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Prepared for: Pyramid Construction and Aggregates Inc.

Project Title: American Girl Operation, Imperial County, California

Project No: 133384-011\*\*\*\*

### Technical Memorandum No. 1

Subject: Analytical Results from Total Cyanide Testing at the American Girl Operation

Date: August 4, 2008

To: Daryl Dickerson, Pyramid Construction and Aggregates Inc.

From: Barbara Goodrich-Welk

Copy to: Tom McBride, Structors Incorporated  
David Black, Imperial County  
Matt Keisling, Wiley and Taylor  
File

Prepared by:



Timothy Seeno, Project Geologist, PG #8183

Reviewed by:



Barbara Goodrich-Welk, Client Service Manager



#### Limitations:

*This document was prepared solely for Pyramid Construction and Aggregates Inc. in accordance with professional standards at the time the services were performed and in accordance with the contract between Pyramid Construction and Aggregates Inc. and Brown and Caldwell dated October 30, 2007. This document is governed by the specific scope of work authorized by Pyramid Construction and Aggregates Inc.; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Pyramid Construction and Aggregates Inc. and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

## 1. INTRODUCTION

This technical memorandum describes sampling activities and total cyanide analytical results of soil samples collected from stockpiled material proposed for mining at Pyramid Construction and Aggregate Inc.’s (Pyramid) American Girl Operation located in Imperial County, California (Attachment A, Figure 1). This sampling event was conducted in response to concerns by the Air Pollution Control District about the presence of residual cyanide at the American Girl Operation by historic gold mining operations or the presence of residual cyanide transported to the site by wind blown deposition of dust. There was an additional request for sampling from Structor’s Incorporated in their July 21, 2008 letter to Pyramid. Structor’s is a potential end-user of the material to be extracted from the proposed 40-acre parcel.

The Bureau of Land Management (BLM) has indicated that cyanide was not used during historic mining operations on this 40-acre portion of the former American Girl Mine. Therefore, while the cyanide sampling was not required, it was completed as a precautionary measure to ensure that removal and use of the aggregate from the stockpile do not create dust containing cyanide or create deleterious conditions when used as base material. The sampling for this investigation included the collection of five surface soil samples from the stockpile, surveying of the sampling locations, and analysis for total cyanide.

## 2. FIELD ACTIVITIES

Field activities were conducted on July 24, 2008 and included the collection of five soil samples and surveying of the sample locations. The samples were collected along the top of the stockpile and were surveyed for both horizontal and vertical location by a crew from Pyramid (Attachment A, Figure 2). Samples were collected using disposable trowels and eight-ounce glass jars. Approximately three to six inches of soil and rock was removed from the surface of the stockpile, depending on conditions, and then the sample was collected. The samples consisted of both soil and small rock from the surface of the stockpile. Large rocks were excluded from the sample to allow for an adequate sample volume for analysis. The samples were put on ice and transported under proper chain-of-custody protocol for analysis at Calscience Environmental Laboratories located in Garden Grove, California. The analytical method utilized for total cyanide was United States Environmental Protection Agency Method 9010B/9014.

## 3. RESULTS AND CONCLUSIONS

Results from the five samples indicated no detectable concentrations of total cyanide (Table 3-1).

Table 3-1. Total Cyanide Results (milligram per kilogram)

Sample ID	Sample Date	Concentration
PMSP301	7/24/08	<0.50
PMSP302	7/24/08	<0.50
PMSP303	7/24/08	<0.50
PMSP304	7/24/08	<0.50
PMSP305	7/24/08	<0.50

