MACTEC

June 30, 2005

4400051035 01

Mr. Scott Smale
Brownfields/State Response
Bureau of Corrective Actions
Nevada Division of Environmental Protection
333 W. Nye Lane, Room 138
Carson City, Nevada 89706



**Drum Characterization and Removal Activities**
**Nevada Northern Railway Museum**
**Brownfields Project**
**11th Street and Avenue A**
**Ely, Nevada**

Dear Mr. Smale:

This report presents the summary of the drum characterization and removal activities performed by MACTEC Engineering and Consulting, Inc. (MACTEC) for the Nevada Division of Environmental Protection (NDEP) Bureau of Corrective Actions, Brownfields Program. The Subject Property is a former operating rail yard constructed in the early 1900's to serve the local copper mining operations and was active until mining operations ceased in the early 1980's. The property currently belongs to the White Pine Historical Railroad Foundation (dba Nevada Northern Railway Museum), and is used for tourist excursions and the restoration and preservation of the Nevada Northern Railway historic facilities, yards, and rail collection. The facility is comprised of the depot, roundhouse, coal chute, yards and a complex of carpentry, fabrication, maintenance, and storage shops.

The purpose of MACTEC's work was to provide NDEP with services at the Museum to address existing drums located throughout the site that needed to have their contents characterized for recycling or disposal, as appropriate. On November 8, 2004, a brief tour of the railway museum facilities was conducted by NDEP and MACTEC representatives. During the tour, approximately 30 drums were noted throughout the site.

## SCOPE OF WORK

Our scope of work under this contract included the following:

- Document Preparation
- Field activities to perform evaluation of the drums
- Drum Content Analysis

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300 • Petaluma, CA 94954
707-793-3800 • Fax: 707-793-3900

- Drum Removal, Transport, and Disposal
- Preparing this report.

**SUMMARY OF ACTIVITIES**

Field Activities

Prior to conducting field activities, a Health and Safety Plan was prepared and the Standard Operating Procedure (SOP) for drum sampling (SOP #2009, dated 11/16/1994, Revision # 0) developed by the USEPA Environmental Response Team (ERT) was submitted to the NDEP for review.

On May 10 through 12, 2005, MACTEC with assistance from Nevada Crime Cleaners (NCC), performed field activities consisting of drum/container inspection, inventory, staging, sampling, and categorization using the SOP procedures. The inventory did not include 13 observed empty drums and the over 100 one-pint to one-gallon cans of paint, lacquers, and thinner stored in the carpentry, maintenance, and storage shops. A list of drum/containers identified as a result of the field activities is presented in as Attachment 1.

If the drum/containers lacked labels or other identifying marks which indicated their contents, they were further evaluated using one or more of the following devices:

- Photoionization device (PID)
- Flame ionization device (FID)
- Lower explosive limit/oxygen (LEL/O2) meter
- Radiation detection meters
- Chemical classification kits (Spilfyter® and/or HazCat®)

As presented in Attachment 1, a total of 127 drum/containers were identified as a result of the drum inventory activities. The attachment summarizes container markings (if present) and contents, percent full, whether it was determined to be corrosive, if it is shippable in its current state, and its location. Containers ranged in size from 5 to 300 gallons with the majority of the container contents being grease or oil. Several of the containers were determined to be empty.

On the basis of the drum categorization activities, it was determined that two drums (numbers 94 and 113) required sampling and laboratory analysis for further characterization to evaluate offsite disposal options. In addition, at the request of the Museum, samples were also collected of piping installation and from a container of water softener to determine if these items had hazardous properties.

Drum Contents, Piping Installation and Water Softener Container Analysis

On the basis of markings on Drums 94 and 113, both samples from these containers were analyzed for the seven toxic hazardous waste metals using the Toxicity Characteristic Leaching Procedure (TCLP), EPA Test Methods 1311/6010B, as well as for mercury using EPA Test Method 7470. In addition, due to its labeling as alkaline, Drum 113 was analyzed for corrosivity and general mineral characteristics as follows:

- Magnesium by EPA Test Method 6010 B
- pH by 150.1
- Alkalinity as CaCO3 by SM 2320 Modified
- Chloride by EPA Test Method 300.0 Modified

The contents of the water softener container was analyzed for the same constituents as Drum 113 while the piping installation was analyzed for general mineral characteristics and asbestos (using polarized light microscopy).

With the exception of the asbestos analysis, sample analysis was performed by Del Mar Analytical, located in Phoenix, Arizona. The laboratory is certified by the Environmental Laboratory Accreditation Program (ELAP) under certificate number 2446, the State of Nevada Department of Health under certificate number AZ-907, and by the National Environmental Accreditation Program (NELAP) under accreditation number 01109CA. The asbestos analysis was performed by Fiberquant Analytical Services (under subcontract to Del Mar) located in Phoenix, Arizona.

The laboratory analytical report is attached as Attachment 2. Results of the analysis indicated the following:

- Drum 94 was non-detect for all metals and was characterized as an inorgancic non-hazardous material.
- Drum 113 had a high pH and high corrosivity and was characterized as an inorganic basic and corrosive hazardous waste.
- The contents of the water softener container had a moderate pH and high corrosivty and was characterized as an inorganic basic and corrosive hazardous waste
- The piping installation did not have any asbestos detected, but had high levels of magnesium (however, magnesium is not a hazardous toxic metal) and was characterized as a non-hazardous solid.

