SDMS DOCID# 1136178

Booth, 1997

ELKHORN RANCH, INC.
P.O. BOX 2164
JULIAN, CALIFORNIA 92036

TELEPHONE: (619) 765-2320 *FACSIMILE: (619) 765-2320*

APR 25 12 23 PM '97

April 15, 1997

JOHN MISLEH, DEPUTY CHIEF OF HMMD
DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 85261
SAN DIEGO, CA 92186-5261

RE: **HMMD File # H07938 - CASPIAN, INC., 4951 Ruffin Rd., San Diego, CA 92123; AND,**

***ELKHORN RANCH, INC. vs CASPIAN, INC.* (San Diego Superior Court Case No. 669230).**

Dear Mr. Misleh:

Attached are copies of:

(1) the letter dated October 13, 1993, sent by Thomas E. Montgomery, Deputy County Counsel, on behalf of the HMMD and San Diego County, to Robert A. Herndon, then attorney for Elkhorn Ranch, Inc., and Steven P. McDonald, then attorney for Caspian, Inc., with copies to Gary Stephany, Department of Health Services; Chuck Pryatel, Department of Health Services; and, Honorable Anthony Joseph, the Judge of the Superior Court who presided over the case of *ELKHORN RANCH, INC. vs CASPIAN, INC.* (San Diego Superior Court Case Number 669230) (the "Superior Court Case") [As you know, Judge Joseph, in October 1993, issued an injunction in the Superior Court Case (the "Injunction") prohibiting Caspian from closing in place four underground storage tanks (the "Tanks") which were (and, with regard to three of those four Tanks, are now) owned and used exclusively by Caspian. The Tanks are located on the property having the mailing address of 4951 Ruffin Road, San Diego, CA 92123, that is owned by Elkhorn and leased to Caspian under a ground lease (the "Property")];

(2) the "First Amendment to Ground Lease," dated January 31, 1994, that was duly signed by Cyrus A. Jaffari, on behalf of Caspian, as its President, and by H. Wills Booth, III, on behalf of Elkhorn, as its Vice-President (the "Amendment");

(3) your E-Mail memorandum dated November 18, 1996, addressed to "MPETER", regarding "Subject: CASPIAN -Reply", with copies to "jortiz, cpryat, pnneuba, rporte"; and,

(4) my letter to Mr. Jaffari, dated December 6, 1997.

Under the applicable underground storage tank laws and regulations, Elkhorn is, as the owner of the Property, ultimately responsible for the Tanks and any environmental problems and liability arising from Caspian's use of the Tanks, but the HMMD, in its interpretation of those laws and regulations, did not provide to Elkhorn those rights, remedies and protections that should be provided to Elkhorn because it bears the greater risks and obligations under those laws and regulations. Elkhorn was not allowed to participate in the most important administrative processes relating to the Tanks and relating to the HMMD's official actions that would result in major economic damages to the Property and Elkhorn's interests in the Property.

At most times before September 1993, the HMMD treated Elkhorn like a member of the general public and not as a party having a major interest in the HMMD's actions relating to Caspian and the Tanks. The HMMD did not give Elkhorn timely notice of any communications, proceedings or other information concerning Caspian's closure application. Elkhorn usually learned of the HMMD's administrative decisions long after they were made or after they were implemented.

To gather information about the status of the HMMD's actions on Caspian's application, Elkhorn, on several occasions, had to make a formal request for a file review for which an appointment would be granted 10-14 days later. Elkhorn spent considerable time and money to have the numerous documents comprising the HMMD's files relating to the Tanks and the various environmental enforcement actions brought against Caspian reviewed and copied several times. Elkhorn's efforts to protect its interests often were materially hindered because Elkhorn had to review the HMMD's files to retrieve information that, on many occasions, was in the hands of Caspian weeks before it was available to Elkhorn.

For a few months after Elkhorn's attorney send a letter to the HMMD stating Elkhorn's unequivocal objection to Caspian's application, the HMMD seemed to provide more timely information to Elkhorn. On a few occasions, however, certain persons at the HMMD were very courteous and helpful to Elkhorn's attorney. Elkhorn Board of Directors again extends its appreciation to those persons.

