2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	06/18/04
Address:	2100 Main Street, Suite 150	Date Received:	05/25/04
	Huntington Beach, CA 92648	CAS Project No:	P2401104
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202 / 31

Client Project ID: Ascon Landfill/SB0202 / 31

Fourteen (14) Stainless Steel Summa Canisters labeled:

"PNL-L5-100-SFU"	"PNL-L5A-SFU"	"PNL-L5A-SFC1"
"PNL-L5A-SFC2"	"PNL-L4B-SFU"	"PNL-L4B-SFC1"
"PNL-L4B-SFC2"	"PNL-L4A-SFU"	"PNL-L4A-SFC1
"PNL-L4A-SFC2"	"PNL-L5B-SFU"	"PNL-L5B-SFC1"
"PNL-L5B-SFC2"	"PNL-L3B-SFU"	

The samples were received at the laboratory under chain of custody on May 25, 2004. The sample labeled "PNL-L3B-SFU" was not received. Otherwise, the samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

C1 through C6 Hydrocarbon Analysis

The samples were analyzed per modified EPA Method TO-3 for C_1 through $>C_6$ hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID).

Reviewed and Approved:

Aristotle Bragasin
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

ACIL Seal of Excellence Award

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

CAS Project No: P2401104

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds and tentatively identified compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical systems used were comprised of Hewlett Packard Models 5972 GC/MS/DS and 5973 GC/MS/DS each interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

NELAP Accredited ACIL Seal of Excellence Award

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5-100-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-001

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00203

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 5/28/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.60	
C_2 as Ethane	ND	0.60	
C_3 as Propane	ND	0.60	
C_4 as n-Butane	ND	0.60	
C_5 as n-Pentane	ND	0.60	
C_6 as n-Hexane	ND	0.60	
C_6+ as n-Hexane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-002

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00140

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 5/28/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**23**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	ND	0.62	
C_6 as n-Hexane	ND	0.62	
C_6+ as n-Hexane	**18**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-003

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00408

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 5/28/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**22**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	ND	0.62	
C_6 as n-Hexane	ND	0.62	
C_6+ as n-Hexane	**16**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-004

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00180

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 5/28/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**0.84**	0.63	
C_2 as Ethane	ND	0.63	
C_3 as Propane	ND	0.63	
C_4 as n-Butane	ND	0.63	
C_5 as n-Pentane	ND	0.63	
C_6 as n-Hexane	ND	0.63	
C_6+ as n-Hexane	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-005

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00477

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**23**	0.63	
C_2 as Ethane	ND	0.63	
C_3 as Propane	ND	0.63	
C_4 as n-Butane	ND	0.63	
C_5 as n-Pentane	ND	0.63	
C_6 as n-Hexane	**1.2**	0.63	
C_6+ as n-Hexane	**68**	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-006

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00118

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**52**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	**0.89**	0.62	
C_5 as n-Pentane	**1.6**	0.62	
C_6 as n-Hexane	**3.3**	0.62	
C_6+ as n-Hexane	**130**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-007

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00086

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**0.71**	0.63	
C_2 as Ethane	ND	0.63	
C_3 as Propane	ND	0.63	
C_4 as n-Butane	ND	0.63	
C_5 as n-Pentane	ND	0.63	
C_6 as n-Hexane	ND	0.63	
C_6+ as n-Hexane	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-008

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00045

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**20**	0.63	
C_2 as Ethane	ND	0.63	
C_3 as Propane	ND	0.63	
C_4 as n-Butane	ND	0.63	
C_5 as n-Pentane	ND	0.63	
C_6 as n-Hexane	ND	0.63	
C_6+ as n-Hexane	**19**	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.C. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-009

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00534

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.4 Pf 1 = 3.5

D.F. = 1.27

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**9.2**	0.64	
C_2 as Ethane	ND	0.64	
C_3 as Propane	ND	0.64	
C_4 as n-Butane	ND	0.64	
C_5 as n-Pentane	ND	0.64	
C_6 as n-Hexane	ND	0.64	
C_6+ as n-Hexane	**17**	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-010

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00302

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**9.0**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	ND	0.62	
C_6 as n-Hexane	ND	0.62	
C_6+ as n-Hexane	**4.6**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-011

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00571

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**32**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**12**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-012

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00061

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**26**	0.60	
C_2 as Ethane	ND	0.60	
C_3 as Propane	ND	0.60	
C_4 as n-Butane	ND	0.60	
C_5 as n-Pentane	ND	0.60	
C_6 as n-Hexane	ND	0.60	
C_6+ as n-Hexane	**18**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P2401104-013

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00172

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/1/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**23**	0.60	
C_2 as Ethane	ND	0.60	
C_3 as Propane	ND	0.60	
C_4 as n-Butane	ND	0.60	
C_5 as n-Pentane	ND	0.60	
C_6 as n-Hexane	ND	0.60	
C_6+ as n-Hexane	**5.0**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P040528-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/28/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C_2 as Ethane	ND	0.50	
C_3 as Propane	ND	0.50	
C_4 as n-Butane	ND	0.50	
C_5 as n-Pentane	ND	0.50	
C_6 as n-Hexane	ND	0.50	
C_6+ as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: K.G. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID : P2401104
CAS Sample ID : P040601-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/01/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C_2 as Ethane	ND	0.50	
C_3 as Propane	ND	0.50	
C_4 as n-Butane	ND	0.50	
C_5 as n-Pentane	ND	0.50	
C_6 as n-Hexane	ND	0.50	
C_6+ as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5-100-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00203

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.61	ND	0.29	
75-01-4	Vinyl Chloride	ND	0.61	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.61	ND	0.27	
74-83-9	Bromomethane	ND	0.61	ND	0.16	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
67-64-1	Acetone	ND	6.1	ND	2.5	
75-69-4	Trichlorofluoromethane	ND	0.61	ND	0.11	
107-13-1	Acrylonitrile	ND	0.61	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-09-2	Methylene chloride	ND	0.61	ND	0.17	
76-13-1	Trichlorotrifluoroethane	ND	0.61	ND	0.079	
75-15-0	Carbon Disulfide	ND	0.61	ND	0.19	
156-60-5	trans-1,2-Dichloroethene	ND	0.61	ND	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.61	ND	0.17	
108-05-4	Vinyl Acetate	ND	0.61	ND	0.17	
78-93-3	2-Butanone (MEK)	ND	0.61	ND	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.61	ND	0.15	
67-66-3	Chloroform	ND	0.61	ND	0.12	
107-06-2	1,2-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	
71-43-2	Benzene	ND	0.61	ND	0.19	
56-23-5	Carbon Tetrachloride	ND	0.61	ND	0.096	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RCr Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5-100-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00203

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.61	ND	0.13	
75-27-4	Bromodichloromethane	ND	0.61	ND	0.090	
79-01-6	Trichloroethene	ND	0.61	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.61	ND	0.13	
108-10-1	4-Methyl-2-pentanone	ND	0.61	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.61	ND	0.13	
79-00-5	1,1,2-Trichloroethane	ND	0.61	ND	0.11	
108-88-3	Toluene	ND	0.61	ND	0.16	
591-78-6	2-Hexanone	ND	0.61	ND	0.15	
124-48-1	Dibromochloromethane	ND	0.61	ND	0.071	
106-93-4	1,2-Dibromoethane	ND	0.61	ND	0.079	
127-18-4	Tetrachloroethene	**2.9**	0.61	**0.42**	0.089	
108-90-7	Chlorobenzene	ND	0.61	ND	0.13	
100-41-4	Ethylbenzene	ND	0.61	ND	0.14	
136777-61-2	*m,p*-Xylenes	ND	1.2	ND	0.28	
75-25-2	Bromoform	ND	0.61	ND	0.059	
100-42-5	Styrene	ND	0.61	ND	0.14	
95-47-6	o-Xylene	ND	0.61	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.61	ND	0.088	
541-73-1	1,3-Dichlorobenzene	ND	0.61	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.61	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.61	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5-100-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-001

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00203

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
26.35	n-Undecane	5	
27.92	Naphthalene	2	
29.28	n-Tridecane	6	
30.53	n-Tetradecane	4	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00140

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	21	ND	10	
75-01-4	Vinyl Chloride	ND	21	ND	8.1	
106-99-0	1,3-Butadiene	ND	21	ND	9.3	
74-83-9	Bromomethane	ND	21	ND	5.3	
75-00-3	Chloroethane	ND	21	ND	7.8	
67-64-1	Acetone	ND	210	ND	87	
75-69-4	Trichlorofluoromethane	ND	21	ND	3.7	
107-13-1	Acrylonitrile	ND	21	ND	9.5	
75-35-4	1,1-Dichloroethene	ND	21	ND	5.2	
75-09-2	Methylene chloride	ND	21	ND	6.0	
76-13-1	Trichlorotrifluoroethane	ND	21	ND	2.7	
75-15-0	Carbon Disulfide	ND	21	ND	6.6	
156-60-5	trans-1,2-Dichloroethene	ND	21	ND	5.2	
75-34-3	1,1-Dichloroethane	ND	21	ND	5.1	
1634-04-4	Methyl tert-Butyl Ether	ND	21	ND	5.7	
108-05-4	Vinyl Acetate	ND	21	ND	5.9	
78-93-3	2-Butanone (MEK)	ND	21	ND	7.0	
156-59-2	cis-1,2-Dichloroethene	ND	21	ND	5.2	
67-66-3	Chloroform	ND	21	ND	4.2	
107-06-2	1,2-Dichloroethane	ND	21	ND	5.1	
71-55-6	1,1,1-Trichloroethane	ND	21	ND	3.8	
71-43-2	Benzene	ND	21	ND	6.5	
56-23-5	Carbon Tetrachloride	ND	21	ND	3.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RCo Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00140

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	21	ND	4.5	
75-27-4	Bromodichloromethane	ND	21	ND	3.1	
79-01-6	Trichloroethene	ND	21	ND	3.8	
10061-01-5	cis-1,3-Dichloropropene	ND	21	ND	4.6	
108-10-1	4-Methyl-2-pentanone	ND	21	ND	5.0	
10061-02-6	trans-1,3-Dichloropropene	ND	21	ND	4.6	
79-00-5	1,1,2-Trichloroethane	ND	21	ND	3.8	
108-88-3	Toluene	ND	21	ND	5.5	
591-78-6	2-Hexanone	ND	21	ND	5.0	
124-48-1	Dibromochloromethane	ND	21	ND	2.4	
106-93-4	1,2-Dibromoethane	ND	21	ND	2.7	
127-18-4	Tetrachloroethene	ND	21	ND	3.0	
108-90-7	Chlorobenzene	ND	21	ND	4.5	
100-41-4	Ethylbenzene	**150**	21	**34**	4.8	
136777-61-2	*m,p* -Xylenes	**310**	41	**71**	9.5	
75-25-2	Bromoform	ND	21	ND	2.0	
100-42-5	Styrene	ND	21	ND	4.9	
95-47-6	o-Xylene	**160**	21	**36**	4.8	
79-34-5	1,1,2,2-Tetrachloroethane	ND	21	ND	3.0	
541-73-1	1,3-Dichlorobenzene	ND	21	ND	3.4	
106-46-7	1,4-Dichlorobenzene	ND	21	ND	3.4	
95-50-1	1,2-Dichlorobenzene	ND	21	ND	3.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.G. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-002

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00140

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.15	Methylcyclopentane	1,000	
13.51	Dimethylcyclopentane Isomer	1,000	
13.64	Dimethylcyclopentane Isomer	1,000	
13.73	Dimethylcyclopentane Isomer	2,000	
15.30	Methylcyclohexane	2,000	
16.13	Trimethylcyclopentane Isomer	1,000	
16.48	Trimethylcyclopentane Isomer	2,000	
17.90	Dimethylcyclohexane Isomer	1,000	
20.44	Trimethylcyclohexane Isomer	3,000	
20.85	C_9H_{18} Compound	1,000	
23.33	C_9H_{16} Compound	1,000	
23.57	$C_{10}H_{22}$ Branched Alkane	1,000	
24.97	1,2,4-Trimethylbenzene	300	
25.63	1,2,3-Trimethylbenzene	1,000	
28.03	$C_{10}H_{14}$ Aromatic Compound	900	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00408

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	21	ND	10	
75-01-4	Vinyl Chloride	ND	21	ND	8.1	
106-99-0	1,3-Butadiene	ND	21	ND	9.3	
74-83-9	Bromomethane	ND	21	ND	5.3	
75-00-3	Chloroethane	ND	21	ND	7.8	
67-64-1	Acetone	ND	210	ND	87	
75-69-4	Trichlorofluoromethane	ND	21	ND	3.7	
107-13-1	Acrylonitrile	ND	21	ND	9.5	
75-35-4	1,1-Dichloroethene	ND	21	ND	5.2	
75-09-2	Methylene chloride	ND	21	ND	6.0	
76-13-1	Trichlorotrifluoroethane	ND	21	ND	2.7	
75-15-0	Carbon Disulfide	ND	21	ND	6.6	
156-60-5	trans-1,2-Dichloroethene	ND	21	ND	5.2	
75-34-3	1,1-Dichloroethane	ND	21	ND	5.1	
1634-04-4	Methyl tert-Butyl Ether	ND	21	ND	5.7	
108-05-4	Vinyl Acetate	ND	21	ND	5.9	
78-93-3	2-Butanone (MEK)	**21**	21	**7.3**	7.0	
156-59-2	cis-1,2-Dichloroethene	ND	21	ND	5.2	
67-66-3	Chloroform	ND	21	ND	4.2	
107-06-2	1,2-Dichloroethane	ND	21	ND	5.1	
71-55-6	1,1,1-Trichloroethane	ND	21	ND	3.8	
71-43-2	Benzene	**22**	21	**7.0**	6.5	
56-23-5	Carbon Tetrachloride	ND	21	ND	3.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00408

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	21	ND	4.5	
75-27-4	Bromodichloromethane	ND	21	ND	3.1	
79-01-6	Trichloroethene	ND	21	ND	3.8	
10061-01-5	cis-1,3-Dichloropropene	ND	21	ND	4.6	
108-10-1	4-Methyl-2-pentanone	ND	21	ND	5.0	
10061-02-6	trans-1,3-Dichloropropene	ND	21	ND	4.6	
79-00-5	1,1,2-Trichloroethane	ND	21	ND	3.8	
108-88-3	Toluene	ND	21	ND	5.5	
591-78-6	2-Hexanone	ND	21	ND	5.0	
124-48-1	Dibromochloromethane	ND	21	ND	2.4	
106-93-4	1,2-Dibromoethane	ND	21	ND	2.7	
127-18-4	Tetrachloroethene	ND	21	ND	3.0	
108-90-7	Chlorobenzene	ND	21	ND	4.5	
100-41-4	Ethylbenzene	**200**	21	**47**	4.8	
136777-61-2	*m,p* -Xylenes	**400**	41	**92**	9.5	
75-25-2	Bromoform	ND	21	ND	2.0	
100-42-5	Styrene	ND	21	ND	4.9	
95-47-6	o-Xylene	**210**	21	**48**	4.8	
79-34-5	1,1,2,2-Tetrachloroethane	ND	21	ND	3.0	
541-73-1	1,3-Dichlorobenzene	ND	21	ND	3.4	
106-46-7	1,4-Dichlorobenzene	ND	21	ND	3.4	
95-50-1	1,2-Dichlorobenzene	ND	21	ND	3.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-003

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00408

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.030 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.75	Dimethylcyclopentane Isomer	**1,000**	
15.30	Methylcyclohexane	**1,000**	
16.14	Trimethylcyclopentane Isomer	**2,000**	
16.48	Trimethylcyclopentane Isomer	**1,000**	
17.91	Dimethylcyclohexane Isomer	**1,000**	
18.93	C_9H_{18} Compound	**1,000**	
20.44	Trimethylcyclohexane Isomer	**4,000**	
20.85	C_9H_{18} Compound	**1,000**	
21.03	Trimethylcyclohexane Isomer	**1,000**	
23.33	C_9H_{16} Compound	**2,000**	
23.57	$C_{10}H_{22}$ Branched Alkane	**2,000**	
24.43	$C_{10}H_{20}$ Alkene	**2,000**	
24.97	1,2,4-Trimethylbenzene	**400**	
25.63	1,2,3-Trimethylbenzene	**2,000**	
28.03	$C_{10}H_{14}$ Aromatic Compound	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00180

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.63	ND	0.31	
75-01-4	Vinyl Chloride	ND	0.63	ND	0.25	
106-99-0	1,3-Butadiene	ND	0.63	ND	0.28	
74-83-9	Bromomethane	ND	0.63	ND	0.16	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
67-64-1	Acetone	**21**	6.3	**9.0**	2.7	
75-69-4	Trichlorofluoromethane	ND	0.63	ND	0.11	
107-13-1	Acrylonitrile	ND	0.63	ND	0.29	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-09-2	Methylene chloride	ND	0.63	ND	0.18	
76-13-1	Trichlorotrifluoroethane	ND	0.63	ND	0.082	
75-15-0	Carbon Disulfide	**5.2**	0.63	**1.7**	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.63	ND	0.17	
108-05-4	Vinyl Acetate	ND	0.63	ND	0.18	
78-93-3	2-Butanone (MEK)	**1.6**	0.63	**0.54**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.63	ND	0.16	
67-66-3	Chloroform	**4.6**	0.63	**0.94**	0.13	
107-06-2	1,2-Dichloroethane	ND	0.63	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.63	ND	0.12	
71-43-2	Benzene	**3.9**	0.63	**1.2**	0.20	
56-23-5	Carbon Tetrachloride	ND	0.63	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00180