Drum/Container Removal, Transport, and Disposal

On the basis of the drum/container inspection inventory, sampling and categorization, budget availability, and conversations with Museum staff on prioritization of items to be removed, the following drums/containers were selected for offsite disposal/recycling:

- Drum IDs 1-26 – 55-gallon drums of grease
- Drum IDs 27-87 – 5-gallon containers of grease
- Drum IDs 89, 97, 114, 116, and 118 through 124 – 55-gallon drums containing waste oil
- Drum IDs 96, 112, and 117 – 55-gallon drums containing antifreeze
- Drum IDs 103 and 104 – 55-gallon drums containing crushed oil filters
- Drum IDs 107 – 111, 115, and 120 -55-gallon drums containing flammable liquids
- Drum ID 105 – 55-gallon drum containing dry paint
- Drum ID 106 – 55-gallon drum containing miscellaneous solids
- Drum ID 113 – 55-gallon drum containing alkaline cleaning solution.

On June 24, 2005, MACTEC with assistance from NCC, coordinated the removal and offsite disposal of the above referenced drums/containers from the site. In addition, 13 empty drums were also removed from the site. The drums/containers were loaded onto trucks provided by Envirosolve LLC and transported as hazardous or non-hazardous waste under manifest to one of two disposal facilities as detailed on the attached manifests (Attachment 3). The drums and containers of grease, the waste oil drums, the empty drums, the waste antifreeze drums, and the drums containing the crushed oil filters were shipped as non-hazardous waste to Envirosolve's disposal facility in Tulsa, Oklahoma. The remaining materials (flammable liquids, dried paint, miscellaneous solids, and alkaline cleaning solution) were manifested as hazardous waste and transported to Ash Grove Cement Company disposal facility in Chanuto, Kansas.

**CONCLUSIONS**

A total of 127 drum/containers were identified as a result of the drum inventory activities. The containers ranged in size from 5 to 300 gallons with the majority of the container contents being grease or oil. Several of the containers were determined to be empty.

On the basis of the drum categorization activities it was determined that two drums required further characterization to evaluate offsite disposal options. In addition, at the request of the Museum, samples were also collected of piping installation and from a container of water softener to determine if these

items possessed hazardous properties. Results of the analysis indicated that Drum 94 can be characterized as an inorganic non-hazardous material, that Drum 113 and the contents of the water softener could be characterized as an inorganic basic and corrosive waste. The piping installation had no asbestos detected but had high levels of magnesium (a non-hazardous metal) and is characterized as a non-hazardous solid.

A total of 113 drums/containers containing waste and 13 empty drums were properly transported and disposed of under manifest to two offsite disposal facilities. Fourteen containers containing waste remain at the facility. In addition, over 100 one-pint to one-gallon cans of paint, lacquers, and thinner remain stored in the carpentry, maintenance, and storage shops. The museum has also requested disposal of these materials.

MACTEC appreciates the opportunity to provide environmental consulting services for NDEP, Bureau of Corrective Actions. If you should have any questions, please call either of the undersigned at (707) 793-3800.

Sincerely,

**MACTEC Engineering and Consulting, Inc**

Gary A. Lieberman
Senior Geologist

Ron Leiken (by VLH w/permission)

Ron Leiken, CEM
Principal Environmental Scientist
Certified Environmental Manager, Number 1798
Expiration Date: 3/8/06

In accordance with Nevada Administrative Code 459.97285,

> *I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state, and local statutes, regulations, and ordinances.*

GAL;RL;klb/KB61159.DOC-Henderson

Attachments:
1 – Drum Inventory Sheet
2 – Laboratory Analytical Reports
3 – Signed Manifests

**ATTACHMENT 1**

**DRUM INVENTORY SHEET**

| Project Name / #: Ely R/R /4400051035 | | | | | Date: 5-10-05 | | | Name: Justin Thompson | |
|---|---|---|---|---|---|---|---|---|---|
| Drum ID | Drum Markings | Drum Size | Percent Full | Color of Contents | Contents | Corrosive | Shippable | Location | Comments |
| 1- | Texaco Grease | 55 gal | 100% | Brown | Grease | No | Yes | RIP Bldg | Product reusable |
| 26 | 904 | | | | | | | | |
| 27- | Texaco | 5 gal | 100% | Brown | Grease | No | Yes | RIP Bldg | Reusable, Contains |
| 87 | Crater Grease | 35 lb | | | | | * Not labeled | | 1,1,1-Trichloroethane |
| 88 | None | 55 gal | 100% | Brown/clr | Kerosene | No | Yes | RIP Bldg | |
| 89 | None | 55 gal | 5% | Brown | Waste Oil | No | Yes | RIP Bldg | Thick |
| 90 | Amoco Cylinder | 55 gal | 75% | Brown | Oil | No | Yes | RIP Bldg | |
| | Oil 145D | | | | | | | | |
| 91 | Union Steam | 55 gal | 100% | Brown | oil/lube | No | Yes | RIP Bldg | |
| | Cylinder Lube | | | | | | | | |
| 92 | Lrg Gen Tank | ~300 gal | 0% | n/a | n/a | No | Yes | RIP Bldg | Near small rail cart |
| 93 | Lrg Gen Tank | ~300 gal | 0% | n/a | n/a | No | Yes | RIP Bldg | Near small rail cart |
| 94 | Wtr Treatment | 55 gal | 60% | Brown | Tar-like | No | No-overpack container | Tower | |
| | Solid | | | | | | | | |
| 95 | Lube Oil | 55 gal | 100% | Yellow | Oil | No | Yes | Engrs/Drafters Bldg | Re-usable |
| | 80-90W | | | | | | | | |
| 96 | Antifreeze | 55 gal | 25% | Lt. Yellow | Antifreeze | No | Yes | Engs/Drafters Bldg | |
| 97 | Waste Oil | 55 gal | 50% | Brown | Oil | No | Yes | Engrs/Drafters Bldg | |
| 98 | None | 55 gal | 20% | Rust color | Oil & water | No | Yes | Engrs/Drafters Bldg | |
| 99 | Engine Oil | ~300 gal | 100% | unk | unk | No | ~~Yes~~ No | East Yard | |
| | Tank | | | | | | | | |
| 100 | Waste Oil & | ~300 gal | 100% | unk | unk | No | No | East Yard | |
| | Water Tank | | | | | | | | |
| 101 | Empty Tank | ~300 gal | 0% | n/a | n/a | n/a | | East Yard | |