Then, on September 20, 1993, despite Elkhorn's repeated and unequivocal objections stated to the HMMD, both orally and in writing, the HMMD approved Caspian's application to close the Tanks in place. As unfortunate consequences of the exclusion of Elkhorn from the HMMD's administrative process, the HMMD and Caspian wasted considerable time and money proceeding under Caspian's plan and application to close the Tanks in place, and Elkhorn was required to spend considerable sums to file a lawsuit and obtain an injunction from the Superior Court to stop Caspian and the HMMD from materially damaging Elkhorn's interests in the Property.

In many communications with the principals and representatives of Elkhorn, the HMMD

promised to deal with the closure in place or removal of the Tanks according to the decision of Judge Joseph. Elkhorn's Directors believed those HMMD promises. While relying on the HMMD's promises, Elkhorn's Board of Directors decided against including the HMMD or the County as a defendant in the Superior Court Case and asking the Court to enjoin the HMMD from issuing a permit allowing Caspian to close the Tanks in place. The HMMD's promise is stated clearly in Mr. Montgomery's October 13, 1993 letter. Mr. Montgomery states on the second page of his October 13, 1993 letter:

> **HMMD will act in accordance with the terms of the closure permit if the Court determines that closure in place of the underground tanks may proceed. If the Court determines that the closure in place may not proceed, HMMD will then work with the appropriate party to bring the underground tanks into compliance with state law through other means. HMMD will take a 'wait and see' posture in this matter and does not believe that its involvement in the current litigation would serve any useful purpose.**

At a hearing regarding the injunction before Judge Joseph, Mr. Montgomery made similar statements to the Court on behalf of the HMMD. Apparently, copies of Mr. Montgomery's October 13, 1993 letter were sent to persons at the HMMD and were placed in an HMMD file relating to Caspian and the Tanks.

Judge Joseph decided in Elkhorn's favor and prohibited Caspian from closing the Tanks in place. Mr. Montgomery and everyone at the HMMD who was involved with this matter received immediate notice of Judge Joseph's decision. Certain persons at the HMMD acknowledged to Mr. Herndon and me that the HMMD had withdrawn the permit to close the Tanks in place and the Tanks would be removed. No one can claim that the regulators at the HMMD did not know of the HMMD's promise to Elkhorn and Caspian, Judge Joseph's decision to prohibit closure in place, and Elkhorn's intent to enforce the Court's order if any attempt was made to close the Tanks in place or by any means other that by removal .

In January 1994, Caspian and Elkhorn settled certain issues that were remaining unresolved pending the trial in the Superior Court Case, such as damages,. The terms of that settlement are recited in the Amendment. After the Amendment was signed by Caspian and Elkhorn, a copy of the Amendment was provided to Mr.Montgomery and to persons at the HMMD.

The injunction was confirmation by the Superior Court of California that Elkhorn's interests in the Property and rights under the ground lease are superior to any claim by Caspian that it has the right to close the Tanks in place. The terms of the injunction prohibiting the closure in place of the Tanks are clearly stated as the intent of both Caspian and Elkhorn in Paragraph 3 of the Amendment. In Paragraph 3, Caspian promised Elkhorn that it would not close the Tanks in place. Since October 1993, Caspian has been, and continues to be, bound by an enforceable obligation to

refrain from any effort to close the Tanks in place or by any means other than removal. Since October 1993, the management and others at the HMMD have had actual knowledge of the provisions of both the injunction and Paragraph 3 of the Amendment, which are similar.

Now, after three years, and with absolutely no notice to Elkhorn, the HMMD issued a permit and Caspian quickly closed in place three of the four original Tanks. When I asked certain persons at the HMMD why the HMMD issued the closure permit to Caspian, I was told that the HMMD apparently accepted an oral declaration by Caspian's attorney, and nothing more, that Elkhorn had given its approval for the Tanks to be closed in place. Your November 18, 1996 E-Mail memorandum makes reference to a meeting among Chuck Pryatel, Janet Ortiz, and Caspian's attorney. You state in the E-Mail memorandum:

> **"[A]t that time they told us that the property owner had agreed to the closure in place as long as it was not all cement slurry so they asked chuck if another solid was okay."**

It seems very strange that the HMMD proceeded with closing the Tanks in place based only on this attorney's unreliable and unconfirmed representation especially in light of the HMMD's level of active involvement with and knowledge of the Superior Court Case, the injunction issued by Judge Joseph, the HMMD's obligations stated in Mr. Montgomery's October 13, 1993 letter, and Elkhorn's sustained, ever-consistent and costly efforts to prevent the closure in place of any Tank on the Property. For the same reasons, how could anyone at the HMMD approve the closure in place of any Tank located on Elkhorn's Property without first making a minimal effort to do the right thing by placing a phone call to me or any other principal or representative of Elkhorn to confirm the attorney's representation that Elkhorn had reversed its long-standing position regarding the Tanks?