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.63	ND	0.14	
75-27-4	Bromodichloromethane	ND	0.63	ND	0.094	
79-01-6	Trichloroethene	ND	0.63	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.63	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.63	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.63	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.63	ND	0.12	
108-88-3	Toluene	**3.5**	0.63	**0.94**	0.17	
591-78-6	2-Hexanone	**0.97**	0.63	**0.24**	0.15	
124-48-1	Dibromochloromethane	ND	0.63	ND	0.074	
106-93-4	1,2-Dibromoethane	ND	0.63	ND	0.082	
127-18-4	Tetrachloroethene	ND	0.63	ND	0.093	
108-90-7	Chlorobenzene	ND	0.63	ND	0.14	
100-41-4	Ethylbenzene	**30**	0.63	**7.0**	0.15	
136777-61-2	*m,p*-Xylenes	**49**	1.3	**11**	0.29	
75-25-2	Bromoform	ND	0.63	ND	0.061	
100-42-5	Styrene	ND	0.63	ND	0.15	
95-47-6	o-Xylene	**20**	0.63	**4.7**	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.63	ND	0.092	
541-73-1	1,3-Dichlorobenzene	ND	0.63	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.63	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.63	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-004

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00180

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
5.39	Acetaldehyde	40	
6.30	Ethanol	50	
7.06	Isopropyl Alcohol	300	
18.73	Hexamethylcyclotrisiloxane (Possible Artifact)	100	
22.99	Propylbenzene	50	
24.05	1,2,4-Trimethylbenzene	30	
24.79	1,2,3-Trimethylbenzene	60	
23.13	Indane	30	
26.09	$C_{10}H_{12}$ Compound	40	
26.21	$C_{10}H_{12}$ Compound	30	
27.37	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	50	
27.92	Naphthalene	20	
30.41	$C_{14}H_{28}$ Compound	80	
30.54	$C_{14}H_{28}$ Compound	50	
30.72	$C_{14}H_{28}$ Compound	40	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00477

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	32	ND	15	
75-01-4	Vinyl Chloride	ND	32	ND	12	
106-99-0	1,3-Butadiene	ND	32	ND	14	
74-83-9	Bromomethane	ND	32	ND	8.1	
75-00-3	Chloroethane	ND	32	ND	12	
67-64-1	Acetone	ND	320	ND	130	
75-69-4	Trichlorofluoromethane	ND	32	ND	5.6	
107-13-1	Acrylonitrile	ND	32	ND	15	
75-35-4	1,1-Dichloroethene	ND	32	ND	7.9	
75-09-2	Methylene chloride	**35**	32	**10**	9.1	
76-13-1	Trichlorotrifluoroethane	ND	32	ND	4.1	
75-15-0	Carbon Disulfide	ND	32	ND	10	
156-60-5	trans-1,2-Dichloroethene	ND	32	ND	7.9	
75-34-3	1,1-Dichloroethane	ND	32	ND	7.8	
1634-04-4	Methyl tert-Butyl Ether	ND	32	ND	8.7	
108-05-4	Vinyl Acetate	ND	32	ND	8.9	
78-93-3	2-Butanone (MEK)	ND	32	ND	11	
156-59-2	cis-1,2-Dichloroethene	ND	32	ND	7.9	
67-66-3	Chloroform	ND	32	ND	6.5	
107-06-2	1,2-Dichloroethane	ND	32	ND	7.8	
71-55-6	1,1,1-Trichloroethane	ND	32	ND	5.8	
71-43-2	Benzene	**320**	32	**100**	9.9	
56-23-5	Carbon Tetrachloride	ND	32	ND	5.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00477

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	32	ND	6.8	
75-27-4	Bromodichloromethane	ND	32	ND	4.7	
79-01-6	Trichloroethene	ND	32	ND	5.9	
10061-01-5	cis-1,3-Dichloropropene	ND	32	ND	6.9	
108-10-1	4-Methyl-2-pentanone	ND	32	ND	7.7	
10061-02-6	trans-1,3-Dichloropropene	ND	32	ND	6.9	
79-00-5	1,1,2-Trichloroethane	ND	32	ND	5.8	
108-88-3	Toluene	**180**	32	**47**	8.4	
591-78-6	2-Hexanone	ND	32	ND	7.7	
124-48-1	Dibromochloromethane	ND	32	ND	3.7	
106-93-4	1,2-Dibromoethane	ND	32	ND	4.1	
127-18-4	Tetrachloroethene	ND	32	ND	4.6	
108-90-7	Chlorobenzene	ND	32	ND	6.8	
100-41-4	Ethylbenzene	**870**	32	**200**	7.3	
136777-61-2	*m,p* -Xylenes	**1,400**	63	**320**	15	
75-25-2	Bromoform	ND	32	ND	3.0	
100-42-5	Styrene	ND	32	ND	7.4	
95-47-6	o-Xylene	**300**	32	**70**	7.3	
79-34-5	1,1,2,2-Tetrachloroethane	ND	32	ND	4.6	
541-73-1	1,3-Dichlorobenzene	ND	32	ND	5.2	
106-46-7	1,4-Dichlorobenzene	ND	32	ND	5.2	
95-50-1	1,2-Dichlorobenzene	ND	32	ND	5.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-005

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00477

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = -0.2 Pf 1 = 3.5

D.F. = 1.26

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.17	Methylcyclopentane	**3,000**	
13.53	Dimethylcyclopentane Isomer	**3,000**	
13.65	Dimethylcyclopentane Isomer	**3,000**	
13.78	Dimethylcyclopentane Isomer	**4,000**	
15.32	Methylcyclohexane	**4,000**	
16.15	Trimethylcyclopentane Isomer	**3,000**	
16.50	Trimethylcyclopentane Isomer	**4,000**	
17.92	Dimethylcyclohexane Isomer	**3,000**	
20.46	Trimethylcyclohexane Isomer	**6,000**	
20.87	C_9H_{18} Compound	**2,000**	
23.34	C_9H_{16} Compound	**3,000**	
23.59	$C_{10}H_{22}$ Branched Alkane	**3,000**	
24.44	$C_{10}H_{20}$ Compound	**3,000**	
24.98	1,2,4-Trimethylbenzene	**1,000**	
25.64	1,2,3-Trimethylbenzene	**3,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00118

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.0050 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	130	ND	61	
75-01-4	Vinyl Chloride	ND	130	ND	49	
106-99-0	1,3-Butadiene	ND	130	ND	57	
74-83-9	Bromomethane	ND	130	ND	32	
75-00-3	Chloroethane	ND	130	ND	47	
67-64-1	Acetone	ND	1,300	ND	530	
75-69-4	Trichlorofluoromethane	ND	130	ND	22	
107-13-1	Acrylonitrile	ND	130	ND	58	
75-35-4	1,1-Dichloroethene	ND	130	ND	32	
75-09-2	Methylene chloride	ND	130	ND	36	
76-13-1	Trichlorotrifluoroethane	ND	130	ND	16	
75-15-0	Carbon Disulfide	ND	130	ND	40	
156-60-5	trans-1,2-Dichloroethene	ND	130	ND	32	
75-34-3	1,1-Dichloroethane	ND	130	ND	31	
1634-04-4	Methyl tert-Butyl Ether	ND	130	ND	35	
108-05-4	Vinyl Acetate	ND	130	ND	36	
78-93-3	2-Butanone (MEK)	ND	130	ND	42	
156-59-2	cis-1,2-Dichloroethene	ND	130	ND	32	
67-66-3	Chloroform	ND	130	ND	26	
107-06-2	1,2-Dichloroethane	ND	130	ND	31	
71-55-6	1,1,1-Trichloroethane	ND	130	ND	23	
71-43-2	Benzene	**660**	130	**210**	39	
56-23-5	Carbon Tetrachloride	ND	130	ND	20	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00118

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.0050 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	130	ND	27	
75-27-4	Bromodichloromethane	ND	130	ND	19	
79-01-6	Trichloroethene	ND	130	ND	23	
10061-01-5	cis-1,3-Dichloropropene	ND	130	ND	28	
108-10-1	4-Methyl-2-pentanone	ND	130	ND	31	
10061-02-6	trans-1,3-Dichloropropene	ND	130	ND	28	
79-00-5	1,1,2-Trichloroethane	ND	130	ND	23	
108-88-3	Toluene	**360**	130	**94**	33	
591-78-6	2-Hexanone	ND	130	ND	31	
124-48-1	Dibromochloromethane	ND	130	ND	15	
106-93-4	1,2-Dibromoethane	ND	130	ND	16	
127-18-4	Tetrachloroethene	ND	130	ND	18	
108-90-7	Chlorobenzene	ND	130	ND	27	
100-41-4	Ethylbenzene	**1,600**	130	**370**	29	
136777-61-2	*m,p* -Xylenes	**2,700**	250	**620**	58	
75-25-2	Bromoform	ND	130	ND	12	
100-42-5	Styrene	ND	130	ND	29	
95-47-6	o-Xylene	**650**	130	**150**	29	
79-34-5	1,1,2,2-Tetrachloroethane	ND	130	ND	18	
541-73-1	1,3-Dichlorobenzene	ND	130	ND	21	
106-46-7	1,4-Dichlorobenzene	ND	130	ND	21	
95-50-1	1,2-Dichlorobenzene	ND	130	ND	21	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.C. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-006

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00118

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.0050 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.16	Methylcyclopentane	10,000	
13.51	Dimethylcyclopentane Isomer	10,000	
13.63	Dimethylcyclopentane Isomer	10,000	
13.76	Dimethylcyclopentane Isomer	10,000	
15.31	Methylcyclohexane	10,000	
16.14	Trimethylcyclopentane Isomer	9,000	
16.48	Trimethylcyclopentane Isomer	10,000	
17.91	Dimethylcyclohexane Isomer	10,000	
18.49	C_8H_{16} Compound	7,000	
20.44	Trimethylcyclohexane Isomer	20,000	
20.85	C_9H_{18} Compound	7,000	
23.33	C_9H_{16} Compound	9,000	
23.57	$C_{10}H_{22}$ Branched Alkane	7,000	
24.43	$C_{10}H_{20}$ Compound	7,000	
25.64	1,2,3-Trimethylbenzene	7,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00086

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.63	ND	0.31	
75-01-4	Vinyl Chloride	ND	0.63	ND	0.25	
106-99-0	1,3-Butadiene	ND	0.63	ND	0.28	
74-83-9	Bromomethane	ND	0.63	ND	0.16	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
67-64-1	Acetone	**66**	6.3	**28**	2.7	
75-69-4	Trichlorofluoromethane	ND	0.63	ND	0.11	
107-13-1	Acrylonitrile	ND	0.63	ND	0.29	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-09-2	Methylene chloride	**0.71**	0.63	**0.20**	0.18	
76-13-1	Trichlorotrifluoroethane	ND	0.63	ND	0.082	
75-15-0	Carbon Disulfide	**85**	0.63	**27**	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.63	ND	0.17	
108-05-4	Vinyl Acetate	**28**	0.63	**7.8**	0.18	
78-93-3	2-Butanone (MEK)	**10**	0.63	**3.5**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.63	ND	0.16	
67-66-3	Chloroform	**3.3**	0.63	**0.67**	0.13	
107-06-2	1,2-Dichloroethane	ND	0.63	ND	0.16	
71-55-6	1,1,1-Trichloroethane	**1.1**	0.63	**0.21**	0.12	
71-43-2	Benzene	**73**	0.63	**23**	0.20	
56-23-5	Carbon Tetrachloride	ND	0.63	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00086

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.63	ND	0.14	
75-27-4	Bromodichloromethane	ND	0.63	ND	0.094	
79-01-6	Trichloroethene	ND	0.63	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.63	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.63	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.63	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.63	ND	0.12	
108-88-3	Toluene	**29**	0.63	**7.8**	0.17	
591-78-6	2-Hexanone	ND	0.63	ND	0.15	
124-48-1	Dibromochloromethane	ND	0.63	ND	0.074	
106-93-4	1,2-Dibromoethane	ND	0.63	ND	0.082	
127-18-4	Tetrachloroethene	ND	0.63	ND	0.093	
108-90-7	Chlorobenzene	ND	0.63	ND	0.14	
100-41-4	Ethylbenzene	**120**	0.63	**28**	0.15	
136777-61-2	*m,p* -Xylenes	**180**	1.3	**41**	0.29	
75-25-2	Bromoform	ND	0.63	ND	0.061	
100-42-5	Styrene	ND	0.63	ND	0.15	
95-47-6	o-Xylene	**38**	0.63	**8.7**	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.63	ND	0.092	
541-73-1	1,3-Dichlorobenzene	ND	0.63	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.63	ND	0.10	
95-50-1	1,2-Dichlorobenzene	**1.5**	0.63	**0.25**	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-007

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00086

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/8/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5
D.F. = 1.26

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
7.06	Isopropyl Alcohol	100	
18.73	Hexamethylcyclotrisiloxane (Possible Artifact)	70	
22.99	n-Propylbenzene	60	
23.17	3-Ethyltoluene	40	
23.23	4-Ethyltoluene	30	
24.06	1,2,4-Trimethylbenzene	100	
24.79	1,2,3-Trimethylbenzene	200	
25.13	Indane	50	
26.09	$C_{10}H_{12}$ Compound	60	
26.21	$C_{10}H_{12}$ Compound	50	
27.37	$C_{10}H_{14}$ Aromatic Compound	90	
27.92	Naphthalene	30	
30.41	$C_{14}H_{28}$ Compound	80	
30.54	$C_{14}H_{28}$ Compound	50	
30.72	$C_{14}H_{28}$ Compound	40	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: Ri Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00045

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	13	ND	6.1	
75-01-4	Vinyl Chloride	ND	13	ND	4.9	
106-99-0	1,3-Butadiene	ND	13	ND	5.7	
74-83-9	Bromomethane	ND	13	ND	3.2	
75-00-3	Chloroethane	ND	13	ND	4.8	
67-64-1	Acetone	**160**	130	**66**	53	**M**
75-69-4	Trichlorofluoromethane	ND	13	ND	2.2	
107-13-1	Acrylonitrile	ND	13	ND	5.8	
75-35-4	1,1-Dichloroethene	ND	13	ND	3.2	
75-09-2	Methylene chloride	ND	13	ND	3.6	
76-13-1	Trichlorotrifluoroethane	ND	13	ND	1.6	
75-15-0	Carbon Disulfide	ND	13	ND	4.0	
156-60-5	trans-1,2-Dichloroethene	ND	13	ND	3.2	
75-34-3	1,1-Dichloroethane	ND	13	ND	3.1	
1634-04-4	Methyl tert-Butyl Ether	ND	13	ND	3.5	
108-05-4	Vinyl Acetate	ND	13	ND	3.6	
78-93-3	2-Butanone (MEK)	**32**	13	**11**	4.3	
156-59-2	cis-1,2-Dichloroethene	ND	13	ND	3.2	
67-66-3	Chloroform	ND	13	ND	2.6	
107-06-2	1,2-Dichloroethane	ND	13	ND	3.1	
71-55-6	1,1,1-Trichloroethane	ND	13	ND	2.3	
71-43-2	Benzene	**130**	13	**40**	3.9	
56-23-5	Carbon Tetrachloride	ND	13	ND	2.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: R.C. Date: 6/16/04

01104VOA.RD1 - Sample (8)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00045

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/8/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	13	ND	2.7	
75-27-4	Bromodichloromethane	ND	13	ND	1.9	
79-01-6	Trichloroethene	ND	13	ND	2.3	
10061-01-5	cis-1,3-Dichloropropene	ND	13	ND	2.8	
108-10-1	4-Methyl-2-pentanone	ND	13	ND	3.1	
10061-02-6	trans-1,3-Dichloropropene	ND	13	ND	2.8	
79-00-5	1,1,2-Trichloroethane	ND	13	ND	2.3	
108-88-3	Toluene	**41**	13	**11**	3.3	
591-78-6	2-Hexanone	ND	13	ND	3.1	
124-48-1	Dibromochloromethane	ND	13	ND	1.5	
106-93-4	1,2-Dibromoethane	ND	13	ND	1.6	
127-18-4	Tetrachloroethene	ND	13	ND	1.9	
108-90-7	Chlorobenzene	ND	13	ND	2.7	
100-41-4	Ethylbenzene	**400**	13	**92**	2.9	
136777-61-2	*m,p*-Xylenes	**320**	25	**73**	5.8	
75-25-2	Bromoform	ND	13	ND	1.2	
100-42-5	Styrene	ND	13	ND	3.0	
95-47-6	o-Xylene	**150**	13	**35**	2.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	13	ND	1.8	
541-73-1	1,3-Dichlorobenzene	ND	13	ND	2.1	
106-46-7	1,4-Dichlorobenzene	ND	13	ND	2.1	
95-50-1	1,2-Dichlorobenzene	ND	13	ND	2.1	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-008

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00045

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/8/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

D.F. = 1.26

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.31	Methylcyclopentane	1,000	
13.48	Dimethylcyclopentane Isomer	1,000	
13.59	Dimethylcyclopentane Isomer	1,000	
13.70	Dimethylcyclopentane Isomer	2,000	
15.09	Methylcyclohexane	2,000	
15.81	Trimethylcyclopentane Isomer	1,000	
16.11	Trimethylcyclopentane Isomer	2,000	
17.37	Dimethylcyclohexane Isomer	1,000	
19.71	Trimethylcyclohexane Isomer	3,000	
20.07	C_7H_{14} Compound	900	
20.22	Trimethylcyclohexane Isomer	900	
22.39	C_9H_{16} Compound	1,000	
23.51	$C_{10}H_{20}$ Compound	1,000	
24.06	1,2,4-Trimethylbenzene	400	
24.80	1,2,3-Trimethylbenzene	1,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00534