| Project Name / #: Ely R/R / 4400051035 | | | | | Date: 5-10-05 | | | Name: Justin Thompson | |
|---|---|---|---|---|---|---|---|---|---|
| Drum ID | Drum Markings | Drum Size | Percent Full | Color of Contents | Contents | Corrosive | Shippable | Location | Comments |
| 121 | None | 55gal | 35% | Brown | Waste Oil | No | Yes | Maint Bldg Boneyard | |
| 122 | Not-applicable | 55gal | 50% | Brown | Waste Oil | No | Yes | Maint Bldg Boneyard | |
| 123 | None | 55gal | 2% | Brown | Waste Oil | No | Yes | Maint Bldg Boneyard | |
| 124 | Not-Applicable | 55gal | 20% | Brown | Waste Oil | No | Yes | Maint Bldg Boneyard | |
| 125 | None | 55gal | 5% | Clear | Water | No | Yes | Maint Bldg Boneyard | |
| 126 | None | 55gal | 50% | Brown | Grease/Oil | No | No - needs drum ring | Maint Bldg Boneyard | |
| ~~127~~ | | | | | | | | | |
| 127 | Ex Hec Super Cylinder Oil | 55gal | 50% | Drk Grey | Oil | No | Yes | RR Bldg | |

3/3

# MACTEC
## Sample Collection Log

Project Name Ely Rail Road Drum Characterization

Project Location Ely, NV

Recorder Name Justin Thompson

| Work Area | Sample Location | Sample ID | Date | Time | % Visible Bullet/Shot Coverage | Bullets in sample (Y/N) | Depth | Soil Type | Container Used | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| RIP Bldg | Drum Staging | DRUM 88 | 5-10-05 | 1115 | n/a | n/a | DRUM | ~~500ml Poly~~ n/a | ~~500ml Poly~~ 500ml Poly | |
| | RIP BLDG | DRUM 89 | | 1130 | | | | | | |
| | TOWER | DRUM 94 | | 1240 | | | | | | " |
| | ENGR BLDG | DRUM 95 | | 1300 | | | | | | |
| | ENGR BLDG | DRUM 97 | | 1305 | | | | | | |
| Outside RIP | DRUM | DRUM 102 | | 1315 | | | | | | SW Corner of RIP |
| MAINT | BONEYARD | DRUM 113 | 5-10-05 | 1400 | | | | | | |
| | METAL WORKING | INSUL | | 1420 | | | Loose | | | |
| | | SOFTNER | | 1430 | n/a | n/a | Loose | n/a | 500ml poly | |

# ATTACHMENT 2

# LABORATORY ANALYTICAL REPORTS

Del Mar Analytical

17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite , Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 80 n Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

# LABORATORY REPORT

Prepared For: Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
Petaluma, CA 94954
Attention: Gary Lieberman

Project:4400051035

Sampled: 05/10/05
Received: 05/13/05
Issued: 06/07/05 09:15

NELAP #01109CA Nevada #AZ907

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, 1 page, is included and is an integral part of this report.*
*This entire report was reviewed and approved for release.*

## CASE NARRATIVE

| LABORATORY ID | CLIENT ID | MATRIX |
|---|---|---|
| POE0354-01 | DRUM 94 | Sludge |
| POE0354-02 | DRUM 113 | Solid |
| POE0354-03 | INSUL | Solid |
| POE0354-04 | SOFTNER | Solid |

SAMPLE RECEIPT: Samples were received intact, at 4°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: N-1 - Samples required dilution of 1000x.

eviewed By:

Karen Maxwell

Checked

**Del Mar Analytical - Phoenix**
Karen Maxwell For Linda Eshelman
Project Manager

Del Mar Analytical

17461Derian Ave., Sui[illegible]0, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
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Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
'etaluma, CA 94954
ttention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## INORGANICS

| Analyte | Method | Batch | Reporting Limit | Sample Result | Dilution Factor | Date Extracted | Date Analyzed | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|
| **mple ID: POE0354-02 (DRUM 113 - Solid)** | | | | | | | | |
| **Reporting Units: mg/kg** | | | | | | | | |
| **Alkalinity as CaCO3** | SM2320B Mod. | P5E2101 | 250 | **640000** | 1 | 5/20/2005 | 5/20/2005 | |
| loride | EPA 300.0 MOD. | P5E1614 | 5000 | ND | 1000 | 5/16/2005 | 5/16/2005 | N-1, T3 |
| **ample ID: POE0354-02 (DRUM 113 - Solid)** | | | | | | | | |
| **Reporting Units: pH Units** | | | | | | | | |
| [ | 150.1 | P5E1612 | NA | **13.7** | 1 | 5/16/2005 | 5/16/2005 | |
| **mp. at time of pH Analysis (°C)** | 150.1 | P5E1612 | NA | **19.4** | 1 | 5/16/2005 | 5/16/2005 | |
| **Sample ID: POE0354-03 (INSUL - Solid)** | | | | | | | | |
| **Reporting Units: mg/kg** | | | | | | | | |
| **kalinity as CaCO3** | SM2320B Mod. | P5E2101 | 250 | **220000** | 1 | 5/20/2005 | 5/20/2005 | |
| **Chloride** | EPA 300.0 MOD. | P5E1614 | 5.0 | **97** | 1 | 5/16/2005 | 5/16/2005 | T3 |
| **mple ID: POE0354-04 (SOFTNER - Solid)** | | | | | | | | |
| **Reporting Units: mg/kg** | | | | | | | | |
| **Alkalinity as CaCO3** | SM2320B Mod. | P5E2101 | 250 | **380000** | 1 | 5/20/2005 | 5/20/2005 | |
| loride | EPA 300.0 MOD. | P5E1614 | 5000 | ND | 1000 | 5/16/2005 | 5/16/2005 | N-1, T3 |
| **ample ID: POE0354-04 (SOFTNER - Solid)** | | | | | | | | |
| **Reporting Units: pH Units** | | | | | | | | |
| [ | 150.1 | P5E1612 | NA | **9.77** | 1 | 5/16/2005 | 5/16/2005 | |
| **mp. at time of pH Analysis (°C)** | 150.1 | P5E1612 | NA | **19.6** | 1 | 5/16/2005 | 5/16/2005 | |