<0.5 – value is below the laboratory reporting limit

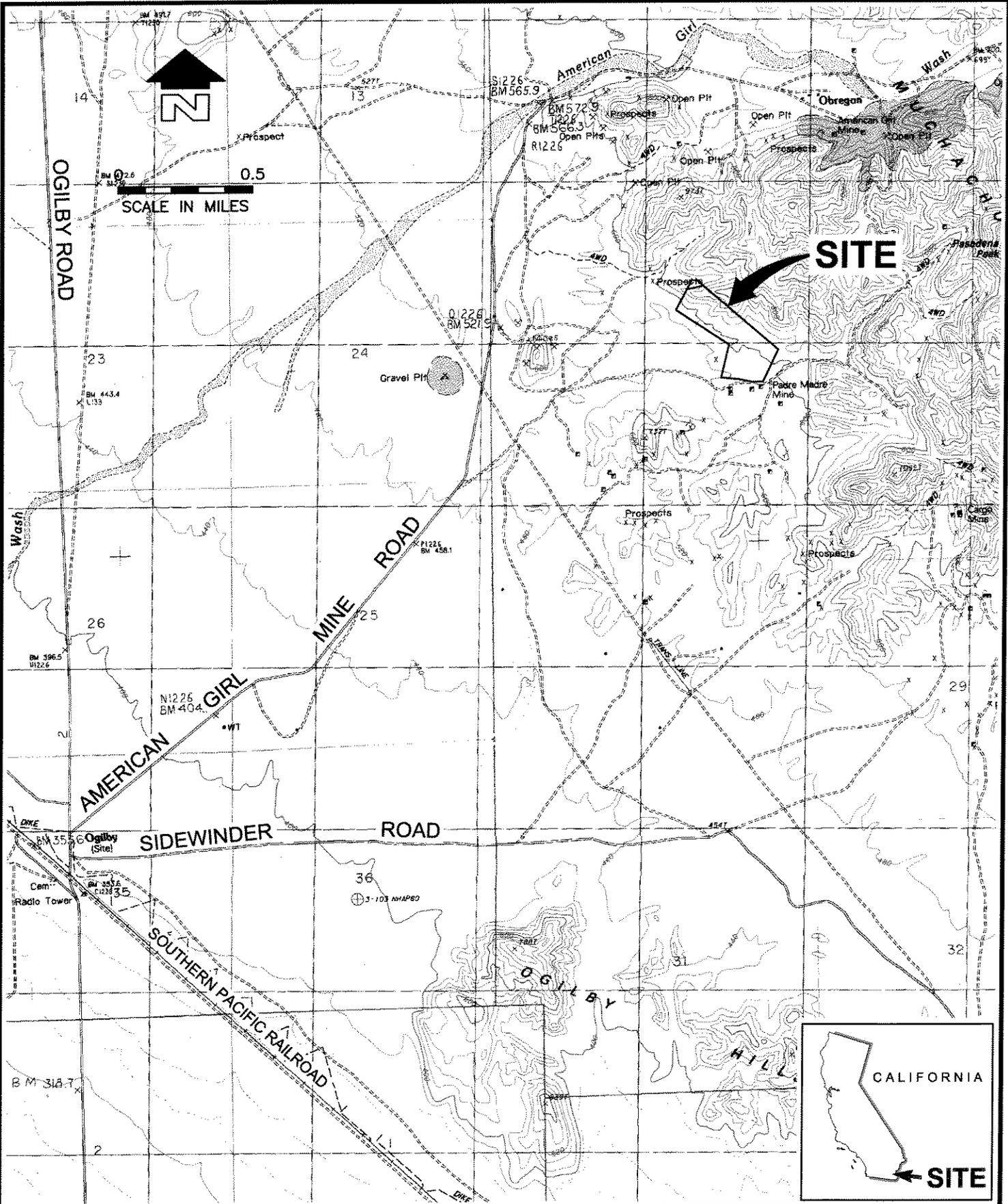
The laboratory report for the analyses is included in Attachment B. These results support the statement by BLM that cyanide was not used on the 40-acre parcel of the former American Girl Mine that Pyramid is leasing for mineral extraction. The results also show that no significant deposition of cyanide has occurred by wind from the adjacent areas that used cyanide. Since total cyanide was not detected in the samples collected from the stockpile no further action or mitigation measures are recommended prior to and during aggregate removal and use.

## ATTACHMENT A

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Figure 1. Vicinity Map, American Girl Operation

Figure 2. Site Map, American Girl Operation



DATE  
JULY 2008

PROJECT NUMBER  
133384

**BROWN AND CALDWELL**

SAN DIEGO, CALIFORNIA

**VICINITY MAP  
AMERICAN GIRL OPERATION**

PROJECT LOCATION  
PYRAMID CONSTRUCTION & AGGREGATES PROPOSED AMERICAN GIRL OPERATION  
APPROX. 3 MILES NE OF OGILBY  
IMPERIAL COUNTY, CALIFORNIA

FIGURE  
**1**



**ATTACHMENT B**

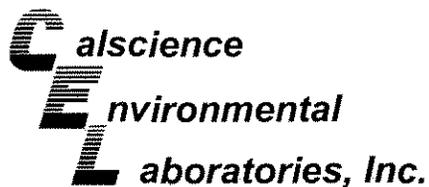
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**Analytical Data**

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**BROWN AND CALDWELL**

**ATT-B**



July 29, 2008

Barbara Welk  
Brown & Caldwell  
9665 Chesapeake Drive, Suite 201  
San Diego, CA 92123-1601

Subject: **Calscience Work Order No.:** 08-07-2292  
**Client Reference:** Padre Madre Pyramid / 133384

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/25/2008 and analyzed in accordance with the attached chain-of-custody.