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.025 Liter(s)

Pi 1 = -0.4 Pf 1 = 3.5

D.F. = 1.27

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	25	ND	12	
75-01-4	Vinyl Chloride	ND	25	ND	9.9	
106-99-0	1,3-Butadiene	ND	25	ND	11	
74-83-9	Bromomethane	ND	25	ND	6.5	
75-00-3	Chloroethane	ND	25	ND	9.6	
67-64-1	Acetone	ND	250	ND	110	
75-69-4	Trichlorofluoromethane	ND	25	ND	4.5	
107-13-1	Acrylonitrile	ND	25	ND	12	
75-35-4	1,1-Dichloroethene	ND	25	ND	6.4	
75-09-2	Methylene chloride	ND	25	ND	7.3	
76-13-1	Trichlorotrifluoroethane	ND	25	ND	3.3	
75-15-0	Carbon Disulfide	ND	25	ND	8.2	
156-60-5	trans-1,2-Dichloroethene	ND	25	ND	6.4	
75-34-3	1,1-Dichloroethane	ND	25	ND	6.3	
1634-04-4	Methyl tert-Butyl Ether	ND	25	ND	7.0	
108-05-4	Vinyl Acetate	ND	25	ND	7.2	
78-93-3	2-Butanone (MEK)	ND	25	ND	8.6	
156-59-2	cis-1,2-Dichloroethene	ND	25	ND	6.4	
67-66-3	Chloroform	ND	25	ND	5.2	
107-06-2	1,2-Dichloroethane	ND	25	ND	6.3	
71-55-6	1,1,1-Trichloroethane	ND	25	ND	4.7	
71-43-2	Benzene	**43**	25	**13**	8.0	
56-23-5	Carbon Tetrachloride	ND	25	ND	4.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00534

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.025 Liter(s)

Pi 1 = -0.4 Pf 1 = 3.5

D.F. = 1.27

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	25	ND	5.5	
75-27-4	Bromodichloromethane	ND	25	ND	3.8	
79-01-6	Trichloroethene	ND	25	ND	4.7	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ND	5.6	
108-10-1	4-Methyl-2-pentanone	ND	25	ND	6.2	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ND	5.6	
79-00-5	1,1,2-Trichloroethane	ND	25	ND	4.7	
108-88-3	Toluene	ND	25	ND	6.7	
591-78-6	2-Hexanone	ND	25	ND	6.2	
124-48-1	Dibromochloromethane	ND	25	ND	3.0	
106-93-4	1,2-Dibromoethane	ND	25	ND	3.3	
127-18-4	Tetrachloroethene	ND	25	ND	3.7	
108-90-7	Chlorobenzene	ND	25	ND	5.5	
100-41-4	Ethylbenzene	**220**	25	**51**	5.9	
136777-61-2	*m,p* -Xylenes	**180**	51	**41**	12	
75-25-2	Bromoform	ND	25	ND	2.5	
100-42-5	Styrene	ND	25	ND	6.0	
95-47-6	o-Xylene	**85**	25	**20**	5.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ND	3.7	
541-73-1	1,3-Dichlorobenzene	ND	25	ND	4.2	
106-46-7	1,4-Dichlorobenzene	ND	25	ND	4.2	
95-50-1	1,2-Dichlorobenzene	ND	25	ND	4.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-009

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00534

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.025 Liter(s)

Pi 1 = -0.4 Pf 1 = 3.5
D.F. = 1.27

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.50	Dimethylcyclopentane Isomer	**800**	
13.62	Dimethylcyclopentane Isomer	**800**	
13.74	Dimethylcyclopentane Isomer	**1,000**	
15.29	Methylcyclohexane	**1,000**	
16.47	Trimethylcyclopentane Isomer	**1,000**	
17.89	Dimethylcyclohexane Isomer	**900**	
20.43	Trimethylcyclohexane Isomer	**2,000**	
23.32	C_9H_{16} Compound	**1,000**	
23.57	$C_{10}H_{22}$ Compound	**1,000**	
24.43	$C_{10}H_{20}$ Compound	**1,000**	
24.96	1,2,4-Trimethylbenzene	**300**	
25.63	1,2,3-Trimethylbenzene	**1,000**	
28.56	Naphthalene	**200**	
28.79	$C_{13}H_{28}$ Branched Alkane	**600**	
29.54	$C_{14}H_{30}$ Branched Alkane	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: R.G. Date: 6.11.04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00302

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.2	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.2	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.2	ND	2.8	
74-83-9	Bromomethane	ND	6.2	ND	1.6	
75-00-3	Chloroethane	ND	6.2	ND	2.4	
67-64-1	Acetone	ND	62	ND	26	
75-69-4	Trichlorofluoromethane	ND	6.2	ND	1.1	
107-13-1	Acrylonitrile	ND	6.2	ND	2.9	
75-35-4	1,1-Dichloroethene	ND	6.2	ND	1.6	
75-09-2	Methylene chloride	ND	6.2	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.2	ND	0.81	
75-15-0	Carbon Disulfide	**11**	6.2	**3.6**	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.2	ND	1.6	
75-34-3	1,1-Dichloroethane	ND	6.2	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.2	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.2	ND	1.8	
78-93-3	2-Butanone (MEK)	ND	6.2	ND	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.2	ND	1.6	
67-66-3	Chloroform	ND	6.2	ND	1.3	
107-06-2	1,2-Dichloroethane	ND	6.2	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.2	ND	1.1	
71-43-2	Benzene	**43**	6.2	**13**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.2	ND	0.99	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00302

Date Collected: 5/24/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.2	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.2	ND	0.93	
79-01-6	Trichloroethene	ND	6.2	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	6.2	ND	1.4	
108-10-1	4-Methyl-2-pentanone	ND	6.2	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.2	ND	1.4	
79-00-5	1,1,2-Trichloroethane	ND	6.2	ND	1.1	
108-88-3	Toluene	**16**	6.2	**4.1**	1.6	
591-78-6	2-Hexanone	ND	6.2	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.2	ND	0.73	
106-93-4	1,2-Dibromoethane	ND	6.2	ND	0.81	
127-18-4	Tetrachloroethene	ND	6.2	ND	0.91	
108-90-7	Chlorobenzene	ND	6.2	ND	1.3	
100-41-4	Ethylbenzene	**150**	6.2	**35**	1.4	
136777-61-2	*m,p* -Xylenes	**110**	12	**26**	2.9	
75-25-2	Bromoform	ND	6.2	ND	0.60	
100-42-5	Styrene	ND	6.2	ND	1.5	
95-47-6	o-Xylene	**49**	6.2	**11**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.2	ND	0.90	
541-73-1	1,3-Dichlorobenzene	ND	6.2	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.2	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	6.2	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L4A-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-010

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00302

Date Collected: 5/24/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.16	Methylcyclopentane	300	
13.52	Dimethylcyclopentane Isomer	400	
13.65	Dimethylcyclopentane Isomer	400	
13.77	Dimethylcyclopentane Isomer	600	
15.31	Methylcyclohexane	500	
16.15	Trimethylcyclopentane Isomer	400	
16.49	Trimethylcyclopentane Isomer	600	
17.92	Dimethylcyclohexane Isomer	500	
20.45	Trimethylcyclohexane Isomer	900	
23.33	C_9H_{16} Compound	400	
23.58	$C_{10}H_{22}$ Compound	400	
24.44	$C_{10}H_{20}$ Compound	400	
24.97	1,2,4-Trimethylbenzene	100	
25.64	1,2,3-Trimethylbenzene	400	
28.57	Naphthalene	300	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00571

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.075 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	8.1	ND	3.9	
75-01-4	Vinyl Chloride	ND	8.1	ND	3.2	
106-99-0	1,3-Butadiene	ND	8.1	ND	3.6	
74-83-9	Bromomethane	ND	8.1	ND	2.1	
75-00-3	Chloroethane	ND	8.1	ND	3.1	
67-64-1	Acetone	ND	81	ND	34	
75-69-4	Trichlorofluoromethane	ND	8.1	ND	1.4	
107-13-1	Acrylonitrile	ND	8.1	ND	3.7	
75-35-4	1,1-Dichloroethene	ND	8.1	ND	2.0	
75-09-2	Methylene chloride	ND	8.1	ND	2.3	
76-13-1	Trichlorotrifluoroethane	ND	8.1	ND	1.1	
75-15-0	Carbon Disulfide	**27**	8.1	**8.8**	2.6	
156-60-5	trans-1,2-Dichloroethene	ND	8.1	ND	2.0	
75-34-3	1,1-Dichloroethane	ND	8.1	ND	2.0	
1634-04-4	Methyl tert-Butyl Ether	ND	8.1	ND	2.2	
108-05-4	Vinyl Acetate	ND	8.1	ND	2.3	
78-93-3	2-Butanone (MEK)	**9.2**	8.1	**3.1**	2.7	
156-59-2	cis-1,2-Dichloroethene	ND	8.1	ND	2.0	
67-66-3	Chloroform	ND	8.1	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	8.1	ND	2.0	
71-55-6	1,1,1-Trichloroethane	ND	8.1	ND	1.5	
71-43-2	Benzene	ND	8.1	ND	2.5	
56-23-5	Carbon Tetrachloride	ND	8.1	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00571

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.075 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	8.1	ND	1.7	
75-27-4	Bromodichloromethane	ND	8.1	ND	1.2	
79-01-6	Trichloroethene	ND	8.1	ND	1.5	
10061-01-5	cis-1,3-Dichloropropene	ND	8.1	ND	1.8	
108-10-1	4-Methyl-2-pentanone	ND	8.1	ND	2.0	
10061-02-6	trans-1,3-Dichloropropene	ND	8.1	ND	1.8	
79-00-5	1,1,2-Trichloroethane	ND	8.1	ND	1.5	
108-88-3	Toluene	**12**	8.1	**3.2**	2.1	
591-78-6	2-Hexanone	ND	8.1	ND	2.0	
124-48-1	Dibromochloromethane	ND	8.1	ND	0.95	
106-93-4	1,2-Dibromoethane	ND	8.1	ND	1.1	
127-18-4	Tetrachloroethene	ND	8.1	ND	1.2	
108-90-7	Chlorobenzene	ND	8.1	ND	1.8	
100-41-4	Ethylbenzene	**400**	8.1	**93**	1.9	
136777-61-2	*m,p* -Xylenes	ND	16	ND	3.7	
75-25-2	Bromoform	ND	8.1	ND	0.78	
100-42-5	Styrene	ND	8.1	ND	1.9	
95-47-6	o-Xylene	**11**	8.1	**2.5**	1.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.1	ND	1.2	
541-73-1	1,3-Dichlorobenzene	ND	8.1	ND	1.3	
106-46-7	1,4-Dichlorobenzene	ND	8.1	ND	1.3	
95-50-1	1,2-Dichlorobenzene	ND	8.1	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFU**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-011

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00571

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.075 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.76	Dimethylcyclopentane Isomer	1,000	
16.15	Trimethylcyclopentane Isomer	800	
16.49	Trimethylcyclopentane Isomer	1,000	
17.92	Trimethylcyclopentane Isomer	700	
18.50	C_8H_{16} Compound	700	
18.81	Dimethylcyclohexane Isomer	700	
20.45	Trimethylcyclohexane Isomer	1,000	
23.10	Cumene	700	
23.34	C_9H_{16} Compound	1,000	
23.58	$C_{10}H_{20}$ Compound	700	
23.95	n-Propylbenzene	700	
24.44	$C_{10}H_{20}$ Compound	800	
26.94	$C_{10}H_{12}$ Compound	700	
28.03	$C_{10}H_{14}$ Aromatic Compound	800	
29.56	$C_{14}H_{30}$ Branched Alkane	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: R.G. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00061

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.0	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.0	ND	2.3	
106-99-0	1,3-Butadiene	ND	6.0	ND	2.7	
74-83-9	Bromomethane	ND	6.0	ND	1.5	
75-00-3	Chloroethane	ND	6.0	ND	2.3	
67-64-1	Acetone	ND	60	ND	25	
75-69-4	Trichlorofluoromethane	ND	6.0	ND	1.1	
107-13-1	Acrylonitrile	ND	6.0	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.0	ND	1.5	
75-09-2	Methylene chloride	ND	6.0	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.0	ND	0.78	
75-15-0	Carbon Disulfide	**7.8**	6.0	**2.5**	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.0	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.0	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.0	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.0	ND	1.7	
78-93-3	2-Butanone (MEK)	**7.6**	6.0	**2.6**	2.0	
156-59-2	cis-1,2-Dichloroethene	ND	6.0	ND	1.5	
67-66-3	Chloroform	ND	6.0	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.0	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.0	ND	1.1	
71-43-2	Benzene	**6.1**	6.0	**1.9**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.0	ND	0.95	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00061

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.0	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.0	ND	0.90	
79-01-6	Trichloroethene	ND	6.0	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.0	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.0	ND	1.1	
108-88-3	Toluene	**8.4**	6.0	**2.2**	1.6	
591-78-6	2-Hexanone	ND	6.0	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.0	ND	0.70	
106-93-4	1,2-Dibromoethane	ND	6.0	ND	0.78	
127-18-4	Tetrachloroethene	ND	6.0	ND	0.89	
108-90-7	Chlorobenzene	ND	6.0	ND	1.3	
100-41-4	Ethylbenzene	**440**	6.0	**100**	1.4	
136777-61-2	*m,p*-Xylenes	**24**	12	**5.6**	2.8	
75-25-2	Bromoform	ND	6.0	ND	0.58	
100-42-5	Styrene	ND	6.0	ND	1.4	
95-47-6	o-Xylene	**7.3**	6.0	**1.7**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	ND	0.87	
541-73-1	1,3-Dichlorobenzene	ND	6.0	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.0	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**7.7**	6.0	**1.3**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC1**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-012

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00061

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.77	Dimethylcyclopentane Isomer	1,000	
16.15	Trimethylcyclopentane Isomer	1,000	
16.50	Trimethylcyclopentane Isomer	1,000	
17.93	Trimethylcyclopentane Isomer	900	
18.81	Dimethylcyclohexane Isomer	800	
20.46	Trimethylcyclohexane Isomer	1,000	
20.87	C_9H_{18} Compound	1,000	
23.10	Cumene	700	
23.35	C_9H_{16} Compound	1,000	
23.58	$C_{10}H_{22}$ Branched Alkane	1,000	
23.95	Propylbenzene	800	
24.44	$C_{10}H_{20}$ Compound	1,000	
28.03	$C_{10}H_{14}$ Aromatic Compound	700	
29.55	$C_{14}H_{30}$ Branched Alkane	900	
18.94	C_9H_{18} Compound	800	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 6-16-04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00172

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.25 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.4	ND	1.2	
75-01-4	Vinyl Chloride	ND	2.4	ND	0.95	
106-99-0	1,3-Butadiene	ND	2.4	ND	1.1	
74-83-9	Bromomethane	ND	2.4	ND	0.62	
75-00-3	Chloroethane	ND	2.4	ND	0.92	
67-64-1	Acetone	**52**	24	**22**	10	**M**
75-69-4	Trichlorofluoromethane	ND	2.4	ND	0.43	
107-13-1	Acrylonitrile	**10**	2.4	**4.7**	1.1	
75-35-4	1,1-Dichloroethene	ND	2.4	ND	0.61	
75-09-2	Methylene chloride	ND	2.4	ND	0.70	
76-13-1	Trichlorotrifluoroethane	ND	2.4	ND	0.32	
75-15-0	Carbon Disulfide	**8.6**	2.4	**2.8**	0.78	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	ND	0.61	
75-34-3	1,1-Dichloroethane	ND	2.4	ND	0.60	
1634-04-4	Methyl tert-Butyl Ether	ND	2.4	ND	0.67	
108-05-4	Vinyl Acetate	ND	2.4	ND	0.69	
78-93-3	2-Butanone (MEK)	**5.5**	2.4	**1.9**	0.82	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	ND	0.61	
67-66-3	Chloroform	ND	2.4	ND	0.50	
107-06-2	1,2-Dichloroethane	ND	2.4	ND	0.60	
71-55-6	1,1,1-Trichloroethane	ND	2.4	ND	0.44	
71-43-2	Benzene	**23**	2.4	**7.3**	0.76	
56-23-5	Carbon Tetrachloride	ND	2.4	ND	0.38	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00172

Date Collected: 5/25/04
Date Received: 5/25/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 0.25 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	2.4	ND	0.52	
75-27-4	Bromodichloromethane	ND	2.4	ND	0.36	
79-01-6	Trichloroethene	ND	2.4	ND	0.45	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ND	0.53	
108-10-1	4-Methyl-2-pentanone	ND	2.4	ND	0.59	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	ND	0.53	
79-00-5	1,1,2-Trichloroethane	ND	2.4	ND	0.44	
108-88-3	Toluene	**59**	2.4	**16**	0.64	
591-78-6	2-Hexanone	ND	2.4	ND	0.59	
124-48-1	Dibromochloromethane	ND	2.4	ND	0.28	
106-93-4	1,2-Dibromoethane	ND	2.4	ND	0.32	
127-18-4	Tetrachloroethene	ND	2.4	ND	0.36	
108-90-7	Chlorobenzene	ND	2.4	ND	0.53	
100-41-4	Ethylbenzene	**230**	2.4	**53**	0.56	
136777-61-2	*m,p* -Xylenes	**25**	4.8	**5.8**	1.1	
75-25-2	Bromoform	ND	2.4	ND	0.23	
100-42-5	Styrene	**200**	2.4	**48**	0.57	
95-47-6	o-Xylene	**7.7**	2.4	**1.8**	0.56	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	ND	0.35	
541-73-1	1,3-Dichlorobenzene	ND	2.4	ND	0.40	
106-46-7	1,4-Dichlorobenzene	ND	2.4	ND	0.40	
95-50-1	1,2-Dichlorobenzene	**3.3**	2.4	**0.55**	0.40	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L5B-SFC2**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P2401104-013

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00172

Date Collected: 5/25/04
Date Received: 5/25/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 0.25 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.76	Dimethylcyclopentane Isomer	500	
15.23	Dimethylcyclopentane Isomer	300	
15.31	Methylcyclohexane	300	
16.14	Trimethylcyclopentane Isomer	400	
16.49	Trimethylcyclopentane Isomer	600	
17.92	Trimethylcyclopentane Isomer	300	
18.50	C_8H_{16} Compound	300	
18.80	Dimethylcyclohexane Isomer	300	
20.44	Trimethylcyclohexane Isomer	500	
23.09	Cumene	300	
23.33	C_9H_{16} Compound	400	
23.57	$C_{10}H_{20}$ Compound	300	
23.94	n-Propylbenzene	300	
24.43	$C_{10}H_{20}$ Compound	300	
28.03	$C_{10}H_{14}$ Aromatic Compound	300	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040607-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/16/04

01104VOA.RD1 - MBlank

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040607-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040607-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/7/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: RB Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040609-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040609-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040609-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040610-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.C. Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040610-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/16/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon Landfill/SB0202 / 31**

CAS Project ID: P2401104
CAS Sample ID: P040610-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: R.G. Date: 6/16/04

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401104

Project: Ascon Landfill/SB0202 / 31

Sample(s) received on: 5/25/04 Date opened: 5/25/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☐	☒	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401104-001			NA	
P2401104-002			NA	
P2401104-003			NA	
P2401104-004			NA	
P2401104-005			NA	
P2401104-006			NA	
P2401104-007			NA	
P2401104-008			NA	
P2401104-009			NA	
P2401104-010			NA	

Explain any discrepancies: (include lab sample ID numbers):
P2401104-005: SAMPLE ID ON ID TAG: PNL-L5B-SFU. -006: SAMPLE ID ON ID: PNL-L5B-SFC1 -007: SAMPLE ID ON TAG: PNL-L5B-SFC2 Last sample on the COC: Client still has the canister. Requested to mark off per the client.