**l Mar Analytical - Phoenix**
uren Maxwell For Linda Eshelman
Project Manager

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Jacobs Engineering - Petaluma
5341 Old Redwood Hwy #300
Petaluma, CA 94954
Attention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

# TCLP EXTRACTION FOR METALS

| Analyte | Method | Batch | Extraction Start Date | Extraction End Date | Data Qualifiers |
|---|---|---|---|---|---|
| **Sample ID: POE0354-01 (DRUM 94 - Sludge)** | | | | | |
| TCLP Extraction | EPA 1311 | P5E1807 | 5/17/2005 | 5/18/2005 | |
| **Sample ID: POE0354-02 (DRUM 113 - Solid)** | | | | | |
| TCLP Extraction | EPA 1311 | P5E1807 | 5/17/2005 | 5/18/2005 | |
| **Sample ID: POE0354-04 (SOFTNER - Solid)** | | | | | |
| TCLP Extraction | EPA 1311 | P5E1807 | 5/17/2005 | 5/18/2005 | T5 |

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Lauren Maxwell For Linda Eshelman
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Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
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Attention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## METHOD BLANK/QC DATA

## TCLP METALS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P5E1907 Extracted: 05/19/05** | | | | | | | | | | |
| **Blank Analyzed: 05/19/2005 (P5E1907-BLK1)** | | | | | | | | | | |
| TCLP Silver | ND | 0.0050 | mg/l | | | | | | | |
| TCLP Selenium | ND | 0.050 | mg/l | | | | | | | |
| TCLP Lead | ND | 0.050 | mg/l | | | | | | | |
| TCLP Chromium | ND | 0.010 | mg/l | | | | | | | |
| TCLP Cadmium | ND | 0.0050 | mg/l | | | | | | | |
| TCLP Arsenic | ND | 0.050 | mg/l | | | | | | | |
| TCLP Barium | ND | 0.50 | mg/l | | | | | | | |
| **Blank Analyzed: 05/19/2005 (P5E1907-BLK2)** | | | | | | | | | | |
| TCLP Lead | ND | 0.25 | mg/l | | | | | | | |
| TCLP Chromium | ND | 0.050 | mg/l | | | | | | | |
| TCLP Silver | ND | 0.025 | mg/l | | | | | | | |
| TCLP Selenium | ND | 0.25 | mg/l | | | | | | | |
| TCLP Barium | ND | 2.5 | mg/l | | | | | | | |
| TCLP Arsenic | ND | 0.25 | mg/l | | | | | | | |
| TCLP Cadmium | ND | 0.025 | mg/l | | | | | | | |
| **Blank Analyzed: 05/19/2005 (P5E1907-BLK3)** | | | | | | | | | | |
| TCLP Lead | ND | 0.25 | mg/l | | | | | | | |
| TCLP Selenium | ND | 0.25 | mg/l | | | | | | | |
| TCLP Chromium | ND | 0.050 | mg/l | | | | | | | |
| TCLP Cadmium | ND | 0.025 | mg/l | | | | | | | |
| TCLP Barium | ND | 2.5 | mg/l | | | | | | | |
| TCLP Arsenic | ND | 0.25 | mg/l | | | | | | | |
| TCLP Silver | ND | 0.025 | mg/l | | | | | | | |
| **LCS Analyzed: 05/19/2005 (P5E1907-BS1)** | | | | | | | | | | |
| TCLP Arsenic | 1.03 | 0.050 | mg/l | 1.00 | | 103 | 80-120 | | | |
| TCLP Barium | 1.00 | 0.50 | mg/l | 1.00 | | 100 | 80-120 | | | |
| TCLP Cadmium | 0.966 | 0.0050 | mg/l | 1.00 | | 97 | 80-120 | | | |
| TCLP Chromium | 0.991 | 0.010 | mg/l | 1.00 | | 99 | 80-120 | | | |
| TCLP Lead | 0.938 | 0.050 | mg/l | 1.00 | | 94 | 80-120 | | | |
| TCLP Selenium | 0.959 | 0.050 | mg/l | 1.00 | | 96 | 80-120 | | | |
| TCLP Silver | 0.0509 | 0.0050 | mg/l | 0.0500 | | 102 | 80-120 | | | |

**Del Mar Analytical - Phoenix**
Lauren Maxwell For Linda Eshelman
Project Manager

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Mactec E&C - Petaluma
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ttention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## METHOD BLANK/QC DATA