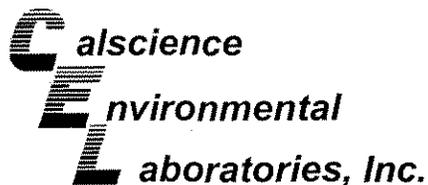
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, which appears to read "Virendra Patel", is enclosed within a hand-drawn oval.

Calscience Environmental  
Laboratories, Inc.  
Virendra Patel  
Project Manager



Quality Control - LCS/LCS Duplicate



Brown & Caldwell  
 9665 Chesapeake Drive, Suite 201  
 San Diego, CA 92123-1601

Date Received: N/A  
 Work Order No: 08-07-2292  
 Preparation: N/A  
 Method: EPA 9010B/9014

Project: Padre Madre Pyramid / 133384

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-029-1,855	Solid	UV.2	07/24/08	07/25/08	80725CNL1

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cyanide, Total	80	80	80-120	0	0-20	

RPD - Relative Percent Difference, CL - Control Limit



# CalScience Environmental Laboratories, Inc.

SoCal Laboratory  
 7440 Lincoln Way  
 Garden Grove, CA 92841-1427  
 (714) 895-5494

NorCal Service Center  
 5063 Commercial Circle, Suite H  
 Concord, CA 94520-8577  
 (925) 689-9022

## CHAIN OF CUSTODY RECORD

Date 7/24/08

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LABORATORY CLIENT: Brown and Caldwell

ADDRESS: 9665 Chesapeake Drive, Suite 201

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-514-8822 E-MAIL: Esceno@brwncauld.com

TURNAROUND TIME:  
 SAME DAY  24 HR  48 HR  72 HR  STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)  
 RWQCB REPORTING FORMS  COELT EDF

SPECIAL INSTRUCTIONS:  
 Revised COC received on 07/29/08 at 09:08. P.O.# added to COC.

CLIENT PROJECT NAME / NUMBER: Radio Marie Pyramid / 133384 P.O. NO.: 2569

PROJECT CONTACT: Barbara Welk / Tim Seeno

SAMPLER(S) (PRINT): Tim Seeno COELT LOG CODE:

LAB USE ONLY:  -

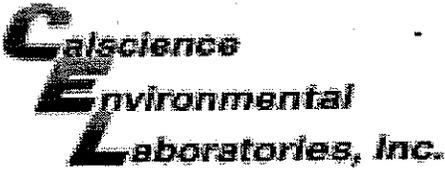
COOLER RECEIPT: TEMP = \_\_\_\_\_ °C

### REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING		MATRIX	NO. OF CONT.	TPH (g)	TPH (d) or (C6-C36) or (C6-C44)	TPH (l)	BTEX / MTBE (8260B) or ( )	VOCs (8260B)	Oxygenates (8260B)	Encore Prep (8035)	SVOCs (8270C)	Pesticides (8081A)	PCBs (8082)	PNAs (8310) or (8270C)	T22 Metals (6010B/747X)	Cr(VI) (7196A or 7199 or 218.6)	VOCs (TO-14A) or (TO-15)	TPH (g) [TO-3]†	Total Cyanide	
			DATE	TIME																			
	PMSP301	—	7/24/08	1122	S	1																	
	PMSP302	↓		1126	↓	↓																	
	PMSP303	↓		1131	↓	↓																	
	PMSP304	↓		1137	↓	↓																	
	PMSP305	↓		1145	↓	↓																	

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>CEL</u>	Date: <u>7/29/08</u>	Time: <u>1225</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.  
 Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.



WORK ORDER #: 08 - 07 - 2292

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Brown & Caldwell

DATE: 7/25/8

TEMPERATURE - SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
Chilled, cooler without temperature blank.
Chilled and placed in cooler with wet ice.
Ambient and placed in cooler with wet ice.
Ambient temperature (For Air & Filter only).

LABORATORY (Other than CalScience Courier):

- C Temperature blank.
C IR thermometer.
Ambient temperature (For Air & Filter only).

3.5 C Temperature blank.

Initial: [Signature]

CUSTODY SEAL INTACT:

Sample(s): Cooler: No (Not Intact):

Not Present: [Signature]

Initial: [Signature]

SAMPLE CONDITION:

Table with 4 columns: Description, Yes, No, N/A. Rows include Chain-Of-Custody document(s), Sampler's name, Sample container label(s), Sample container(s) intact, Correct containers and volume, Proper preservation, VOA vial(s) free of headspace, Tedlar bag(s) free of condensation.

Initial: [Signature]

COMMENTS:

Multiple horizontal lines for handwritten comments.