6/16/04 9:55 AM

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401104

Project: Ascon Landfill/SB0202 / 31

Sample(s) received on: 5/25/04 Date opened: 5/25/04 by: SM

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401104-011			NA	
P2401104-012			NA	
P2401104-013			NA	

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

Client/Address: GeoSyntec Consultants, 2100 Main St. #150, Huntington Beach, CA 92648

Phone (714) 969-0800 Fax (714) 969-0820

Email mreardon@geosyntec.com

Contact: Mike Reardon

Sampler (Signature): [signature]

Project Name: ASCON LANDFILL

Project Number: SB0202/31

Sampling Location: Huntington Beach

P.O. #/Billing Information: SB0202/31 GeoSyntec

CAS Project No.: P2401104

Cooler / Blank Temp.

Analysis: TO-15/TO3 PROJECT LIST

Expected Turnaround Time: 24 Hr 48Hr 3Day 4Day 5Day Standard (10 Business Days)

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	~~Flow Controller~~ (Serial #)	Sample Volume (Liters)	TO-15/TO3 PROJECT LIST				Expected Turnaround Time	Comments (e.g., preservative or specific instructions)
PNL-L5-100-SFU	05/24/04	8:48	-1	SOIL FLUX	00219	SC00203	6	X				10	
PNL-L5A-SFU	05/24/04	10:56	-2	"	00296	SC00140	6	X					
PNL-L5A-SFC1	"	11:50	-3	"	00401	SC00408	6	X					
PNL-L5A-SFC2	"	12:10	-4	"	00126	SC00180	6	X					
PNL-L4B-SFU	"	13:19	-5	"	01533	SC00477	6	X					"L5B-SFU"
PNL-L4B-SFC1	"	14:04	-6	"	00382	SC00118	6	X					L5B
PNL-L4B-SFC2	"	13:51	-7	"	00497	SC00086	6	X					L5B
PNL-L4A SFU	"	15:14	-8	"	00193	SC00045	6	X					
PNL-L4A-SFC1	"	16:05	-9	"	00450	SC00534	6	X					
PNL-L4A-SFC2	"	16:14	-10	"	00267	SC00302	6	X					
PNL-L5B-SFU	05/25/04	9:00	-11	"	00286	SC00571	6	X				X	
PNL-L5B-SFC1	"	9:53	-12	"	00591	SC00061	6	X				X	
PNL-L5B-SFC2	"	9:48	-13	"	00260	SC00172	6	X				X	
PNL-L3B-SFU	"	10:58	-14	"	01180	SC00333	6	X				X	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	05-25-04	11:49	[signature]	5/25/04	1149
[signature]	5/25/04	1315	[signature]	5/25/04	13:15

Additional Comments

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2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	06/14/04
Address:	2100 Main Street, Suite 150	Date Received:	05/26/04
	Huntington Beach, CA 92648	CAS Project No:	P2401105
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202 / 31

Client Project ID: Ascon LF/SB0202 / 31

Five (5) Tedlar Bag Samples labeled:

"PNL-L3B-SFC1S" "PNL-L200-SFUS" "PNL-L3A-SFUS"
"PNL-L3A-SFC1S" "PNL-L3A-SFC2S"

The samples were received at the laboratory under chain of custody on May 26, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per modified methods SCAQMD Method 307-91 and ASTM D 5504-01 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Reviewed and Approved:

Zheng Wang
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

NELAP Accredited ACIL Seal of Excellence Award

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC1S**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P2401105-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/25/04
Time Collected: 11:53
Date Received: 5/26/04
Date Analyzed: 5/26/04
Time Analyzed: 10:27
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**7.88**	7.80	**2.53**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/10/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L200-SFUS**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P2401105-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/25/04
Time Collected: 13:12
Date Received: 5/26/04
Date Analyzed: 5/26/04
Time Analyzed: 10:49
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	ND	7.80	ND	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/10/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFUS**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P2401105-003

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/25/04
Time Collected: 14:42
Date Received: 5/26/04
Date Analyzed: 5/26/04
Time Analyzed: 11:55
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**3.41**	7.00	**2.45**	5.00	**J**
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	ND	7.80	ND	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: KLH Date: 06/01/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC1S**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P2401105-004

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/25/04
Time Collected: 15:40
Date Received: 5/26/04
Date Analyzed: 5/26/04
Time Analyzed: 11:33
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**8.56**	7.80	**2.75**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: EHH Date: 06/10/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC2S**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P2401105-005

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/25/04
Time Collected: 15:47
Date Received: 5/26/04
Date Analyzed: 5/26/04
Time Analyzed: 12:25
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**8.93**	7.80	**2.87**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/10/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401105
CAS Sample ID: P040526-MB

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 5/26/04
Time Analyzed: 10:06
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	ND	7.80	ND	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/10/04

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401105

Project: Ascon LF/SB0202 / 31

Sample(s) received on: 5/26/04 Date opened: 5/26/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401105-001			NA	
P2401105-002			NA	
P2401105-003			NA	
P2401105-004			NA	
P2401105-005			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

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5/26/04 9:58 AM

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

Client/Address: GeoSyntec, 2100 Main St. #150, HB, CA 92648

Project Name: Ascon LF

Project Number: SB0202131

Sampling Location: HB, CA

P.O. #/Billing Information: SB0202131 GeoSyntec

CAS Project No.: P2401105

Phone: (714) 969-0800 Fax: (714) 969-0820

Email: mreardon@geosyntec.com

Contact: Mike Reardon

Sampler (Signature): [signature]

Cooler / Blank Temp_____

Analysis: Bulk Asbestos

Expected Turnaround Time: 24 Hr 48Hr 5Day 10Day 5Day Standard (10 Business Days)

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	Flow Controller (Serial #)	Sample Volume (Liters)	Bulk Asbestos					Comments (e.g., preservative or specific instructions)
PNL-L3B-SFC1S	05/25/04	11:53	-1		Box		1	X					
PNL-L200-SFUS	"	13:12	-2		"		1	X					
PNL-L3A-SFUS	"	14:42	-3		"		1	X					
PNL-L3A-SFC1S	"	15:40	-4		"		1	X					
PNL-L3A-SFC2S	"	15:42	-5		"		1	X					

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	05/25/04	16:06	[signature]	5/25/04	1606
[signature]	5/26/04	1645	[signature]	5/26/04	0945

Additional Comments

White Copy: Accompanies Samples — Yellow Copy: Retained by Client — COC #13 7/03

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	06/15/04
Address:	2100 Main Street, Suite 150	Date Received:	05/27/04
	Huntington Beach, CA 92648	CAS Project No:	P2401123
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202 / 31

Client Project ID: SB0202 / 31

Ten (10) Tedlar Bag Samples labeled:

"PNL-L2B-SFUS"	"PNL-L2B-SFC1S"	"PNL-L2B-SFC1SR"	"PNL-L2B-SFC2S"
"PNL-L1B-SFUS"	"PNL-L1B-SFC1S"	"PNL-L1B-SFC2S"	"PNL-L2A-SFUS"
"PNL-L2A-SFC1S"	"PNL-L2A-SFC2S"		

The samples were received at the laboratory under chain of custody on May 27, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per modified methods SCAQMD Method 307-91 and ASTM D 5504-01 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

The sample labeled "PNL-L2B-SFUS" was analyzed outside of holding time.

Reviewed and Approved:

Zheng Wang
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

NELAP Accredited ACIL Seal of Excellence Award

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

CAS Project No: P2401123

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

AFI AP Accredited ACIL Seal of Excellence Award

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFUS**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes: **H**

Date Collected: 5/26/04
Time Collected: 11:12
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 16:41
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**4.08**	7.00	**2.93**	5.00	**J**
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**18.2**	7.80	**5.86**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H = Sample analyzed outside of holding time.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: KLH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 11:53
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 11:19
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**10.2**	7.00	**7.30**	5.00	
463-58-1	Carbonyl Sulfide	**12.5**	12.0	**5.07**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**15.1**	7.80	**4.85**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1SR**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-003

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 11:59
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 11:42
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**11.4**	7.00	**8.21**	5.00	
463-58-1	Carbonyl Sulfide	**16.0**	12.0	**6.51**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**17.9**	7.80	**5.75**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: [illegible] Date: [illegible]

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC2S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-004

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 12:22
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 12:05
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**4.70**	7.00	**3.37**	5.00	**J**
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**21.5**	7.80	**6.90**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: KAH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFUS**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-005

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 13:31
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 12:28
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**50.8**	7.00	**36.4**	5.00	
463-58-1	Carbonyl Sulfide	**23.0**	12.0	**9.36**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**17.9**	7.80	**5.75**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC1S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-006

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 14:25
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 13:35
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**40.2**	7.00	**28.9**	5.00	
463-58-1	Carbonyl Sulfide	**31.0**	12.0	**12.6**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**20.8**	7.80	**6.67**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC2S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-007

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 14:20
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 13:12
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**4.82**	7.00	**3.46**	5.00	J
463-58-1	Carbonyl Sulfide	**13.9**	12.0	**5.66**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**21.0**	7.80	**6.75**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: [illegible] Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFUS**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-008

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 15:32
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 13:57
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**29.2**	7.00	**21.0**	5.00	
463-58-1	Carbonyl Sulfide	**34.8**	12.0	**14.2**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**30.3**	7.80	**9.72**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	**16.7**	17.0	**4.86**	5.00	J
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	**34.7**	20.0	**8.65**	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: LMH Date: 6/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC1S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-009

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 16:20
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 14:19
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**22.5**	7.00	**16.2**	5.00	
463-58-1	Carbonyl Sulfide	**16.3**	12.0	**6.65**	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**17.8**	7.80	**5.72**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC2S**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P2401123-010

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/26/04
Time Collected: 16:18
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 16:18
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**10.5**	7.80	**3.36**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **SB0202 / 31**

CAS Project ID: P2401123
CAS Sample ID: P040527-MB

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 5/27/04
Time Analyzed: 10:56
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	ND	7.80	ND	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/11/04

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401123

Project: SB0202 / 31

Sample(s) received on: 5/27/04 Date opened: 5/27/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☐	☒	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401123-001			NA	
P2401123-002			NA	
P2401123-003			NA	
P2401123-004			NA	
P2401123-005			NA	
P2401123-006			NA	
P2401123-007			NA	
P2401123-008			NA	
P2401123-009			NA	
P2401123-010			NA	

Explain any discrepancies: (include lab sample ID numbers):

P2401123-008: SAMPLE ID ON THE BAG: PNL-L2A-SFU

5/27/04 12:31 PM

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

Client/Address: GeoSyntec Consultants, 2100 Main St., Suite 150, Huntington Beach, CA 92648

Project Name: Ascon LF

Project Number: SB0202131

Sampling Location: Huntington Beach

P.O. #/Billing Information: GeoSyntec SB0202131

Phone: (714)969-0800 Fax: (714)969-0820

Email: mreardon@geosyntec.com

Contact: Mike Reardon

Sampler (Signature): Hoby Rash

CAS Project No.: P2401123

Analysis: Sulfur Species

Cooler / Blank: Temp_____

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	Flow Controller (Serial #)	Sample Volume (Liters)	Sulfur Species				Expected Turnaround Time 24 Hr 48Hr 3Day 4Day 5Day Standard (10 Business Days)	Comments (e.g., preservative or specific instructions)
VL-L2B-SFUS		1112		tedlar	N/A	N/A	1	X				10	
VL-L2B-SFC1S		1153		tedlar			1	X				10	
VL-L2B-SFC1SR		1159		tedlar			1	X				10	
VL-L2B-SFC2S		1222		tedlar			1	X				10	
VL-L1B-SFUS		1331		tedlar			1	X				10	
VL-L1B-SFC1S		1425		tedlar			1	X				10	
VL-L1B-SFC2S		1420		tedlar			1	X				10	
VL-L2A-SFUS		1532		tedlar			1	X				10	
VL-L2A-SFC1S		1620		tedlar			1	X				10	
VL-L2A-SFC2S		1618		tedlar			1	X				10	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Ann Page	5/26/04	1655	Sharon Malone	5/27/04	1000
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Additional Comments

White Copy: Accompanies Samples — Yellow Copy: Retained by Client — COC #13.7/03

MAY-27-2004 11:51 AM CAS 805 526 7270 TOTAL P.02

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	06/15/04
Address:	2100 Main Street, Suite 150	Date Received:	05/27/04
	Huntington Beach, CA 92648	CAS Project No:	P2401130
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202131

Client Project ID: Ascon/SB0202 / 31

Three (3) Tedlar Bag Samples labeled:

"PNL-L1A-SFUS" "PNL-L1A-SFC1S" "PNL-L1A-SFC2S"

The samples were received at the laboratory under chain of custody on May 27, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per modified methods SCAQMD Method 307-91 and ASTM D 5504-01 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Reviewed and Approved:

Zheng Wang
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFUS**
Client Project ID: **Ascon/SB0202 / 31**

CAS Project ID: P2401130
CAS Sample ID: P2401130-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/27/04
Time Collected: 07:52
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 17:04
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**4.77**	7.00	**3.42**	5.00	**J**
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**10.6**	7.80	**3.42**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit;
the associated numerical value is considered estimated.