## TCLP METALS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P5E2013 Extracted: 05/20/05** | | | | | | | | | | |
| **Blank Analyzed: 05/20/2005 (P5E2013-BLK2)** | | | | | | | | | | |
| TCLP Mercury | ND | 0.0020 | mg/l | | | | | | | |
| **Blank Analyzed: 05/20/2005 (P5E2013-BLK3)** | | | | | | | | | | |
| TCLP Mercury | ND | 0.0020 | mg/l | | | | | | | |
| **LCS Analyzed: 05/20/2005 (P5E2013-BS1)** | | | | | | | | | | |
| TCLP Mercury | 0.0773 | 0.0020 | mg/l | 0.0800 | | 97 | 85-115 | | | |
| **LCS Dup Analyzed: 05/20/2005 (P5E2013-BSD1)** | | | | | | | | | | |
| TCLP Mercury | 0.0788 | 0.0020 | mg/l | 0.0800 | | 98 | 85-115 | 2 | 20 | |
| **Matrix Spike Analyzed: 05/20/2005 (P5E2013-MS1)** | | | | | **Source: POE0350-01** | | | | | |
| TCLP Mercury | 0.00937 | 0.0020 | mg/l | 0.0100 | ND | 94 | 85-115 | | | |
| **Matrix Spike Dup Analyzed: 05/20/2005 (P5E2013-MSD1)** | | | | | **Source: POE0350-01** | | | | | |
| TCLP Mercury | 0.00915 | 0.0020 | mg/l | 0.0100 | ND | 92 | 85-115 | 2 | 20 | |
| **Batch: P5F0201 Extracted: 06/02/05** | | | | | | | | | | |
| **Blank Analyzed: 06/02/2005 (P5F0201-BLK1)** | | | | | | | | | | |
| TCLP Mercury | ND | 0.00020 | mg/l | | | | | | | |
| **Blank Analyzed: 06/02/2005 (P5F0201-BLK2)** | | | | | | | | | | |
| TCLP Mercury | ND | 0.00020 | mg/l | | | | | | | |
| **LCS Analyzed: 06/02/2005 (P5F0201-BS1)** | | | | | | | | | | |
| TCLP Mercury | 0.0824 | 0.0020 | mg/l | 0.0800 | | 103 | 85-115 | | | |

**Del Mar Analytical - Phoenix**
Lauren Maxwell For Linda Eshelman
Project Manager

Del Mar Analytical

17461Derian Ave., Suit[illegible]0, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., S[illegible] Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 80[illegible]an Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
etaluma, CA 94954
ttention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## METHOD BLANK/QC DATA

## INORGANICS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P5E1612 Extracted: 05/16/05** | | | | | | | | | | |
| **Duplicate Analyzed: 05/16/2005 (P5E1612-DUP1)** | | | | | **Source: POE0354-02** | | | | | |
| pH | 13.7 | NA | pH Units | | 13.7 | | | 0 | 10 | |
| **Reference Analyzed: 05/16/2005 (P5E1612-SRM1)** | | | | | | | | | | |
| pH | 7.00 | NA | pH Units | 7.00 | | 100 | 99-101 | | | |
| **Batch: P5E1614 Extracted: 05/16/05** | | | | | | | | | | |
| **Blank Analyzed: 05/16/2005 (P5E1614-BLK1)** | | | | | | | | | | |
| Chloride | ND | 0.50 | mg/kg | | | | | | | |
| **LCS Analyzed: 05/16/2005 (P5E1614-BS1)** | | | | | | | | | | |
| Chloride | 4.95 | 0.50 | mg/kg | 5.00 | | 99 | 90-110 | | | |
| **LCS Dup Analyzed: 05/16/2005 (P5E1614-BSD1)** | | | | | | | | | | |
| Chloride | 5.01 | 0.50 | mg/kg | 5.00 | | 100 | 90-110 | 1 | 20 | |
| **Matrix Spike Analyzed: 05/16/2005 (P5E1614-MS1)** | | | | | **Source: POE0281-03** | | | | | |
| Chloride | 56.6 | 5.0 | mg/kg | 50.0 | 4.3 | 105 | 80-120 | | | |
| **Matrix Spike Dup Analyzed: 05/16/2005 (P5E1614-MSD1)** | | | | | **Source: POE0281-03** | | | | | |
| Chloride | 55.3 | 5.0 | mg/kg | 50.0 | 4.3 | 102 | 80-120 | 2 | 20 | |
| **Batch: P5E2101 Extracted: 05/20/05** | | | | | | | | | | |
| **Blank Analyzed: 05/20/2005 (P5E2101-BLK1)** | | | | | | | | | | |
| Alkalinity as CaCO3 | ND | 5.0 | mg/kg | | | | | | | |

**Del Mar Analytical - Phoenix**
Karen Maxwell For Linda Eshelman
Project Manager

Del Mar Analytical

17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
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Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
Petaluma, CA 94954
Attention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## METHOD BLANK/QC DATA

## TCLP EXTRACTION FOR METALS

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Data Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch: P5E1807 Extracted: 05/17/05** | | | | | | | | | | |
| **Blank Analyzed: 05/18/2005 (P5E1807-BLK1)** | | | | | | | | | | |
| TCLP Extraction | ND | 0.050 | None | | | | | | | |
| **Blank Analyzed: 05/18/2005 (P5E1807-BLK2)** | | | | | | | | | | |
| TCLP Extraction | ND | 0.050 | None | | | | | | | |

**Del Mar Analytical - Phoenix**
Karen Maxwell For Linda Eshelman
Project Manager

Del Mar Analytical

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Mactec E&C - Petaluma
5341 Old Redwood Hwy #300
Petaluma, CA 94954
Attention: Gary Lieberman

Project ID: 4400051035

Report Number: POE0354

Sampled: 05/10/05
Received: 05/13/05

## Certification Summary

### Del Mar Analytical - Phoenix

| Method | Matrix | Nelac | Nevada |
|---|---|---|---|
| 150.1 | Soil | | |
| EPA 1311/6010B | Water | | X |
| EPA 1311/7470 | Water | | X |
| EPA 1311 | Soil | | X |
| EPA 300.0 MOD. | Soil | | N/A |
| EPA 6010B | Soil | N/A | X |
| SM2320B Mod. | Soil | N/A | N/A |

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.*

### Subcontracted Laboratories

**Fiberquant Analytical**

5025 S.33rd Street - Phoenix, AZ 85040

Analysis Performed: Asbestos By PLM

Samples: POE0354-03

Del Mar Analytical - Phoenix
Lauren Maxwell For Linda Eshelman
Project Manager

FIBERQUANT ANALYTICAL SERVICES

# Polarized Light Microscope (PLM) Analysis for Asbestos

**JobNumber:** 200503490

**Client:** DEL MAR ANALYTICAL

9830 S 51ST ST STE B120

PHOENIX, AZ 85044-0000

Office Phone: (480) 785-0043

FAX: (480) 785-0851

**# Samples:** 1 PLM **Rec:** 5/13/2005 **Method:** EPA 600/R-93/116 PLM analysis for asbestos in bulk smp

**Client Job:** POE0354 **PO Number:** **Routing Number:** -

**Report Date:** 5/16/2005 **Date Analyzed:** 5/16/2005

**Method and Analysis Information:** **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA, NESHAP and OSHA regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber analysis and identification is the EPA Method 600/R-93/116. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. We recommend a hydro-separation technique for such samples.