Someone has made a grave and costly error. Elkhorn's Directors trusted the HMMD's promises that nothing would be done with the Tanks that is inconsistent with the injunction issued by the Superior Court in 1993. Again the HMMD has made Elkhorn a victim of the HMMD's administration of the UST laws and regulations with, what appears to be, an intentional disregard for the rights and interests of Elkhorn, the owner of the property on which the Tanks are located. This time, the HMMD and Caspian obviously acted in concert to (1) breach the agreement established by and among the HMMD, Caspian and Elkhorn by Mr. Montgomery's October 13, 1993 letter; (2) breach Paragraph 3 of the Amendment; (3) prohibit Elkhorn from participating in the HMMD's administrative process that preceded the official action taken by the HMMD that caused Elkhorn to incur major economic damages to Elkhorn's interests in the Property; and, (4) deny due process to Elkhorn and a timely opportunity for Elkhorn to exercise its rights and remedies to protect its valuable interests in the Property by instituting another lawsuit against Caspian and the HMMD and again ask the Court for an injunction prohibiting the closure of the Tanks except by removal in accordance with the UST laws and regulations.

As you can see from my December 6, 1996 letter to Mr. Jaffari, the closure in place of the Tanks has sparked another dispute between Elkhorn and Caspian over their respective rights and obligations concerning the Tanks. All issues relating to that dispute were determined finally by the Court and agreed to in writing by the parties over three years ago. Now, Elkhorn must again spend valuable time and considerable sums of money to protect its interests in the Property and as an owner-responsible party. Why must Elkhorn again bear this burden?

Elkhorn's Directors are very interested in your response to the questions and issues raised in this letter and any other issues regarding what appears to be the illegal approval of the closure in place of the Tanks. By this letter, I formally request, on behalf of Elkhorn, that you prepare and provide to me, before May 1, 1997, a truthful and thorough written response to the questions raised in this letter regarding the alleged approval by Elkhorn of the closure in place of the Tanks and the other circumstances surrounding the HMMD's decision to permit Caspian to close the Tanks in place. If Caspian's attorney gave the HMMD any document that appears to be Elkhorn's written approval of the closure in place of the Tanks, please provide a copy of that document to me with your response.

As soon as I receive your written response, I will call you to schedule a time for me to meet with you and other persons at the HMMD to discuss, among other issues, the HMMD's view of Elkhorn's obligations and risks if the Tanks are removed after the expiration of the ground lease with Caspian. This may be the HMMD's last opportunity to cure some of the damages that have been and will be incurred by Elkhorn at the hands of Caspian in concert with the HMMD.

If you have a question about Elkhorn's request, please call me at (619) 765-2320.

Sincerely,
ELKHORN RANCH, INC.

By: H. WILLS BOOTH, III.
VICE-PRESIDENT

Enclosures

cc: James Giannopoulos
Chuck Prytel✓
Janet Ortiz
Peter Neubauer
Cyrus A. Jaffari

FIRST AMENDMENT TO GROUND LEASE

THIS FIRST AMENDMENT TO GROUND LEASE (this "Amendment") is made by and between Elkhorn Ranch, Inc., a California corporation ("Lessor"), AND Caspian, Inc., a California corporation ("Tenant"), to amend that certain ground lease dated July 1, 1975, made by and between Harry W. Booth, Jr., and Harriett P. Booth, as "Lessors" and predecessors-in-interest to Lessor, **AND** Chemical Energy of California, a California corporation as "Tenant" and predecessor-in-interest to Tenant.

1. **The Lease:** Lessor and Tenant hereby acknowledge that the provisions of the above-referenced ground lease dated July 1, 1975 (the Lease"), although the Lease was not duly executed by the parties, constitute the ground lease currently in effect between Lessor and Tenant by which Tenant leases from Lessor the leased premises described in paragraph 1 of the Lease (the "Premises"), and the current term of the Lease expires September 30, 1995. The parties hereby amend and clarify certain provisions of the Lease in accordance with the provisions of this Amendment while leaving in full force and effect the remaining provisions of the Lease.