Verified By: RC Date: 6/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC1S**
Client Project ID: **Ascon/SB0202 / 31**

CAS Project ID: P2401130
CAS Sample ID: P2401130-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/27/04
Time Collected: 09:00
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 17:26
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**9.39**	7.00	**6.74**	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**8.00**	7.80	**2.57**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 6/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC2S**
Client Project ID: **Ascon/SB0202 / 31**

CAS Project ID: P2401130
CAS Sample ID: P2401130-003

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 5/27/04
Time Collected: 08:40
Date Received: 5/27/04
Date Analyzed: 5/27/04
Time Analyzed: 17:49
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	**17.1**	7.80	**5.49**	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.C. Date: 6/11/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon/SB0202 / 31**

CAS Project ID: P2401130
CAS Sample ID: P040527-MB

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang/Wade Henton
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 5/27/04
Time Analyzed: 10:56
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.00	ND	5.00	
463-58-1	Carbonyl Sulfide	ND	12.0	ND	5.00	
74-93-1	Methyl Mercaptan	ND	9.80	ND	5.00	
75-08-1	Ethyl Mercaptan	ND	13.0	ND	5.00	
75-18-3	Dimethyl Sulfide	ND	13.0	ND	5.00	
75-15-0	Carbon Disulfide	ND	7.80	ND	2.50	
75-33-2	Isopropyl Mercaptan	ND	16.0	ND	5.00	
75-66-1	tert-Butyl Mercaptan	ND	18.0	ND	5.00	
107-03-9	n-Propyl Mercaptan	ND	16.0	ND	5.00	
624-89-5	Ethyl Methyl Sulfide	ND	16.0	ND	5.00	
110-02-1	Thiophene	ND	17.0	ND	5.00	
513-44-0	Isobutyl Mercaptan	ND	18.0	ND	5.00	
352-93-2	Diethyl Sulfide	ND	18.0	ND	5.00	
109-79-5	n-Butyl Mercaptan	ND	18.0	ND	5.00	
624-92-0	Dimethyl Disulfide	ND	9.60	ND	2.50	
616-44-4	3-Methylthiophene	ND	20.0	ND	5.00	
110-01-0	Tetrahydrothiophene	ND	18.0	ND	5.00	
638-02-8	2,5-Dimethylthiophene	ND	23.0	ND	5.00	
872-55-9	2-Ethylthiophene	ND	23.0	ND	5.00	
110-81-6	Diethyl Disulfide	ND	12.0	ND	2.50	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 6/11/04

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401130

Project: Ascon/SB0202 / 31

Sample(s) received on: 5/27/04 Date opened: 5/27/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☐	☐	☒
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?			
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401130-001			NA	
P2401130-002			NA	
P2401130-003			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

6

6/11/04 1:54 PM

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

Client/Address: GeoSyntec, 200 Main St. #150, HB, CA 92648

Phone: (714) 969-0800 Fax: (714) 969-0820

Email: mreardon@geosyntec.com

Contact: Mike Reardon

Sampler (Signature): [signature]

Project Name: ASCON

Project Number: SB0202131

Sampling Location: HB, CA

P.O. #/Billing Information: SB0202131 geosyntec

CAS Project No.: P2401130

Cooler / Blank: Temp_____

Analysis: SULFUR SPECIES

Expected Turnaround Time: 24 Hr 48Hr 3Day 4Day 5Day Standard (10 Business Days)

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	~~Container ID~~ (Serial #)	Flow Controller (Serial #)	Sample Volume (Liters)	SULFUR SPECIES					Comments (e.g., preservative or specific instructions)
PNL-L1A-SFC3	05-27-04	7:52		A.R	BAG		1	X					
PNL-L1A-SFC15	"	9:00		"	"		1	X					
PNL-L1A-SFC25	"	0840		"	"		1	X					

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	05-27-04	09:50	[signature]	5/27/04	0930
[signature]	5/27/04	1145	[signature]	5/27/04	1145
[signature]	5/27/04	1500	Sharon Malone	5/27/04	1500

Additional Comments

White Copy: Accompanies Samples — Yellow Copy: Retained by Client

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	06/25/04
Address:	2100 Main Street, Suite 150	Date Received:	05/27/04
	Huntington Beach, CA 92648	CAS Project No:	P2401135
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202 / 31

Client Project ID: Ascon LF/SB0202 / 31

Nineteen (19) Stainless Steel Summa Canisters labeled:

"PNL-L3B-SFC1"	"PNL-L3B-SFC2"	"PNL-L3A-SFU"	"PNL-L3A-SFC1"
"PNL-L3A-SFC2"	"PNL-L2B-SFU"	"PNL-L2B-SFC1"	"PNL-L2B-SFC2"
"PNL-L1B-SFU"	"PNL-L1B-SFUR"	"PNL-L1B-SFC1"	"PNL-L1B-SFC2"
"PNL-L2A-SFU"	"PNL-L2A-SFC1"	"PNL-L2A-SFC2"	"PNL-L1A-SFU
"PNL-L1A-SFC1"	"PNL-L1A-SFC2"	"PNL-L1A-SF300"	

The samples were received at the laboratory under chain of custody on May 27, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

C1 through C6 Hydrocarbon Analysis

The samples were analyzed per modified EPA Method TO-3 for C_1 through $>C_6$ hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID).

Reviewed and Approved:

Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

NELAP Accredited AGI Seal of Excellence Award

2665 Park Center Drive, Suite D Simi Valley, California 93065 (805) 526-7161 ph (805) 526-7270 fax

Columbia Analytical Services INC
An Employee - Owned Company

CAS Project No: P2401135

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds and tentatively identified compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical systems used were comprised of a Hewlett Packard Model 5973 GC/MS/DS and an Agilent Model 5973inert GC/MS/DS each interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The laboratory control sample was biased high on June 9, 2004 and June 11, 2004 for methyl tert-butyl ether and 1,1,1-trichloroethane on June 9, 2004.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

NELAP Accredited AGIL Seal of Excellence Award

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-001

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00132

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**31**	0.60	
C_2 as Ethane	ND	0.60	
C_3 as Propane	ND	0.60	
C_4 as n-Butane	ND	0.60	
C_5 as n-Pentane	ND	0.60	
C_6 as n-Hexane	ND	0.60	
C_6+ as n-Hexane	**24**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-002

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00068

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-003

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00104

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**34**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**9.4**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-004

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00561

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**42**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**22**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-005

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00491

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**29**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**4.0**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: FLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-006

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**46**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	**0.70**	0.61	
C_6+ as n-Hexane	**34**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-007

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00549

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**34**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**33**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-008

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00161

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-009

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00590

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**38**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**31**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFUR**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-010

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00232

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**30**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**28**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-011

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00386

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**26**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	ND	0.62	
C_6 as n-Hexane	ND	0.62	
C_6+ as n-Hexane	**31**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-012

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00482

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	ND	0.62	
C_6 as n-Hexane	ND	0.62	
C_6+ as n-Hexane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-013

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00140

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**52**	0.62	
C_2 as Ethane	ND	0.62	
C_3 as Propane	ND	0.62	
C_4 as n-Butane	ND	0.62	
C_5 as n-Pentane	**2.2**	0.62	
C_6 as n-Hexane	**5.8**	0.62	
C_6+ as n-Hexane	**210**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-014

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00225

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**8.9**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**49**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-015

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00037

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.1 Pf 1 = 3.5

D.F. = 1.23

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**0.98**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**1.7**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-016

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00292

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**30**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**27**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-016DUP

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00292

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**30**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**28**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-017

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00176

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**23**	0.61	
C_2 as Ethane	ND	0.61	
C_3 as Propane	ND	0.61	
C_4 as n-Butane	ND	0.61	
C_5 as n-Pentane	ND	0.61	
C_6 as n-Hexane	ND	0.61	
C_6+ as n-Hexane	**15**	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 6/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-018

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00554

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	**4.6**	0.60	
C_2 as Ethane	ND	0.60	
C_3 as Propane	ND	0.60	
C_4 as n-Butane	ND	0.60	
C_5 as n-Pentane	ND	0.60	
C_6 as n-Hexane	ND	0.60	
C_6+ as n-Hexane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SF300**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P2401135-019

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00296

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/3/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 1.7 Pf 1 = 3.8

D.F. = 1.13

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.56	
C_2 as Ethane	ND	0.56	
C_3 as Propane	ND	0.56	
C_4 as n-Butane	ND	0.56	
C_5 as n-Pentane	ND	0.56	
C_6 as n-Hexane	ND	0.56	
C_6+ as n-Hexane	ND	1.1	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID : P2401135
CAS Sample ID : P040603-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton/Regan Lau
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/03/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	**Result** ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C_2 as Ethane	ND	0.50	
C_3 as Propane	ND	0.50	
C_4 as n-Butane	ND	0.50	
C_5 as n-Pentane	ND	0.50	
C_6 as n-Hexane	ND	0.50	
C_6+ as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00132

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.0	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.0	ND	2.3	
106-99-0	1,3-Butadiene	ND	6.0	ND	2.7	
74-83-9	Bromomethane	ND	6.0	ND	1.5	
75-00-3	Chloroethane	ND	6.0	ND	2.3	
67-64-1	Acetone	**68**	60	**29**	25	
75-69-4	Trichlorofluoromethane	ND	6.0	ND	1.1	
107-13-1	Acrylonitrile	ND	6.0	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.0	ND	1.5	
75-09-2	Methylene chloride	ND	6.0	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.0	ND	0.78	
75-15-0	Carbon Disulfide	**18**	6.0	**5.8**	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.0	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.0	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.0	ND	1.7	**L**
108-05-4	Vinyl Acetate	ND	6.0	ND	1.7	
78-93-3	2-Butanone (MEK)	**23**	6.0	**7.9**	2.0	
156-59-2	cis-1,2-Dichloroethene	ND	6.0	ND	1.5	
67-66-3	Chloroform	ND	6.0	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.0	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.0	ND	1.1	
71-43-2	Benzene	**170**	6.0	**54**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.0	ND	0.95	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00132

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.0	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.0	ND	0.90	
79-01-6	Trichloroethene	ND	6.0	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.0	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.0	ND	1.1	
108-88-3	Toluene	**200**	6.0	**52**	1.6	
591-78-6	2-Hexanone	ND	6.0	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.0	ND	0.70	
106-93-4	1,2-Dibromoethane	ND	6.0	ND	0.78	
127-18-4	Tetrachloroethene	ND	6.0	ND	0.89	
108-90-7	Chlorobenzene	ND	6.0	ND	1.3	
100-41-4	Ethylbenzene	**660**	6.0	**150**	1.4	
136777-61-2	*m,p*-Xylenes	**550**	12	**130**	2.8	
75-25-2	Bromoform	ND	6.0	ND	0.58	
100-42-5	Styrene	**8.6**	6.0	**2.0**	1.4	
95-47-6	o-Xylene	**340**	6.0	**78**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	ND	0.87	
541-73-1	1,3-Dichlorobenzene	ND	6.0	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.0	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	6.0	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-001

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00132

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.5 Pf 1 = 3.5

D.F. = 1.20

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.31	Methylcyclopentane	**2,000**	
13.48	Dimethylcyclopentane Isomer	**1,000**	
13.59	Dimethylcyclopentane Isomer	**1,000**	
13.71	Dimethylcyclopentane Isomer	**2,000**	
15.09	Methylcyclohexane	**2,000**	
16.12	Trimethylcyclopentane Isomer	**2,000**	
17.37	Dimethylcyclohexane Isomer	**1,000**	
19.71	Trimethylcyclohexane Isomer	**3,000**	
22.39	C_9H_{16} Compound	**1,000**	
23.52	$C_{10}H_{20}$ Compound	**1,000**	
24.06	1,2,4-Trimethylbenzene	**1,000**	
24.80	1,2,3-Trimethylbenzene	**2,000**	
27.37	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**1,000**	
27.93	Naphthalene	**600**	
28.98	$C_{14}H_{30}$ Branched Alkane + Unidentified Compound	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00068

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.61	ND	0.29	
75-01-4	Vinyl Chloride	ND	0.61	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.61	ND	0.27	
74-83-9	Bromomethane	ND	0.61	ND	0.16	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
67-64-1	Acetone	**11**	6.1	**4.5**	2.5	
75-69-4	Trichlorofluoromethane	ND	0.61	ND	0.11	
107-13-1	Acrylonitrile	ND	0.61	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-09-2	Methylene chloride	ND	0.61	ND	0.17	
76-13-1	Trichlorotrifluoroethane	ND	0.61	ND	0.079	
75-15-0	Carbon Disulfide	**9.6**	0.61	**3.1**	0.19	
156-60-5	trans-1,2-Dichloroethene	**1.2**	0.61	**0.29**	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.61	ND	0.17	**L**
108-05-4	Vinyl Acetate	ND	0.61	ND	0.17	
78-93-3	2-Butanone (MEK)	**0.74**	0.61	**0.25**	0.21	
156-59-2	cis-1,2-Dichloroethene	**1.0**	0.61	**0.26**	0.15	
67-66-3	Chloroform	**2.1**	0.61	**0.43**	0.12	
107-06-2	1,2-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	**L**
71-43-2	Benzene	**38**	0.61	**12**	0.19	
56-23-5	Carbon Tetrachloride	ND	0.61	ND	0.096	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00068

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.61	ND	0.13	
75-27-4	Bromodichloromethane	ND	0.61	ND	0.090	
79-01-6	Trichloroethene	ND	0.61	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.61	ND	0.13	
108-10-1	4-Methyl-2-pentanone	ND	0.61	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.61	ND	0.13	
79-00-5	1,1,2-Trichloroethane	ND	0.61	ND	0.11	
108-88-3	Toluene	**52**	0.61	**14**	0.16	
591-78-6	2-Hexanone	**0.74**	0.61	**0.18**	0.15	
124-48-1	Dibromochloromethane	**0.61**	0.61	**0.071**	0.071	
106-93-4	1,2-Dibromoethane	ND	0.61	ND	0.079	
127-18-4	Tetrachloroethene	ND	0.61	ND	0.089	
108-90-7	Chlorobenzene	ND	0.61	ND	0.13	
100-41-4	Ethylbenzene	**100**	0.61	**24**	0.14	
136777-61-2	*m,p* -Xylenes	**88**	1.2	**20**	0.28	
75-25-2	Bromoform	ND	0.61	ND	0.059	
100-42-5	Styrene	**2.5**	0.61	**0.58**	0.14	
95-47-6	o-Xylene	**45**	0.61	**10**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.61	ND	0.088	
541-73-1	1,3-Dichlorobenzene	ND	0.61	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.61	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.61	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-002

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00068

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
7.05	Isopropyl Alcohol	**100**	
22.99	Propylbenzene	**60**	
23.17	3-Ethyltoluene	**30**	
23.23	4-Ethyltoluene	**30**	
24.05	1,2,4-Trimethylbenzene	**80**	
24.58	2-Ethyl-1-hexanol	**30**	
24.79	1,2,3-Trimethylbenzene	**100**	
25.13	C_9H_{10} Compound	**50**	
26.10	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**40**	
26.21	$C_{10}H_{12}$ Compound	**40**	
27.37	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**70**	
27.92	Naphthalene	**60**	
29.51	Methylnaphthalene Isomer	**30**	
30.41	$C_{14}H_{28}$ Compound	**80**	
30.54	$C_{14}H_{28}$ Compound	**60**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00104

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	3.0	ND	1.5	
75-01-4	Vinyl Chloride	ND	3.0	ND	1.2	
106-99-0	1,3-Butadiene	ND	3.0	ND	1.4	
74-83-9	Bromomethane	ND	3.0	ND	0.78	
75-00-3	Chloroethane	ND	3.0	ND	1.1	
67-64-1	Acetone	**120**	30	**52**	13	
75-69-4	Trichlorofluoromethane	ND	3.0	ND	0.54	
107-13-1	Acrylonitrile	ND	3.0	ND	1.4	
75-35-4	1,1-Dichloroethene	ND	3.0	ND	0.76	
75-09-2	Methylene chloride	ND	3.0	ND	0.87	
76-13-1	Trichlorotrifluoroethane	ND	3.0	ND	0.39	
75-15-0	Carbon Disulfide	**29**	3.0	**9.4**	0.97	
156-60-5	trans-1,2-Dichloroethene	**8.2**	3.0	**2.1**	0.76	
75-34-3	1,1-Dichloroethane	ND	3.0	ND	0.75	
1634-04-4	Methyl tert-Butyl Ether	ND	3.0	ND	0.84	**L**
108-05-4	Vinyl Acetate	ND	3.0	ND	0.86	
78-93-3	2-Butanone (MEK)	**29**	3.0	**9.9**	1.0	
156-59-2	cis-1,2-Dichloroethene	ND	3.0	ND	0.76	
67-66-3	Chloroform	ND	3.0	ND	0.62	
107-06-2	1,2-Dichloroethane	ND	3.0	ND	0.75	
71-55-6	1,1,1-Trichloroethane	ND	3.0	ND	0.55	
71-43-2	Benzene	**200**	3.0	**64**	0.95	
56-23-5	Carbon Tetrachloride	ND	3.0	ND	0.48	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00104

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	3.0	ND	0.65	
75-27-4	Bromodichloromethane	ND	3.0	ND	0.45	
79-01-6	Trichloroethene	ND	3.0	ND	0.56	
10061-01-5	cis-1,3-Dichloropropene	ND	3.0	ND	0.67	
108-10-1	4-Methyl-2-pentanone	**5.5**	3.0	**1.3**	0.74	
10061-02-6	trans-1,3-Dichloropropene	ND	3.0	ND	0.67	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ND	0.55	
108-88-3	Toluene	**29**	3.0	**7.7**	0.80	
591-78-6	2-Hexanone	ND	3.0	ND	0.74	
124-48-1	Dibromochloromethane	ND	3.0	ND	0.36	
106-93-4	1,2-Dibromoethane	ND	3.0	ND	0.39	
127-18-4	Tetrachloroethene	ND	3.0	ND	0.45	
108-90-7	Chlorobenzene	ND	3.0	ND	0.66	
100-41-4	Ethylbenzene	**260**	3.0	**60**	0.70	
136777-61-2	*m,p* -Xylenes	**78**	6.1	**18**	1.4	
75-25-2	Bromoform	ND	3.0	ND	0.29	
100-42-5	Styrene	ND	3.0	ND	0.71	
95-47-6	o-Xylene	**54**	3.0	**12**	0.70	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.0	ND	0.44	
541-73-1	1,3-Dichlorobenzene	ND	3.0	ND	0.50	
106-46-7	1,4-Dichlorobenzene	ND	3.0	ND	0.50	
95-50-1	1,2-Dichlorobenzene	ND	3.0	ND	0.50	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: CMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-003

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00104

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.31	Methylcyclopentane	**1,000**	
12.61	Cyclohexane	**500**	
13.48	Dimethylcyclopentane Isomer	**700**	
13.60	Dimethylcyclopentane Isomer	**700**	
13.70	Dimethylcyclopentane Isomer	**1,000**	
15.10	Methylcyclohexane	**1,000**	
15.81	Trimethylcyclopentane Isomer	**800**	
16.12	Trimethylcyclopentane Isomer	**900**	
17.37	Dimethylcyclohexane Isomer	**800**	
19.71	Trimethylcyclohexane Isomer	**2,000**	
20.08	Dimethylcyclopentane Isomer	**600**	
20.24	Trimethylcyclopentane Isomer	**700**	
22.40	C_9H_{16} Compound	**1,000**	
23.51	$C_{10}H_{20}$ Compound	**800**	
24.79	1,2,3-Trimethylbenzene	**600**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: BLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00561