Vermiculite-containing samples may contain trace amounts of asbestiform amphibole that may or may not be detected during routine PLM analysis. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative

## *PLM Analysis Details*

**Job Number:** **200503490** POE0354

**Sample** POE0354-03 **Lab Number** 2005-03490- 1 **Sampled:** 5/10/2005 **Condition:** acceptable

**Analyzed By** LWJ 5/16/2005 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

**Homogeneous** No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

**Non-Fibrous Components (in approx. decreasing order):** powder, ,

**Layers**

| # | Layer Type | % | Color | Friability |
|---|---|---|---|---|
| 1 | insulation | 80 | White | 3 |
| 2 | insulation | 20 | Gray | 3 |
| | **Total %** | 100 | **Average %** | |

**Percents of Each Fiber**

| Fib 1 | Fib 2 | Fib 3 | Fib 4 | Fib 5 | Fib 6 |
|---|---|---|---|---|---|
| 2-5% | n.d. | - | - | - | - |
| 2-5% | >1-2% | - | - | - | - |
| 2-5% | <=1% | - | - | - | - |
| **Fiber Identification:** | synthetic fiber (extr | glass fiber | | | |

**Fibers**

| | | Color | Mrph | Iso | Pleo | Bi | Elg | Ext |
|---|---|---|---|---|---|---|---|---|
| 1 | synthetic fiber (extruded) | W | E | N | N | H | + | P |
| 2 | glass fiber | CL | D | Y | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |

**Refractive Index Determinations**

| Oil | Col Par | Col Per | RI Par | RI Per |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Sample Analytical Note**

Procedure: tweased apart using forceps.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be + or -; Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

**Analyst:** LILIAN W. JIANG

Printed: 16-May-05

Original Print Date: 16-May-05

Larry S. Pierce, Approved Accreditation Signatory

Del Mar Analytical

17461 Derian Ave, Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr. Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851
2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

# SUBCONTRACT ORDER - PROJECT # POE0354

**SENDING LABORATORY:**

Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman

**RECEIVING LABORATORY:**

Fiberquant Analytical
5025 S.33rd Street
Phoenix, AZ 85040
Phone :(602) 276-6139
Fax: (602) 276-4558

**Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____**

| Analysis | Expiration | Comments |
|---|---|---|
| **Sample ID: POE0354-03 Solid** | **Sampled: 05/10/05 14:20** | **Vegas samples** |
| Asbestos By PLM-O | 05/12/05 14:20 | Fiberquant |

**Containers Supplied:**
8 oz Jar (POE0354-03B)

**SAMPLE INTEGRITY:**

All containers intact: ☐ Yes ☐ No Sample labels/COC agree: ☐ Yes ☐ No Samples Received On Ice:: ☐ Yes ☐ No
Custody Seals Present: ☐ Yes ☐ No Samples Preserved Properly: ☐ Yes ☐ No Samples Received at (temp): _____

| Released By | Date | Time | Received By | Date | Time |
|---|---|---|---|---|---|
| [signature] | 5-BOS | 1348 | [signature] | 5-13-05 | 1348 |
| [signature] | 5-13-05 | 1406 | [signature] | 5-13-05 | 14:06 |

# Del Mar Analytical

LOE 0044; PJE 654

Cooley
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043
2520 E. Sunset Rd., Suite 3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

## CHAIN OF CUSTODY FORM

Page 1 of 1

| Client Name/Address: | Project/PO Number: |
|---|---|
| MACTEC<br>5341 Old Redwood Hwy #300<br>Petaluma, CA 94954 | 4400051035 |
| **Project Manager:** Gary Lieberman<br>**Sampler:** Justin Thompson | **Phone Number:** 707-793-3800<br>**Fax Number:** 707-793-3900 |

| Sample Description | Sample Matrix | Container Type | # of Cont. | Sampling Date | Sampling Time | Preservatives | Analysis Required: FULL | Soil / Liquids | Corrosivity | Asbestos | | | | | | Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRUM 94 | soil | 500ml poly | 1 | 5-10-05 | 1240 | none | X | | | | | | | | | PO 4500351401 |
| DRUM 113 | soil | " | 1 | " | 1400 | " | X | X | X | | | | | | | -02 |
| INSULA | " | " | 1 | " | 1420 | " | | X | | X | | | | | | -03 |
| SOFTNER | " | " | 1 | " | 1430 | " | X | X | X | | | | | | | -04 |

| Relinquished By: | Date /Time: | Received by: | Date /Time: | Turnaround Time: (Check) | |
|---|---|---|---|---|---|
| Justin Thompson | 5-12-05 1317 | | 5-17-05 1317 | same day ____ | 72 hours ____ |
| | | | | 24 hours ____ | 5 days ____ |
| Relinquished By: | Date /Time: | Received by: | Date /Time: | 48 hours ____ | normal X |
| | 5-17-05 1700 | CA O/N | 5-17-05 1700 | | |
| Relinquished By: | Date /Time: | Received in Lab by: | Date /Time: | Sample Integrity: (Check) | |
| | 5/13/5 | | 5/13/5 0810 | intact ✓ | on ice 18.6° |

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Samples will be disposed of after 30 days.

