

## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

Prizmiere

October 08, 2012

Project: Prizmiere

Submittal Date: 10/02/2012

Group Number: 1339334

State of Sample Origin: NA

Client Sample Description

Solid Sample

Lancaster Labs (LLI) #

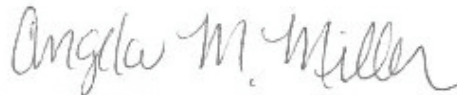
6808178

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC      Prizmiere  
COPY TO

Attn: Howard Friedman

Respectfully Submitted,

Angela M. Miller  
Specialist

(717) 556-7260

**Sample Description: Solid Sample**  
**Prizmiere**

**LLI Sample # G4 6808178**  
**LLI Group # 1339334**  
**Account # 01907**

**Project Name: Prizmiere**

Collected: n.a.

Prizmiere

Submitted: 10/02/2012 11:45

Reported: 10/08/2012 08:12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>		<b>SW-846 6010B</b>	<b>mg/kg</b>	<b>mg/kg</b>	
06944	Antimony	7440-36-0	47.0	19.8	1
06935	Arsenic	7440-38-2	< 19.8	19.8	1
06946	Barium	7440-39-3	< 4.95	4.95	1
06947	Beryllium	7440-41-7	< 4.95	4.95	1
06949	Cadmium	7440-43-9	< 4.95	4.95	1
06951	Chromium	7440-47-3	< 14.8	14.8	1
06952	Cobalt	7440-48-4	< 4.95	4.95	1
06953	Copper	7440-50-8	< 9.89	9.89	1
06955	Lead	7439-92-1	< 14.8	14.8	1
06960	Molybdenum	7439-98-7	< 9.89	9.89	1
06961	Nickel	7440-02-0	< 9.89	9.89	1
06936	Selenium	7782-49-2	< 19.8	19.8	1
06966	Silver	7440-22-4	< 4.95	4.95	1
Reporting limits for ICP metals were raised due to interference from the sample matrix.					
06925	Thallium	7440-28-0	< 29.7	29.7	1
06971	Vanadium	7440-62-2	< 4.95	4.95	1
06972	Zinc	7440-66-6	< 19.8	19.8	1
		<b>SW-846 7471A</b>	<b>mg/kg</b>	<b>mg/kg</b>	
00159	Mercury	7439-97-6	< 0.586	0.586	1

## General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06935	Arsenic	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06946	Barium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06952	Cobalt	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06953	Copper	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06955	Lead	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06960	Molybdenum	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06966	Silver	SW-846 6010B	1	122785708001	10/05/2012 20:42	John W Yanzuk II	1
06925	Thallium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06971	Vanadium	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	122785708001	10/05/2012 14:21	Eric L Eby	1

Sample Description: Solid Sample  
Prizmiere

LLI Sample # G4 6808178  
LLI Group # 1339334  
Account # 01907

Project Name: Prizmiere

Collected: n.a.

Prizmiere

Submitted: 10/02/2012 11:45

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## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	Mercury	SW-846 7471A	1	122785711001	10/05/2012 08:20	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	122785708001	10/04/2012 23:00	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122785711001	10/05/2012 02:20	Annamaria Stipkovits	1

## Quality Control Summary

Client Name: Prizmiere

Group Number: 1339334

Reported: 10/08/12 at 08:12 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

## Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 122785708001	Sample number(s): 6808178							
Antimony	< 2.00	2.00	mg/kg	105		80-120		
Arsenic	< 2.00	2.00	mg/kg	102		80-120		
Barium	< 0.500	0.500	mg/kg	102		80-120		
Beryllium	< 0.500	0.500	mg/kg	101		80-120		
Cadmium	< 0.500	0.500	mg/kg	103		80-120		
Chromium	< 1.50	1.50	mg/kg	102		80-120		
Cobalt	< 0.500	0.500	mg/kg	105		80-120		
Copper	< 1.00	1.00	mg/kg	106		80-120		
Lead	< 1.50	1.50	mg/kg	106		80-120		
Molybdenum	< 1.00	1.00	mg/kg	101		80-120		
Nickel	< 1.00	1.00	mg/kg	106		80-120		
Selenium	< 2.00	2.00	mg/kg	105		80-120		
Silver	< 0.500	0.500	mg/kg	92		80-120		
Thallium	< 3.00	3.00	mg/kg	108		80-120		
Vanadium	< 0.500	0.500	mg/kg	103		80-120		
Zinc	< 2.00	2.00	mg/kg	100		80-120		
Batch number: 122785711001	Sample number(s): 6808178							
Mercury	< 0.0973	0.0973	mg/kg	101		80-120		

## Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 122785708001	Sample number(s): 6808178 UNSPK: P810585 BKG: P810585								
Antimony	85	87	75-125	3	20	< 1.98	< 1.98	19 (1)	20
Arsenic	97	97	75-125	1	20	2.23	2.60	15 (1)	20
Barium	109	120	75-125	7	20	75.0	93.5	22*	20
Beryllium	105	105	83-111	0	20	< 0.495	< 0.495	13 (1)	20
Cadmium	97	98	75-125	1	20	< 0.495	< 0.495	0 (1)	20
Chromium	123	120	75-125	1	20	14.4	13.2	8	20
Cobalt	99	99	78-113	0	20	1.54	1.33	14 (1)	20
Copper	114	114	75-125	0	20	< 0.990	< 0.990	23* (1)	20
Lead	97	95	75-125	1	20	7.16	6.70	7 (1)	20
Molybdenum	96	96	77-110	0	20	< 0.990	< 0.990	200* (1)	20
Nickel	100	100	75-125	0	20	3.18	2.85	11 (1)	20
Selenium	103	101	75-125	2	20	< 1.98	< 1.98	0 (1)	20
Silver	84	83	75-125	2	20	< 0.495	< 0.495	200* (1)	20

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Prizmiere

Group Number: 1339334

Reported: 10/08/12 at 08:12 AM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Thallium	101	101	75-125	0	20	< 2.97	< 2.97	23* (1)	20
Vanadium	114	111	75-125	2	20	25.7	22.4	14	20
Zinc	100	99	75-125	1	20	13.7	12.0	13	20
Batch number: 122785711001	Sample number(s): 6808178 UNSPK: P810585 BKG: P810585								
Mercury	101	104	80-120	3	20	< 0.0971	< 0.0977	200* (1)	20

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

## Data Qualifiers:

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

## U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>25\%$	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	Correlation coefficient for MSA $<0.995$

**Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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