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	3.1	ND	1.5	
75-01-4	Vinyl Chloride	ND	3.1	ND	1.2	
106-99-0	1,3-Butadiene	ND	3.1	ND	1.4	
74-83-9	Bromomethane	ND	3.1	ND	0.79	
75-00-3	Chloroethane	ND	3.1	ND	1.2	
67-64-1	Acetone	**210**	31	**87**	13	
75-69-4	Trichlorofluoromethane	ND	3.1	ND	0.54	
107-13-1	Acrylonitrile	ND	3.1	ND	1.4	
75-35-4	1,1-Dichloroethene	ND	3.1	ND	0.77	
75-09-2	Methylene chloride	ND	3.1	ND	0.88	
76-13-1	Trichlorotrifluoroethane	ND	3.1	ND	0.40	
75-15-0	Carbon Disulfide	**7.1**	3.1	**2.3**	0.98	
156-60-5	trans-1,2-Dichloroethene	**8.6**	3.1	**2.2**	0.77	
75-34-3	1,1-Dichloroethane	ND	3.1	ND	0.75	
1634-04-4	Methyl tert-Butyl Ether	ND	3.1	ND	0.85	L
108-05-4	Vinyl Acetate	ND	3.1	ND	0.87	
78-93-3	2-Butanone (MEK)	**52**	3.1	**18**	1.0	
156-59-2	cis-1,2-Dichloroethene	ND	3.1	ND	0.77	
67-66-3	Chloroform	ND	3.1	ND	0.62	
107-06-2	1,2-Dichloroethane	ND	3.1	ND	0.75	
71-55-6	1,1,1-Trichloroethane	ND	3.1	ND	0.56	
71-43-2	Benzene	**200**	3.1	**63**	0.96	
56-23-5	Carbon Tetrachloride	ND	3.1	ND	0.49	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00561

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	3.1	ND	0.66	
75-27-4	Bromodichloromethane	ND	3.1	ND	0.46	
79-01-6	Trichloroethene	ND	3.1	ND	0.57	
10061-01-5	cis-1,3-Dichloropropene	ND	3.1	ND	0.67	
108-10-1	4-Methyl-2-pentanone	**12**	3.1	**3.0**	0.74	
10061-02-6	trans-1,3-Dichloropropene	ND	3.1	ND	0.67	
79-00-5	1,1,2-Trichloroethane	ND	3.1	ND	0.56	
108-88-3	Toluene	**26**	3.1	**6.9**	0.81	
591-78-6	2-Hexanone	ND	3.1	ND	0.74	
124-48-1	Dibromochloromethane	ND	3.1	ND	0.36	
106-93-4	1,2-Dibromoethane	ND	3.1	ND	0.40	
127-18-4	Tetrachloroethene	ND	3.1	ND	0.45	
108-90-7	Chlorobenzene	ND	3.1	ND	0.66	
100-41-4	Ethylbenzene	**260**	3.1	**61**	0.70	
136777-61-2	*m,p*-Xylenes	**72**	6.1	**17**	1.4	
75-25-2	Bromoform	ND	3.1	ND	0.30	
100-42-5	Styrene	ND	3.1	ND	0.72	
95-47-6	o-Xylene	**61**	3.1	**14**	0.70	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.1	ND	0.44	
541-73-1	1,3-Dichlorobenzene	ND	3.1	ND	0.51	
106-46-7	1,4-Dichlorobenzene	ND	3.1	ND	0.51	
95-50-1	1,2-Dichlorobenzene	**3.2**	3.1	**0.54**	0.51	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-004

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00561

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.31	Methylcyclopentane	**900**	
13.70	Dimethylcyclopentane Isomer	**900**	
15.09	Methylcyclohexane	**1,000**	
15.82	Trimethylcyclopentane Isomer	**900**	
16.11	Trimethylcyclopentane Isomer	**800**	
19.70	Trimethylcyclohexane Isomer	**2,000**	
22.40	C_9H_{16} Compound	**1,000**	
23.52	$C_{10}H_{20}$ Compound	**1,000**	
24.80	1,2,3-Trimethylbenzene	**1,000**	
27.38	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**1,000**	
27.93	Naphthalene	**800**	
28.18	$C_{13}H_{28}$ Branched Alkane	**800**	
28.99	$C_{14}H_{30}$ Branched Alkane + Unidentified Compound	**2,000**	
29.52	Methylnaphthalene Isomer	**1,000**	
30.31	$C_{15}H_{32}$ Branched Alkane + $C_{13}H_{18}$ Compound	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00491

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.50 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5 D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.2	ND	0.59	
75-01-4	Vinyl Chloride	ND	1.2	ND	0.47	
106-99-0	1,3-Butadiene	ND	1.2	ND	0.55	
74-83-9	Bromomethane	ND	1.2	ND	0.31	
75-00-3	Chloroethane	ND	1.2	ND	0.46	
67-64-1	Acetone	**17**	12	**7.3**	5.1	
75-69-4	Trichlorofluoromethane	ND	1.2	ND	0.22	
107-13-1	Acrylonitrile	ND	1.2	ND	0.56	
75-35-4	1,1-Dichloroethene	ND	1.2	ND	0.31	
75-09-2	Methylene chloride	ND	1.2	ND	0.35	
76-13-1	Trichlorotrifluoroethane	ND	1.2	ND	0.16	
75-15-0	Carbon Disulfide	**22**	1.2	**7.2**	0.39	
156-60-5	trans-1,2-Dichloroethene	**1.9**	1.2	**0.48**	0.31	
75-34-3	1,1-Dichloroethane	ND	1.2	ND	0.30	
1634-04-4	Methyl tert-Butyl Ether	ND	1.2	ND	0.34	L
108-05-4	Vinyl Acetate	ND	1.2	ND	0.34	
78-93-3	2-Butanone (MEK)	**2.0**	1.2	**0.67**	0.41	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	ND	0.31	
67-66-3	Chloroform	**1.3**	1.2	**0.27**	0.25	
107-06-2	1,2-Dichloroethane	ND	1.2	ND	0.30	
71-55-6	1,1,1-Trichloroethane	ND	1.2	ND	0.22	
71-43-2	Benzene	**38**	1.2	**12**	0.38	
56-23-5	Carbon Tetrachloride	ND	1.2	ND	0.19	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00491

Date Collected: 5/25/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.50 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	1.2	ND	0.26	
75-27-4	Bromodichloromethane	ND	1.2	ND	0.18	
79-01-6	Trichloroethene	ND	1.2	ND	0.23	
10061-01-5	cis-1,3-Dichloropropene	ND	1.2	ND	0.27	
108-10-1	4-Methyl-2-pentanone	ND	1.2	ND	0.30	
10061-02-6	trans-1,3-Dichloropropene	ND	1.2	ND	0.27	
79-00-5	1,1,2-Trichloroethane	ND	1.2	ND	0.22	
108-88-3	Toluene	**6.0**	1.2	**1.6**	0.32	
591-78-6	2-Hexanone	ND	1.2	ND	0.30	
124-48-1	Dibromochloromethane	ND	1.2	ND	0.14	
106-93-4	1,2-Dibromoethane	ND	1.2	ND	0.16	
127-18-4	Tetrachloroethene	ND	1.2	ND	0.18	
108-90-7	Chlorobenzene	ND	1.2	ND	0.26	
100-41-4	Ethylbenzene	**46**	1.2	**11**	0.28	
136777-61-2	*m,p* -Xylenes	**14**	2.4	**3.2**	0.56	
75-25-2	Bromoform	ND	1.2	ND	0.12	
100-42-5	Styrene	ND	1.2	ND	0.28	
95-47-6	o-Xylene	**7.8**	1.2	**1.8**	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.2	ND	0.18	
541-73-1	1,3-Dichlorobenzene	ND	1.2	ND	0.20	
106-46-7	1,4-Dichlorobenzene	ND	1.2	ND	0.20	
95-50-1	1,2-Dichlorobenzene	ND	1.2	ND	0.20	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L3A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-005

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00491

Date Collected: 5/25/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.50 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.31	Methylcyclopentane	200	
13.48	Dimethylcyclopentane Isomer	100	
13.59	Dimethylcyclopentane Isomer	100	
13.70	Dimethylcyclopentane Isomer	200	
15.10	Methylcyclohexane	200	
15.81	Trimethylcyclopentane Isomer	100	
16.11	Trimethylcyclopentane Isomer	200	
17.36	Dimethylcyclohexane Isomer	100	
18.29	C_9H_{18} Compound	80	
19.70	Trimethylcyclohexane Isomer	200	
20.06	Dimethylcyclopentane Isomer	80	
20.22	Trimethylcyclohexane Isomer	100	
22.40	C_9H_{16} Compound	80	
23.51	$C_{10}H_{20}$ Compound	70	
27.93	Naphthalene	70	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KJH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.8	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**140**	61	**61**	26	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.80	
75-15-0	Carbon Disulfide	**12**	6.1	**4.0**	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**27**	6.1	**9.0**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**410**	6.1	**130**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.97	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.91	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	**7.1**	6.1	**1.7**	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**240**	6.1	**64**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.72	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.90	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**530**	6.1	**120**	1.4	
136777-61-2	*m,p*-Xylenes	**450**	12	**100**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**200**	6.1	**46**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.89	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**6.1**	6.1	**1.0**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5
D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
10.37	Methylcyclopentane	**1,000**	
13.04	Dimethylcyclopentane Isomer	**1,000**	
14.40	Methylcyclohexane	**1,000**	
15.44	Trimethylcyclopentane Isomer	**1,000**	
16.68	Dimethylcyclohexane Isomer	**1,000**	
19.08	Trimethylcyclohexane Isomer	**1,000**	
21.79	C_9H_{16} Compound	**1,000**	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	**1,000**	
22.94	$C_{10}H_{20}$ Compound	**1,000**	
23.48	1,2,4-Trimethylbenzene	**700**	
24.22	1,2,3-Trimethylbenzene + Unidentified Compound	**1,000**	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**800**	
27.41	Naphthalene	**400**	
27.60	$C_{11}H_{14}$ Compound + Decahydronaphthalene Isomer	**700**	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	**700**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: LLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.8	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**140**	61	**58**	26	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.80	
75-15-0	Carbon Disulfide	**13**	6.1	**4.1**	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**27**	6.1	**9.0**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**420**	6.1	**130**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.97	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.91	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	**7.1**	6.1	**1.7**	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**240**	6.1	**65**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.72	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.90	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**520**	6.1	**120**	1.4	
136777-61-2	*m,p*-Xylenes	**450**	12	**100**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**200**	6.1	**46**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.89	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**6.1**	6.1	**1.0**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-006DUP

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: SC00413

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5
D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
10.66	Methylcyclopentane	900	
13.04	Dimethylcyclopentane Isomer	1,000	
14.40	Methylcyclohexane	1,000	
15.44	Trimethylcyclopentane Isomer	1,000	
16.68	Dimethylcyclohexane Isomer	1,000	
19.08	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	1,000	
22.94	$C_{10}H_{20}$ Compound	1,000	
23.48	1,2,4-Trimethylbenzene	600	
24.21	1,2,3-Trimethylbenzene + Unidentified Compound	900	
26.87	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	800	
27.41	Naphthalene	400	
27.60	$C_{11}H_{14}$ Compound + Decahydronaphthalene Isomer	700	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00549

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.7	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**120**	61	**51**	25	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.79	
75-15-0	Carbon Disulfide	ND	6.1	ND	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**30**	6.1	**10**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**290**	6.1	**91**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.96	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00549

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.90	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**70**	6.1	**19**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.71	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.89	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**520**	6.1	**120**	1.4	
136777-61-2	*m,p*-Xylenes	**150**	12	**36**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**65**	6.1	**15**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.88	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	6.1	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC1** CAS Project ID: P2401135
Client Project ID: **Ascon LF/SB0202 / 31** CAS Sample ID: P2401135-007

Tentatively Identified Compounds

Test Code: EPA TO-15 Date Collected: 5/26/04
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: 5/27/04
Analyst: Michelle Sakamoto Date Analyzed: 6/11/04
Sampling Media: Summa Canister Volume(s) Analyzed: 0.10 Liter(s)
Test Notes: **T**
Container ID: SC00549

Pi 1 = 0.3 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.03	Dimethylcyclopentane Isomer	**600**	
14.40	Methylcyclohexane	**700**	
19.07	Trimethylcyclohexane Isomer	**900**	
21.78	C_9H_{16} Compound	**600**	
23.48	1,2,4-Trimethylbenzene	**500**	
25.67	$C_{10}H_{12}$ Compound	**500**	
26.71	Decahydronaphthalene Isomer	**500**	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**700**	
27.41	Naphthalene	**500**	
27.60	$C_{11}H_{14}$ Compound + Decahydronaphthalene Isomer	**600**	
27.76	$C_{13}H_{28}$ Branched Alkane	**500**	
28.19	$C_{13}H_{26}$ Compound	**500**	
28.24	$C_{12}H_{16}$ Compound + $C_{10}H_{20}$ Compound	**500**	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	**600**	
28.97	Methylnaphthalene Isomer + $C_{14}H_{28}$ Compound	**600**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00161

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.61	ND	0.30	
75-01-4	Vinyl Chloride	ND	0.61	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.61	ND	0.28	
74-83-9	Bromomethane	ND	0.61	ND	0.16	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
67-64-1	Acetone	**22**	6.1	**9.4**	2.6	
75-69-4	Trichlorofluoromethane	ND	0.61	ND	0.11	
107-13-1	Acrylonitrile	ND	0.61	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-09-2	Methylene chloride	ND	0.61	ND	0.18	
76-13-1	Trichlorotrifluoroethane	ND	0.61	ND	0.080	
75-15-0	Carbon Disulfide	**8.0**	0.61	**2.6**	0.20	
156-60-5	trans-1,2-Dichloroethene	**0.72**	0.61	**0.18**	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.61	ND	0.17	**L**
108-05-4	Vinyl Acetate	**4.4**	0.61	**1.2**	0.17	**M**
78-93-3	2-Butanone (MEK)	**2.2**	0.61	**0.73**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.61	ND	0.15	
67-66-3	Chloroform	**23**	0.61	**4.7**	0.12	
107-06-2	1,2-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	**L**
71-43-2	Benzene	**52**	0.61	**16**	0.19	
56-23-5	Carbon Tetrachloride	ND	0.61	ND	0.097	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.
L = Laboratory control sample recovery not within specified limits.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00161

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.61	ND	0.13	
75-27-4	Bromodichloromethane	**4.0**	0.61	**0.60**	0.091	
79-01-6	Trichloroethene	ND	0.61	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.61	ND	0.13	
108-10-1	4-Methyl-2-pentanone	ND	0.61	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.61	ND	0.13	
79-00-5	1,1,2-Trichloroethane	ND	0.61	ND	0.11	
108-88-3	Toluene	**33**	0.61	**8.7**	0.16	
591-78-6	2-Hexanone	**1.4**	0.61	**0.34**	0.15	
124-48-1	Dibromochloromethane	**2.7**	0.61	**0.32**	0.072	
106-93-4	1,2-Dibromoethane	ND	0.61	ND	0.079	
127-18-4	Tetrachloroethene	ND	0.61	ND	0.090	
108-90-7	Chlorobenzene	**0.74**	0.61	**0.16**	0.13	
100-41-4	Ethylbenzene	**67**	0.61	**16**	0.14	
136777-61-2	*m,p*-Xylenes	**47**	1.2	**11**	0.28	
75-25-2	Bromoform	ND	0.61	ND	0.059	
100-42-5	Styrene	ND	0.61	ND	0.14	
95-47-6	o-Xylene	**15**	0.61	**3.4**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.61	ND	0.089	
541-73-1	1,3-Dichlorobenzene	ND	0.61	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.61	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.61	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: CHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-008

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00161

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5
D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.30	Ethanol	**30**	
7.06	Isopropyl Alcohol	**200**	
18.70	Hexamethylcyclotrisiloxane (Possible Artifact)	**200**	
22.99	Propylbenzene	**40**	
23.23	4-Ethyltoluene	**20**	
23.99	Unidentified Siloxane (Possible Artifact)	**30**	
24.05	1,2,4-Trimethylbenzene	**40**	
24.79	1,2,3-Trimethylbenzene	**40**	
25.13	C_9H_{10} Compound	**30**	
26.13	Nonanal + Unidentified Siloxane (Possible Artifact)	**40**	
27.36	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**30**	
27.92	Naphthalene	**20**	
30.41	$C_{14}H_{28}$ Compound	**100**	
30.54	$C_{14}H_{28}$ Compound	**80**	
30.72	$C_{14}H_{28}$ Compound	**50**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00590

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.7	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**190**	61	**82**	25	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.79	
75-15-0	Carbon Disulfide	**6.4**	6.1	**2.1**	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**46**	6.1	**16**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**130**	6.1	**40**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.96	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00590

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.90	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**60**	6.1	**16**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.71	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.89	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**470**	6.1	**110**	1.4	
136777-61-2	*m,p*-Xylenes	**90**	12	**21**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**47**	6.1	**11**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.88	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**8.5**	6.1	**1.4**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1B-SFU
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-009

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: T
Container ID: AC00590

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5 D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.04	Dimethylcyclopentane Isomer	1,000	
14.40	Methylcyclohexane	1,000	
15.44	Trimethylcyclopentane Isomer	1,000	
16.68	Dimethylcyclohexane Isomer	1,000	
19.08	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	1,000	
22.94	$C_{10}H_{20}$ Compound	1,000	
24.24	1,2,3-Trimethylbenzene + Unidentified Compound	800	
26.48	Decahydronaphthalene Isomer	700	
26.78	Decahydronaphthalene Isomer	800	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	800	
27.41	Naphthalene	200	
27.76	$C_{13}H_{28}$ Branched Alkane	600	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: CLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFUR**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00232