CA O/N

3.5

**ATTACHMENT 3**

**SIGNED MANIFESTS**

PRINTED ON RECYCLED PAPER

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NVR000080267 Manifest Document No. 062745

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
NO. NEVADA RAILWAY
1100 AVE "A"
ELY, NV 89315

4. Generator's Phone (775) 289-2085

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
Envirosolve, LLC

6. US EPA ID Number
KD 987084068

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ASH GROVE CEMENT CO.
1801 NORTH SANTA FE RD
CHANUTO, KS 66720

10. US EPA ID Number
KSD032033318

G. State Facility's ID

H. Facility's Phone

GENERATOR

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. WASTE, Flammable liquids, n.o.s. (KEROSENE), 3, UN1993, PG III | X | 7 | DM | 385 | G | D001 |
| b. WASTE, Non-RCRA/NON-DOT-SOLID (DRIED PAINT) | | 1 | DM | 55 | G | N/A |
| c. WASTE, Non-RCRA/Non-DOT Solid (TRASH & DEBRIS) 8, UN3263, PG III | | 1 | DM | 55 | G | N/A |
| d. WASTE, Corrosive solid, basic, inorganic, n.o.s. (ALKALINE CLEANER) | X | 1 | DM | 55 | G | N/A |

J. Additional Descriptions for Materials Listed Above
11a) APPR# AG1346; 11b) APPR# 03-05488-915-16; 11c) APPR# 03-05488-915-16; 11d) APPR# 03-05488-908-06

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MARK S BASSETT — Signature: [signature] — Month Day Year: 06 24 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: MIKE HYATT — Signature: [signature] — Month Day Year: 06 24 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

# NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NRV000008267 | Manifest Document No. 06245 | 2. Page 1 of 2

3. Generator's Name and Mailing Address
NO. NEVADA RAILWAY
1100 AVE "A"; ELY, NV 89315
4. Generator's Phone (775) 289-2085

5. Transporter 1 Company Name: ENVIROSOLVE, LLC | 6. US EPA ID Number: OKD987084068 | A. Transporter's Phone: 918-587-9664

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
ENVIROSOLVE, LLC
2131 SOUTH ROSEDALE
TULSA, OK 74107
10. US EPA ID Number: OKD987084068
C. Facility's Phone: 918-587-9664

GENERATOR

| 11. Waste Shipping Name and Description | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol |
|---|---|---|---|---|
| a. WASTE, Non-RCRA/Non-DOT SOLID-GREASE | 27 | DM | 1485 | G |
| b. WASTE, Non-RCRA/Non-DOT SOLID - (CRATER GREASE) | 60 | DF | 300 | G |
| c. WASTE, ANTIFREEZE | 3 | DM | 165 | G |
| d. WASTE, Non-RCRA/Non-DOT Solid-Crushed & Drained POL FILTERS | 2 | DM | 110 | G |

D. Additional Descriptions for Materials Listed Above
11a) APPR# 03-05488-915-10; 11b) APPR# 03-05488-915-10;
11c) Ø APPR# 03-05488-911-01; 11d) Ø APPR# 03-05488-915-0

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Mark Bassett | Signature: Mark Bassett | Month 06 Day 12 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Mike Hyatt | Signature: Mike Hyatt | Month 06 Day 12 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Year

TO REORDER CALL 1-800-327-6868

ORIGINAL - RETURN TO GENERATOR

LEO DROZDOFF, *Administrator*

(775) 687-4670
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*Facsimile 687-5856*

Water Quality Planning
Water Pollution Control
*Facsimile 687-4684*

Mining Regulation & Reclamation
*Facsimile 684-5259*

State of Nevada
KENNY C. GUINN
*Governor*

ALLEN BIAGGI, *Director*

Air Pollution Control
Air Quality Planning
*Facsimile 687-6396*

Waste Management
Federal Facilities

Corrective Actions
*Facsimile 687-8335*
NDEP.nv.gov

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
**DIVISION OF ENVIRONMENTAL PROTECTION**
333 W. Nye Lane, Room 138
Carson City, Nevada 89706

April 18, 2005

Mr. Daniel Burns
MACTEC Engineering & Consulting, Inc.
6280 South Valley VIew Blvd., Suite #722
Las Vegas, NV 89118

**re: Scope of Work Approval, Northern Nevada Railway Museum in Ely, NV**

Dear Mr. Burns,

The Nevada Division of Environmental Protection has received your Scope of Work for the Northern Nevada Railway Museum Brownfields Project for the purposes of categorizing and identifying several drums located at that property. While we agree with the narrative provided for the work to be performed, we are unable to provide funding as detailed in the budget inventory. Due to the nature of the project, where costs are likely to depend on the results of initial identification activities, we cannot project what the laboratory analytical costs will ultimately be.

In order to serve the best interests of the program and the site owner, we have decided to approve a reasonable project budget, based on our experience with these types of projects, of **$35,000** to include the field assessment, laboratory analyses, and drum removal. Rates for equipment and costs should comply with those provided in the Scope of Work. We will be open to re-assessing the project budget based on considerations of field findings. The start date for the project shall be considered to be the date of this correspondence.

If you have any questions, please feel free to contact me at (775) 687-9384.

Sincerely,

Scott Smale
Bureau of Corrective Actions

cc: (w/attached SOW) Keli Stoeffler, BCA
Shanda Sergent, OFPM

MACTEC



April 1, 2005

Mr. Scott Smale
Brownfields/State Response
Bureau of Corrective Actions
Nevada Division of Environmental Protection
333 W. Nye Lane, Room 138
Carson City, Nevada 89706

**SCOPE OF WORK DEVELOPMENT**
**NORTHERN NEVADA RAILWAY MUSEUM**
**BROWNFIELDS PROJECT**
**11th STREET and AVENUE A**
**ELY, NEVADA**

**PROP05LVEG.10**

Dear Mr. Smale:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to present this proposal and not-to-exceed budget to prepare and implement drum characterization, sampling and removal activities for the Nevada Division of Environmental Protection (NDEP) Bureau of Corrective Actions, Brownfields Program.