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.8	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**170**	61	**73**	26	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.80	
75-15-0	Carbon Disulfide	ND	6.1	ND	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**48**	6.1	**16**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**110**	6.1	**35**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.97	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFUR**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00232

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.91	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**59**	6.1	**16**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.72	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.90	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**450**	6.1	**100**	1.4	
136777-61-2	*m,p* -Xylenes	**90**	12	**21**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**46**	6.1	**11**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.89	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**8.5**	6.1	**1.4**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFUR**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-010

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00232

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5
D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.04	Dimethylcyclopentane Isomer	1,000	
14.40	Methylcyclohexane	1,000	
15.44	Trimethylcyclopentane Isomer	1,000	
16.68	Dimethylcyclohexane Isomer	900	
19.08	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	1,000	
22.94	$C_{10}H_{20}$ Compound	1,000	
26.48	Decahydronaphthalene Isomer	600	
26.77	Decahydronaphthalene Isomer	700	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	700	
27.41	Naphthalene	200	
27.60	$C_{11}H_{14}$ Compound + Decahydronaphthalene Isomer	600	
27.76	$C_{13}H_{28}$ Branched Alkane	700	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00386

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.3	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.3	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.3	ND	2.8	
74-83-9	Bromomethane	ND	6.3	ND	1.6	
75-00-3	Chloroethane	ND	6.3	ND	2.4	
67-64-1	Acetone	**270**	63	**110**	26	**M**
75-69-4	Trichlorofluoromethane	ND	6.3	ND	1.1	
107-13-1	Acrylonitrile	ND	6.3	ND	2.9	
75-35-4	1,1-Dichloroethene	ND	6.3	ND	1.6	
75-09-2	Methylene chloride	ND	6.3	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.3	ND	0.82	
75-15-0	Carbon Disulfide	**9.6**	6.3	**3.1**	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.3	ND	1.6	
75-34-3	1,1-Dichloroethane	ND	6.3	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.3	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.3	ND	1.8	
78-93-3	2-Butanone (MEK)	**57**	6.3	**19**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.3	ND	1.6	
67-66-3	Chloroform	ND	6.3	ND	1.3	
107-06-2	1,2-Dichloroethane	ND	6.3	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.3	ND	1.1	
71-43-2	Benzene	**79**	6.3	**25**	2.0	
56-23-5	Carbon Tetrachloride	ND	6.3	ND	0.99	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00386

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.3	ND	1.4	
75-27-4	Bromodichloromethane	ND	6.3	ND	0.93	
79-01-6	Trichloroethene	ND	6.3	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	6.3	ND	1.4	
108-10-1	4-Methyl-2-pentanone	ND	6.3	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.3	ND	1.4	
79-00-5	1,1,2-Trichloroethane	ND	6.3	ND	1.1	
108-88-3	Toluene	**47**	6.3	**12**	1.7	
591-78-6	2-Hexanone	ND	6.3	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.3	ND	0.73	
106-93-4	1,2-Dibromoethane	ND	6.3	ND	0.81	
127-18-4	Tetrachloroethene	ND	6.3	ND	0.92	
108-90-7	Chlorobenzene	ND	6.3	ND	1.4	
100-41-4	Ethylbenzene	**360**	6.3	**82**	1.4	
136777-61-2	*m,p*-Xylenes	**93**	13	**21**	2.9	
75-25-2	Bromoform	ND	6.3	ND	0.60	
100-42-5	Styrene	ND	6.3	ND	1.5	
95-47-6	o-Xylene	**43**	6.3	**10**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.3	ND	0.91	
541-73-1	1,3-Dichlorobenzene	ND	6.3	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.3	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**7.8**	6.3	**1.3**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1B-SFC1
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-011

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: T
Container ID: AC00386

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = -0.1 Pf 1 = 3.5

D.F. = 1.25

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
13.03	Dimethylcyclopentane Isomer	900	
14.39	Methylcyclohexane	900	
15.43	Trimethylcyclopentane Isomer	900	
16.67	Dimethylcyclohexane Isomer	800	
19.07	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	1,000	
22.93	$C_{10}H_{20}$ Compound	1,000	
26.78	Decahydronaphthalene Isomer	800	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	800	
27.41	Naphthalene	300	
27.60	$C_{11}H_{14}$ Compound + Decahydronaphthalene Isomer	800	
27.76	$C_{13}H_{28}$ Branched Alkane	900	
28.19	$C_{13}H_{26}$ Compound	800	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	1,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00482

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.62	ND	0.30	
75-01-4	Vinyl Chloride	ND	0.62	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.62	ND	0.28	
74-83-9	Bromomethane	ND	0.62	ND	0.16	
75-00-3	Chloroethane	ND	0.62	ND	0.24	
67-64-1	Acetone	**25**	6.2	**10**	2.6	
75-69-4	Trichlorofluoromethane	ND	0.62	ND	0.11	
107-13-1	Acrylonitrile	ND	0.62	ND	0.29	
75-35-4	1,1-Dichloroethene	ND	0.62	ND	0.16	
75-09-2	Methylene chloride	ND	0.62	ND	0.18	
76-13-1	Trichlorotrifluoroethane	ND	0.62	ND	0.081	
75-15-0	Carbon Disulfide	**1.5**	0.62	**0.47**	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	0.62	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.62	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.62	ND	0.17	L
108-05-4	Vinyl Acetate	**1.5**	0.62	**0.42**	0.18	M
78-93-3	2-Butanone (MEK)	**2.3**	0.62	**0.79**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.62	ND	0.16	
67-66-3	Chloroform	**9.3**	0.62	**1.9**	0.13	
107-06-2	1,2-Dichloroethane	ND	0.62	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.62	ND	0.11	L
71-43-2	Benzene	**2.5**	0.62	**0.78**	0.19	
56-23-5	Carbon Tetrachloride	ND	0.62	ND	0.099	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.
L = Laboratory control sample recovery not within specified limits.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1B-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00482

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.62	ND	0.13	
75-27-4	Bromodichloromethane	**1.8**	0.62	**0.27**	0.093	
79-01-6	Trichloroethene	ND	0.62	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.62	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.62	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.62	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.62	ND	0.11	
108-88-3	Toluene	**2.4**	0.62	**0.63**	0.16	
591-78-6	2-Hexanone	**1.2**	0.62	**0.29**	0.15	
124-48-1	Dibromochloromethane	**1.5**	0.62	**0.17**	0.073	
106-93-4	1,2-Dibromoethane	ND	0.62	ND	0.081	
127-18-4	Tetrachloroethene	ND	0.62	ND	0.091	
108-90-7	Chlorobenzene	ND	0.62	ND	0.13	
100-41-4	Ethylbenzene	**8.7**	0.62	**2.0**	0.14	
136777-61-2	*m,p*-Xylenes	**4.2**	1.2	**1.0**	0.29	
75-25-2	Bromoform	ND	0.62	ND	0.060	
100-42-5	Styrene	ND	0.62	ND	0.15	
95-47-6	o-Xylene	**1.3**	0.62	**0.30**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.62	ND	0.090	
541-73-1	1,3-Dichlorobenzene	ND	0.62	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.62	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.62	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1B-SFC2
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-012

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00482

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5 D.F. = 1.24

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
5.40	Acetaldehyde	60	
6.30	Ethanol	30	
7.06	Isopropyl Alcohol	200	
20.95	Heptanal	20	
26.13	Nonanal	40	
27.37	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	20	
27.83	Decanal	40	
27.92	Naphthalene	6	
29.21	Undecanal	20	
29.51	Methylnaphthalene Isomer	30	
29.75	Methylnaphthalene Isomer	20	
30.31	$C_{15}H_{32}$ Branched Alkane	20	
30.42	$C_{14}H_{28}$ Compound	300	
30.54	$C_{14}H_{28}$ Compound	200	
30.72	$C_{14}H_{28}$ Compound	100	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00140

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	31	ND	15	
75-01-4	Vinyl Chloride	ND	31	ND	12	
106-99-0	1,3-Butadiene	ND	31	ND	14	
74-83-9	Bromomethane	ND	31	ND	8.0	
75-00-3	Chloroethane	ND	31	ND	12	
67-64-1	Acetone	ND	310	ND	130	
75-69-4	Trichlorofluoromethane	ND	31	ND	5.5	
107-13-1	Acrylonitrile	ND	31	ND	14	
75-35-4	1,1-Dichloroethene	ND	31	ND	7.8	
75-09-2	Methylene chloride	ND	31	ND	8.9	
76-13-1	Trichlorotrifluoroethane	ND	31	ND	4.0	
75-15-0	Carbon Disulfide	ND	31	ND	10	
156-60-5	trans-1,2-Dichloroethene	ND	31	ND	7.8	
75-34-3	1,1-Dichloroethane	ND	31	ND	7.7	
1634-04-4	Methyl tert-Butyl Ether	ND	31	ND	8.6	
108-05-4	Vinyl Acetate	ND	31	ND	8.8	
78-93-3	2-Butanone (MEK)	**73**	31	**25**	11	
156-59-2	cis-1,2-Dichloroethene	ND	31	ND	7.8	
67-66-3	Chloroform	ND	31	ND	6.4	
107-06-2	1,2-Dichloroethane	ND	31	ND	7.7	
71-55-6	1,1,1-Trichloroethane	ND	31	ND	5.7	
71-43-2	Benzene	**950**	31	**300**	9.7	
56-23-5	Carbon Tetrachloride	ND	31	ND	4.9	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00140

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	31	ND	6.7	
75-27-4	Bromodichloromethane	ND	31	ND	4.6	
79-01-6	Trichloroethene	ND	31	ND	5.8	
10061-01-5	cis-1,3-Dichloropropene	ND	31	ND	6.8	
108-10-1	4-Methyl-2-pentanone	ND	31	ND	7.6	
10061-02-6	trans-1,3-Dichloropropene	ND	31	ND	6.8	
79-00-5	1,1,2-Trichloroethane	ND	31	ND	5.7	
108-88-3	Toluene	**3,800**	31	**1,000**	8.2	
591-78-6	2-Hexanone	ND	31	ND	7.6	
124-48-1	Dibromochloromethane	ND	31	ND	3.6	
106-93-4	1,2-Dibromoethane	ND	31	ND	4.0	
127-18-4	Tetrachloroethene	ND	31	ND	4.6	
108-90-7	Chlorobenzene	ND	31	ND	6.7	
100-41-4	Ethylbenzene	**1,800**	31	**430**	7.1	
136777-61-2	*m,p* -Xylenes	**4,400**	62	**1,000**	14	
75-25-2	Bromoform	ND	31	ND	3.0	
100-42-5	Styrene	**53**	31	**12**	7.3	
95-47-6	o-Xylene	**2,700**	31	**620**	7.1	
79-34-5	1,1,2,2-Tetrachloroethane	ND	31	ND	4.5	
541-73-1	1,3-Dichlorobenzene	ND	31	ND	5.2	
106-46-7	1,4-Dichlorobenzene	ND	31	ND	5.2	
95-50-1	1,2-Dichlorobenzene	ND	31	ND	5.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-013

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00140

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.020 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
9.65	n-Hexane	**6,000**	
12.82	Dimethylcyclopentane Isomer	**4,000**	
13.04	Dimethylcyclopentane Isomer	**5,000**	
14.40	Methylcyclopentane	**6,000**	
15.14	Trimethylcyclopentane Isomer	**4,000**	
15.44	Trimethylcyclopentane Isomer	**5,000**	
16.68	Dimethylcyclohexane Isomer	**5,000**	
19.08	Trimethylcyclohexane Isomer	**7,000**	
21.00	n-Nonane	**4,000**	
21.79	C_9H_{16} Compound	**5,000**	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	**5,000**	
22.94	$C_{10}H_{20}$ Compound	**5,000**	
23.48	1,2,4-Trimethylbenzene	**4,000**	
23.73	n-Decane	**4,000**	
24.22	1,2,3-Trimethylbenzene + Unidentified Compound	**5,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-014

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00225

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	3.0	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.8	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**95**	61	**40**	26	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.8	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.80	
75-15-0	Carbon Disulfide	ND	6.1	ND	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**22**	6.1	**7.6**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**150**	6.1	**47**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.97	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-014

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00225

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.91	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**610**	6.1	**160**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.72	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.90	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**350**	6.1	**81**	1.4	
136777-61-2	*m,p* -Xylenes	**830**	12	**190**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	**11**	6.1	**2.6**	1.4	
95-47-6	o-Xylene	**500**	6.1	**120**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.89	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**7.4**	6.1	**1.2**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-014

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00225

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.2 Pf 1 = 3.5

D.F. = 1.22

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
14.40	Methylcyclohexane	900	
15.44	Trimethylcyclopentane Isomer	800	
19.07	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.06	$C_{10}H_{22}$ Branched Alkane + C_9H_{18} Compound	1,000	
22.94	$C_{10}H_{20}$ Compound	1,000	
23.48	1,2,4-Trimethylbenzene	800	
23.73	n-Decane	1,000	
24.22	1,2,3-Trimethylbenzene + Unidentified Compound	1,000	
25.90	n-Undecane + Unidentified Compound	900	
26.48	Decahydronaphthalene Isomer	700	
26.78	Decahydronaphthalene Isomer	800	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	800	
27.41	Naphthalene	300	
27.76	$C_{14}H_{30}$ Branched Alkane	800	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-015

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00037

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04 & 6/12/04
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5
D.F. = 1.23

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.62	ND	0.30	
75-01-4	Vinyl Chloride	ND	0.62	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.62	ND	0.28	
74-83-9	Bromomethane	ND	0.62	ND	0.16	
75-00-3	Chloroethane	ND	0.62	ND	0.23	
67-64-1	Acetone	**33**	6.2	**14**	2.6	
75-69-4	Trichlorofluoromethane	ND	0.62	ND	0.11	
107-13-1	Acrylonitrile	ND	0.62	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.62	ND	0.16	
75-09-2	Methylene chloride	ND	0.62	ND	0.18	
76-13-1	Trichlorotrifluoroethane	ND	0.62	ND	0.080	
75-15-0	Carbon Disulfide	**2.5**	0.62	**0.80**	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	0.62	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.62	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.62	ND	0.17	L
108-05-4	Vinyl Acetate	**3.8**	0.62	**1.1**	0.17	M
78-93-3	2-Butanone (MEK)	**2.8**	0.62	**0.94**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.62	ND	0.16	
67-66-3	Chloroform	**2.4**	0.62	**0.49**	0.13	
107-06-2	1,2-Dichloroethane	ND	0.62	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.62	ND	0.11	L
71-43-2	Benzene	**45**	0.62	**14**	0.19	
56-23-5	Carbon Tetrachloride	ND	0.62	ND	0.098	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L2A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-015

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00037

Date Collected: 5/26/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9/04 & 6/12/04
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5

D.F. = 1.23

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.62	ND	0.13	
75-27-4	Bromodichloromethane	ND	0.62	ND	0.092	
79-01-6	Trichloroethene	ND	0.62	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.62	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.62	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.62	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.62	ND	0.11	
108-88-3	Toluene	**180**	0.62	**48**	0.16	
591-78-6	2-Hexanone	**1.1**	0.62	**0.27**	0.15	
124-48-1	Dibromochloromethane	ND	0.62	ND	0.072	
106-93-4	1,2-Dibromoethane	ND	0.62	ND	0.080	
127-18-4	Tetrachloroethene	ND	0.62	ND	0.091	
108-90-7	Chlorobenzene	**0.95**	0.62	**0.21**	0.13	
100-41-4	Ethylbenzene	**64**	0.62	**15**	0.14	
136777-61-2	*m,p*-Xylenes	**140**	1.2	**32**	0.28	
75-25-2	Bromoform	ND	0.62	ND	0.060	
100-42-5	Styrene	**3.0**	0.62	**0.70**	0.14	
95-47-6	o-Xylene	**73**	0.62	**17**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.62	ND	0.090	
541-73-1	1,3-Dichlorobenzene	ND	0.62	ND	0.10	
106-46-7	1,4-Dichlorobenzene	**0.76**	0.62	**0.13**	0.10	
95-50-1	1,2-Dichlorobenzene	**1.0**	0.62	**0.17**	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L2A-SFC2
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-015

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00037

Date Collected: 5/26/04
Date Received: 5/27/04
Date Analyzed: 6/9/04 & 6/12/04
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = 0.1 Pf 1 = 3.5
D.F. = 1.23

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.31	Ethanol	30	
7.06	Isopropyl Alcohol	100	
23.16	3-Ethyltoluene	40	
23.23	4-Ethyltoluene	20	
24.06	1,2,3-Trimethylbenzene	90	
24.78	1,2,4-Trimethylbenzene	100	
25.13	C_9H_{10} Compound	40	
26.11	Nonanal + $C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	30	
27.36	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	50	
27.82	Decanal	30	
27.92	Naphthalene	30	
29.51	Methylnaphthalene Isomer	50	
30.41	$C_{14}H_{28}$ Compound	200	
30.54	$C_{14}H_{28}$ Compound	100	
30.72	$C_{14}H_{28}$ Compound	80	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KaH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-016

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00292

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.7	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	ND	61	ND	25	
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.79	
75-15-0	Carbon Disulfide	ND	6.1	ND	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**13**	6.1	**4.3**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**720**	6.1	**230**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.96	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFU**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-016

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00292

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.90	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**30**	6.1	**7.9**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.71	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.89	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**1,000**	6.1	**230**	1.4	
136777-61-2	*m,p*-Xylenes	**51**	12	**12**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	**9.7**	6.1	**2.3**	1.4	
95-47-6	o-Xylene	**37**	6.1	**8.4**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.88	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	**7.1**	6.1	**1.2**	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1A-SFU
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-016

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00292

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.93	Cyclohexane	800	
12.82	Dimethylcyclopentane Isomer	900	
12.93	Dimethylcyclopentane Isomer	900	
13.04	Dimethylcyclopentane Isomer	1,000	
14.41	Methylcyclohexane	1,000	
15.44	Trimethylcyclopentane Isomer	1,000	
16.68	Dimethylcyclohexane Isomer	1,000	
19.07	Trimethylcyclohexane Isomer	1,000	
21.79	C_9H_{16} Compound	1,000	
22.05	C_9H_{18} Compound	900	
22.40	Propylbenzene	1,000	
25.57	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	800	
26.88	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	900	
27.41	Naphthalene	500	
28.54	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-017

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00176

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	6.1	ND	2.9	
75-01-4	Vinyl Chloride	ND	6.1	ND	2.4	
106-99-0	1,3-Butadiene	ND	6.1	ND	2.7	
74-83-9	Bromomethane	ND	6.1	ND	1.6	
75-00-3	Chloroethane	ND	6.1	ND	2.3	
67-64-1	Acetone	**80**	61	**34**	25	**M**
75-69-4	Trichlorofluoromethane	ND	6.1	ND	1.1	
107-13-1	Acrylonitrile	ND	6.1	ND	2.8	
75-35-4	1,1-Dichloroethene	ND	6.1	ND	1.5	
75-09-2	Methylene chloride	ND	6.1	ND	1.7	
76-13-1	Trichlorotrifluoroethane	ND	6.1	ND	0.79	
75-15-0	Carbon Disulfide	ND	6.1	ND	1.9	
156-60-5	trans-1,2-Dichloroethene	ND	6.1	ND	1.5	
75-34-3	1,1-Dichloroethane	ND	6.1	ND	1.5	
1634-04-4	Methyl tert-Butyl Ether	ND	6.1	ND	1.7	
108-05-4	Vinyl Acetate	ND	6.1	ND	1.7	
78-93-3	2-Butanone (MEK)	**17**	6.1	**5.9**	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	6.1	ND	1.5	
67-66-3	Chloroform	ND	6.1	ND	1.2	
107-06-2	1,2-Dichloroethane	ND	6.1	ND	1.5	
71-55-6	1,1,1-Trichloroethane	ND	6.1	ND	1.1	
71-43-2	Benzene	**410**	6.1	**130**	1.9	
56-23-5	Carbon Tetrachloride	ND	6.1	ND	0.96	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC1**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-017

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00176

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	6.1	ND	1.3	
75-27-4	Bromodichloromethane	ND	6.1	ND	0.90	
79-01-6	Trichloroethene	ND	6.1	ND	1.1	
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	ND	1.3	
108-10-1	4-Methyl-2-pentanone	ND	6.1	ND	1.5	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	ND	1.3	
79-00-5	1,1,2-Trichloroethane	ND	6.1	ND	1.1	
108-88-3	Toluene	**20**	6.1	**5.2**	1.6	
591-78-6	2-Hexanone	ND	6.1	ND	1.5	
124-48-1	Dibromochloromethane	ND	6.1	ND	0.71	
106-93-4	1,2-Dibromoethane	ND	6.1	ND	0.79	
127-18-4	Tetrachloroethene	ND	6.1	ND	0.89	
108-90-7	Chlorobenzene	ND	6.1	ND	1.3	
100-41-4	Ethylbenzene	**710**	6.1	**160**	1.4	
136777-61-2	*m,p*-Xylenes	**30**	12	**6.9**	2.8	
75-25-2	Bromoform	ND	6.1	ND	0.59	
100-42-5	Styrene	ND	6.1	ND	1.4	
95-47-6	o-Xylene	**20**	6.1	**4.7**	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	ND	0.88	
541-73-1	1,3-Dichlorobenzene	ND	6.1	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	6.1	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	6.1	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1A-SFC1
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-017

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00176

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/12/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
12.81	Dimethylcyclopentane Isomer	**700**	
12.93	Dimethylcyclopentane Isomer	**700**	
13.08	Dimethylcyclopentane Isomer	**1,000**	
14.40	Methylcyclohexane	**1,000**	
15.44	Trimethylcyclopentane Isomer	**800**	
16.67	Dimethylcyclohexane Isomer	**800**	
19.07	Trimethylcyclohexane Isomer	**1,000**	
21.78	C_9H_{16} Compound	**900**	
22.05	C_9H_{18} Compound	**800**	
22.40	Propylbenzene	**800**	
22.93	$C_{10}H_{20}$ Compound	**700**	
25.67	$C_{10}H_{12}$ Compound	**600**	
26.87	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	**800**	
27.41	Naphthalene	**400**	
28.55	$C_{14}H_{30}$ Branched Alkane + $C_{11}H_{14}$ Compound	**700**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-018

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00554

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9 - 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.61	ND	0.29	
75-01-4	Vinyl Chloride	ND	0.61	ND	0.24	
106-99-0	1,3-Butadiene	ND	0.61	ND	0.27	
74-83-9	Bromomethane	ND	0.61	ND	0.16	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
67-64-1	Acetone	**17**	6.1	**7.4**	2.5	**M**
75-69-4	Trichlorofluoromethane	ND	0.61	ND	0.11	
107-13-1	Acrylonitrile	ND	0.61	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-09-2	Methylene chloride	ND	0.61	ND	0.17	
76-13-1	Trichlorotrifluoroethane	ND	0.61	ND	0.079	
75-15-0	Carbon Disulfide	**2.7**	0.61	**0.87**	0.19	
156-60-5	trans-1,2-Dichloroethene	**1.4**	0.61	**0.36**	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
1634-04-4	Methyl tert-Butyl Ether	ND	0.61	ND	0.17	**L**
108-05-4	Vinyl Acetate	ND	0.61	ND	0.17	
78-93-3	2-Butanone (MEK)	**2.1**	0.61	**0.71**	0.21	
156-59-2	cis-1,2-Dichloroethene	ND	0.61	ND	0.15	
67-66-3	Chloroform	**2.7**	0.61	**0.55**	0.12	
107-06-2	1,2-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	**L**
71-43-2	Benzene	**140**	0.61	**44**	0.19	
56-23-5	Carbon Tetrachloride	ND	0.61	ND	0.096	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SFC2**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-018

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00554

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/9 - 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.61	ND	0.13	
75-27-4	Bromodichloromethane	ND	0.61	ND	0.090	
79-01-6	Trichloroethene	ND	0.61	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.61	ND	0.13	
108-10-1	4-Methyl-2-pentanone	ND	0.61	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.61	ND	0.13	
79-00-5	1,1,2-Trichloroethane	ND	0.61	ND	0.11	
108-88-3	Toluene	**7.4**	0.61	**2.0**	0.16	
591-78-6	2-Hexanone	**2.7**	0.61	**0.65**	0.15	
124-48-1	Dibromochloromethane	ND	0.61	ND	0.071	
106-93-4	1,2-Dibromoethane	ND	0.61	ND	0.079	
127-18-4	Tetrachloroethene	ND	0.61	ND	0.089	
108-90-7	Chlorobenzene	ND	0.61	ND	0.13	
100-41-4	Ethylbenzene	**220**	0.61	**51**	0.14	
136777-61-2	*m,p* -Xylenes	**11**	1.2	**2.6**	0.28	
75-25-2	Bromoform	ND	0.61	ND	0.059	
100-42-5	Styrene	**2.8**	0.61	**0.67**	0.14	
95-47-6	o-Xylene	**5.6**	0.61	**1.3**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.61	ND	0.088	
541-73-1	1,3-Dichlorobenzene	ND	0.61	ND	0.10	
106-46-7	1,4-Dichlorobenzene	**0.91**	0.61	**0.15**	0.10	
95-50-1	1,2-Dichlorobenzene	**1.2**	0.61	**0.21**	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RJH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1A-SFC2
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-018

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes: **T**
Container ID: AC00554

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/9 - 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = 0.4 Pf 1 = 3.5
D.F. = 1.21

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
7.03	Isopropyl Alcohol	80	
7.35	n-Pentane	60	
9.21	2-Methylpentane	50	
12.58	Cyclohexane	60	
13.47	Dimethylcyclopentane Isomer	70	
13.58	Dimethylcyclopentane Isomer	70	
13.69	Dimethylcyclopentane Isomer	100	
15.08	Methylcyclohexane	100	
16.09	Trimethylcyclopentane Isomer	60	
19.70	Trimethylcyclohexane Isomer	60	
22.99	Propylbenzene	100	
25.17	C_9H_{10} Compound	80	
26.09	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	50	
27.36	$C_{10}H_{14}$ Aromatic Compound + $C_{10}H_{12}$ Compound	70	
27.92	Naphthalene	70	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SF300**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-019

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00296

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 1.7 Pf 1 = 3.8

D.F. = 1.13

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.57	ND	0.27	
75-01-4	Vinyl Chloride	ND	0.57	ND	0.22	
106-99-0	1,3-Butadiene	ND	0.57	ND	0.26	
74-83-9	Bromomethane	ND	0.57	ND	0.15	
75-00-3	Chloroethane	ND	0.57	ND	0.21	
67-64-1	Acetone	ND	5.7	ND	2.4	
75-69-4	Trichlorofluoromethane	ND	0.57	ND	0.101	
107-13-1	Acrylonitrile	ND	0.57	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.57	ND	0.14	
75-09-2	Methylene chloride	ND	0.57	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.57	ND	0.074	
75-15-0	Carbon Disulfide	ND	0.57	ND	0.18	
156-60-5	trans-1,2-Dichloroethene	ND	0.57	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.57	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.57	ND	0.16	L
108-05-4	Vinyl Acetate	**1.2**	0.57	**0.34**	0.16	
78-93-3	2-Butanone (MEK)	**0.72**	0.57	**0.25**	0.19	
156-59-2	cis-1,2-Dichloroethene	ND	0.57	ND	0.14	
67-66-3	Chloroform	ND	0.57	ND	0.12	
107-06-2	1,2-Dichloroethane	ND	0.57	ND	0.14	
71-55-6	1,1,1-Trichloroethane	ND	0.57	ND	0.10	L
71-43-2	Benzene	ND	0.57	ND	0.18	
56-23-5	Carbon Tetrachloride	ND	0.57	ND	0.090	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **PNL-L1A-SF300**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P2401135-019

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00296

Date Collected: 5/27/04
Date Received: 5/27/04
Date(s) Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 1.7 Pf 1 = 3.8

D.F. = 1.13

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.57	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.57	ND	0.084	
79-01-6	Trichloroethene	ND	0.57	ND	0.11	
10061-01-5	cis-1,3-Dichloropropene	ND	0.57	ND	0.12	
108-10-1	4-Methyl-2-pentanone	ND	0.57	ND	0.14	
10061-02-6	trans-1,3-Dichloropropene	ND	0.57	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.57	ND	0.10	
108-88-3	Toluene	ND	0.57	ND	0.15	
591-78-6	2-Hexanone	ND	0.57	ND	0.14	
124-48-1	Dibromochloromethane	ND	0.57	ND	0.066	
106-93-4	1,2-Dibromoethane	ND	0.57	ND	0.074	
127-18-4	Tetrachloroethene	ND	0.57	ND	0.083	
108-90-7	Chlorobenzene	ND	0.57	ND	0.12	
100-41-4	Ethylbenzene	ND	0.57	ND	0.13	
136777-61-2	*m,p* -Xylenes	ND	1.1	ND	0.26	
75-25-2	Bromoform	ND	0.57	ND	0.055	
100-42-5	Styrene	ND	0.57	ND	0.13	
95-47-6	o-Xylene	ND	0.57	ND	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.57	ND	0.082	
541-73-1	1,3-Dichlorobenzene	ND	0.57	ND	0.094	
106-46-7	1,4-Dichlorobenzene	ND	0.57	ND	0.094	
95-50-1	1,2-Dichlorobenzene	ND	0.57	ND	0.094	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-L1A-SF300
Client Project ID: Ascon LF/SB0202 / 31

CAS Project ID: P2401135
CAS Sample ID: P2401135-019

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00296

Date Collected: 5/27/04
Date Received: 5/27/04
Date Analyzed: 6/10/04
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 1.7 Pf 1 = 3.8

D.F. = 1.13

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040609-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	L
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	L
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040609-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040609-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/9/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	L
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
L = Laboratory control sample recovery not within specified limits.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KLH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo/Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KHH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KMH Date: 06/18/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **GeoSyntec Consultants, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Ascon LF/SB0202 / 31**

CAS Project ID: P2401135
CAS Sample ID: P040611-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Michelle Sakamoto
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/11/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: KHH Date: 06/18/04

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401135

Project: Ascon LF/SB0202 / 31

Sample(s) received on: 5/27/04 Date opened: 5/27/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
2	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☒	☐
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401135-001			NA	
P2401135-002			NA	
P2401135-003			NA	
P2401135-004			NA	
P2401135-005			NA	
P2401135-006			NA	
P2401135-007			NA	
P2401135-008			NA	
P2401135-009			NA	
P2401135-010			NA	

Explain any discrepancies: (include lab sample ID numbers):

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2401135

Project: Ascon LF/SB0202 / 31

Sample(s) received on: 5/27/04 Date opened: 5/27/04 by: SM

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2401135-011			NA	
P2401135-012			NA	
P2401135-013			NA	
P2401135-014			NA	
P2401135-015			NA	
P2401135-016			NA	
P2401135-017			NA	
P2401135-018			NA	
P2401135-019			NA	

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

5/28/

Client/Address	GeoSyntec Consultants 2100 Main St. #150 Huntington Beach, CA 92648
Project Name	Ascon LF
Project Number	SB0202/31
CAS Project No.	P2401134/5
Phone	(714) 969-0800
Fax	(714) 969-0820
Sampling Location	Huntington Beach
Email	mreardon@geosyntec.com
P.O. #/Billing Information	GeoSyntec @ SB0202/31
Contact	Mike Reardon
Sampler (Signature)	
Analysis	TO 15/ TO 3 Project List
Expected Turnaround Time	24 Hr 48Hr 3Day 4Day 5Day Standard (10 Business Days)
Cooler / Blank	Temp_____

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	~~Flow Controller~~ (Serial #)	Sample Volume (Liters)	TO 15/ TO 3 Project List					Comments (e.g., preservative or specific instructions)
PNL-L3B-SFC1	05-25-04	12:01	-1	Soil Gas	00064	SC00132	6	X					
PNL-L3B-SFC2	"	11:36	-2	"	00323	SC00068	6	X					
PNL-L3A-SFU	"	14:42	-3	"	00157	SC00104	6	X					
PNL-L3A-SFC1	"	15:22	-4	"	01233	SC00561	6	X					
PNL-L3A-SFC2	"	15:45	-5	"	01547	SC00491	6	X					
PNL-L2B-SFU	05-26-04	11:06	-6	"	01393	SC00443	6	X					
PNL-L2B-SFC1	"	11:42	-7	"	00531	SC00549	6	X					
PNL-L2B-SFC2	"	12:12	-8	"	01168	AC00161	6	X					
PNL-L1B-SFU	"	13:18	-9	"	02003	AC00570	6	X					
PNL-L1B-SFUR	"	13:25	-10	"	01242	AC00232	6	X					
PNL-L1B-SFC1	"	14:15	-11	"	01601	AC00386	6	X					
PNL-L1B-SFC2	"	14:13	-12	"	01819	AC00482	6	X					
PNL-L2A-SFU	"	15:24	-13	"	01288	AC00140	6	X					
PNL-L2A-SFC1	"	16:14	-14	"	01159	AC00225	6	X					
PNL-L2A-SFC2	"	16:09	-15	"	01291	AC00037	6	X					

	Date:	Time:		Date:	Time:
Relinquished by: (Signature)	05-26-04	16:29	Received by: (Signature)	5/26/04	1629
Relinquished by: (Signature)	5/27/04	1145	Received by: (Signature)	5/27/04	1145
Relinquished by: (Signature)	5/27/04	1500	Received by: (Signature) Sharon Malone	5/27/04	1500

Additional Comments

Columbia Analytical Services INC.
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record
Analytical Service Request

Client/Address: GeoSyntec Consultants, 2100 Main St, #150, HB, CA 92648

Project Name: ASCON

Project Number: SB0202131

CAS Project No.: P2401135

Phone: (714) 969-0800 Fax: (714) 969-0820

Sampling Location: Huntington Beach

Email: mreardon@geosyntec.com

P.O. #/Billing Information: GeoSyntec SB0202131

Contact: Mike Reardon

Sampler (Signature): [signature]

Analysis: TO-15, TO-3 PROJECT LIST

Expected Turnaround Time: 24 Hr 48Hr 3Day 4Day 5Day Standard (10 Business Days)

Cooler / Blank: Temp_____

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	~~Flow~~ Controller (Serial #)	Sample Volume (Liters)	TO-15, TO-3 PROJECT LIST					Comments (e.g., preservative or specific instructions)
PNL-LIA-SFU	05-27-04	7:42	-16	SOIL FLUX	01445	/ AC00292	6	X					
PNL-LIA-SFC1	"	8:45	-17	"	01330	/ AC00176	6	X					
PNL-LIA-SFC2	"	8:30	-18	"	01903	/ AC00554	6	X					
PNL-LIA-SF300	"	8:50	-19	"	01449	/ AC00296	6	X					

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	05-27-04	09:30	[signature]	5/27/04	0930
[signature]	5/27/04	1145	[signature]	5/27/04	1145
[signature]	5/27/04	1500	[signature]	5/27/04	1500

Additional Comments