The Subject Property, a former operating rail yard constructed in early 1900's to serve the local copper mining operations, was active until mining operations ceased in the early 1980's. The property currently belongs to the White Pine Historical Railroad Foundation (dba **Nevada Northern Railway Museum**), and is used for tourist excursions and the restoration and preservation of the Nevada Northern Railway historic facilities, yards, and rail collection. The facility is comprised of the depot, roundhouse, coal chute, yards and a complex of carpentry, fabrication, maintenance, and storage shops.

This proposal has been prepared as requested by NDEP on March 25, 2005. During a scoping meeting held on November 8, 2004 for another Brownfields Project (Old White Pine County Landfill), a brief tour of the railway museum facilities was conducted by NDEP and MACTEC representatives. Based upon the tour, this proposal includes the levels of effort and cost estimates for following Scope of Services:

- Document Preparation
- Field Activities
- Drum Content Analyses
- Drum Removal, Transport and Disposal
- Submittals

**SCOPE OF WORK TASKS**

**Document Preparation**

The objective of this Task is to develop and communicate the procedures for implementing the field portion of the Scope of Work Tasks, which consists primarily of preparing a Health and Safety Plan. A Standard Operating Procedure (SOP) for drum sampling (SOP #2009, dated 11/16/1994, Revision # 0) has been

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6280 South Valley View Blvd., Suite #722 • Las Vegas, NV 89118
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developed by the USEPA Environmental Response Team (ERT) and will be used as the basis for the completion of the field activities.

**Field Activities**

Field activities, consisting of Drum Inspection, Staging, Sampling, and Categorization will follow the USEPA ERT SOP (#2009). This will include use of photoionization device (PID), flame ionization device (FID), lower explosive limit/oxygen (LEL/O2, and radiation detection meters, along with chemical classification field testing kits.

Based upon preliminary field categorization, drums will either be left in place for overpacking, or staged for bulking and/or compositing with like contents.

**Drum Content Analyses**

It is anticipated that forty to fifty drums will need to be addressed for this project. Samples will be collected from each drum that is to be overpacked. From drums that are to be bulked and/or composited, representative samples will be collected and submitted to an analytical laboratory to verify the field categorization findings for the purpose of disposal. It is anticipated that samples will be collected and analyzed for Ignitability (1010) and one or more of the following RCRA Hazardous Waste Characterization analyses: pH (9040/9045), total cyanide (9010), total sulfide (9030), TCLP Extraction/Leachate Analyses (1311/6010/8270), VOCs (8260), SVOCs (8270), Chlorinated Pesticides and PCBs (8081/8082), Chlorinated Herbicides (8151), and RCRA (8) Metals (200.7/6010).

In addition to the RCRA Hazardous Waste Characterization analyses, samples may be submitted for one or more of the following analyses: Organophosphorous pesticides (8141), Chlorinated Hydrocarbons (8021), polynuclear aromatic hydrocarbons (8310), total petroleum hydrocarbons (8015) and total residual petroleum hydrocarbon (TRPH) (Method 418.1).

Sampling equipment (sampling thieves and coliwasas) and personal protective equipment will be placed in a drum(s) and included in the disposal as investigation-derived waste.

**Drum Removal, Transport and Disposal**

Drum removal, transport, and disposal will depend on the results of the Drum **Inspection, Staging, Sampling, Categorization and Analyses.**

**Submittals**

It is currently unknown if the Nevada Northern Railway Museum has an EPA ID Number. Therefore, for estimating purposes, it is assumed that a RCRA Subtitle C Site Identification Form – Initial Notification of Regulated Waste Activity (EPA Form 8700-12) will be prepared for signature by the appropriate Nevada Northern Railway Museum representative for submittal to the NDEP Bureau of Waste Management. Information presented on the form will be based upon the preliminary field categorization

findings.

Packaging, Removal, Transport, and Disposal activities will be evaluated and priced based upon the preliminary field categorization. Analytical laboratory results will be used to verify field characterization results and will be provided to the disposal facility for final acceptance approval and costing.

**SCHEDULE AND FEE**

MACTEC will perform the activities described above on a time and materials, not-to-exceed basis for a fee of $72,620.10. MACTEC's estimated fee is based on the following assumptions:

- No Level A or B personnel protection equipment is required.
- Field activities described herein are anticipated to occur the week of April 25, 2005.
- Due to Setaflash Ignitibility testing unit pricing ($7,000) and availability (4 weeks from order date), MACTEC will not conduct Setaflash Ignitibility testing in the field as specified by SOP #2009. Ignitibility testing will be accomplished by an analytical laboratory instead.
- No QA/QC Sampling, Level 3 or Level 4 data packages, or data validation is required for this project.
- Costs for drum contents handling, transport, and disposal are not included. These costs will be estimated based upon preliminary field categorization and finalized based upon laboratory analytical results.
- Unless otherwise specified by NDEP, field testing equipment specified in EPA ERT SOP #2009 that is purchased for this project will become the property of the State of Nevada Brownfields Program, or its designee. This equipment will be turned over to the NDEP Brownfields Program Coordinator, or designee upon completion of its use.

MACTEC appreciates the opportunity to provide environmental consulting services for NDEP, Bureau of Corrective Actions. If you should have any questions, please call either of the undersigned at (702) 251-5449 or (775) 888-9992, respectively.

Sincerely,

Daniel C. Burns, P.G., C.E.M.
Associate

Bruce L. Wilcer, R.G.
Bruce L. Wilcer, R.G
Principal
signed by JBR with permission

Attachments: Cost Sheet