2. **Lease Term:** Lessor will extend the term of the Lease for an additional term of five (5) years beginning October 1, 1995 in accordance with the provisions of the Lease, as amended. Lessor hereby grants to Tenant an option to extend the Lease term for an additional five (5) year period beginning October 1, 2000, under the same terms and conditions recited in the Lease as amended provided Tenant delivers to Lessor written notice of exercise of such option on or before July 1, 2000. At all times while the Lease is in effect, Tenant will also comply with all statutes, laws, ordinances, rules and regulations.

3. **Below Grade Processing Structures:** Tenant, upon the signing of this Amendment, will proceed in a timely manner with the removal of all "Below Grade Processing Structures" located on the Premises in accordance with the guidelines and time frame set forth by the Hazardous Materials Management Division of the San Diego County Department of Health Services ("HMMD") or other lead agency and dispose of all tanks, concrete and piping off the Premises.

4. **Gantry Crane:** Tenant will remove the gantry crane, foundation and related structures from the Premises. The crane does not have to be removed until the end of the new lease term or extended lease term, as the case may be, as a convenience to Tenant so that Tenant can optimize its use of the facility and reduce the cost of removal. Tenant shall have an additional ninety (90) days after the end of the new lease term (until December 30, 2000) or until December 30, 2005, if the option is exercised, to remove the crane, foundation and related structures. If the crane, etc. are not removed within that ninety-day period, Tenant will be considered a holdover tenant and Tenant would be obligated to pay rent at a holdover amount to be determined by Lessor.

5. **Removal of Improvements, Fixtures and Equipment:** Since Tenant has all rights, title and interest to all improvements, fixtures and equipment (i.e. above-grade tanks, associated plumbing, recycling equipment, additional cranes, buildings and slabs), Tenant again will have ninety (90) days after the end of the new lease term or until December 30, 2000 or until December 30, 2005, if the option is exercised, in which to remove these items. This procedure will be in accordance with the guidelines set forth by the HMMD or other lead agency. If this is not accomplished within this allotted time, the holdover obligation mentioned in paragraph 4, above will apply.

6. **Release of Approximately 1.80 Acres:** Upon the signing of this Amendment, Tenant will release from the Premises to Lessor that approximately 1.80 acre-portion of the Premises identified on the drawing attached hereto as Exhibit "A" (the "Excluded Part"). When Lessor prepares a more detailed description of the Premises and the Excluded Part, the parties will execute an amendment to the Lease that recites the more detailed description of the Premises and the Excluded Part. Lessor shall assume responsibility for and pay the property taxes for the Excluded Part.

7. **Rental Rate During New Lease Term:** The rental rate during the new lease term beginning October 1, 1995, will be formulated on a land value of six dollars ($6.00) per square foot. With that rate, the annual return will be eight percent (8%). The rent will be adjusted annually (on October 1, of each year) to reflect increases in the local CPI and those increases will neither be less than three percent (3%) nor exceed seven percent (7%). When Lessor determines the area of the Premises, less the Excluded Part per paragraph 6, above, the parties shall execute an amendment to the Lease that recites the monthly rent calculated in accordance with the provisions of this paragraph 7.

8. **Access to Premises:** It is also agreed that Tenant will have access to the Premises by means of its existing drive for the duration of the Lease term or extended Lease term.

The parties have executed and made effective this First Amendment as of January 31, 1994.

Lessor:
Elkhorn Ranch, Inc.;
a California corporation

By _____
H. WILLS BOOTH, III,
Vice President

Tenant:
Caspian, Inc. a California corporation

By _____
CYRUS A. JAFFARI
President

[Caspian.lse]

Carlisle, 1991

APPLIED GEOSCIEI ES INC.

5505 Morehouse Drive, Suite 230
South Sorrento Plaza
San Diego, CA 92121
(619) 558-0600
FAX (619) 558-7180

15 March 1991
A901848A

Katherynne N. Vander Molen
A Professional Law Corporation
7550 Eads Avenue, Suite 401
La Jolla, California 92037

Attention: Ms. KATHERYNNE N. VANDER MOLEN

SUBJECT: LETTER REPORT PRESENTING RESULTS OF STOCKPILE AND EXCAVATION SOIL SAMPLING AT 4951 RUFFIN ROAD, SAN DIEGO, CALIFORNIA

Dear Ms. Vander Molen:

This letter presents the results of stockpile soil sampling at 4951 Ruffin Road, San Diego, California (site). The work was conducted by Applied Geosciences Inc. in general accordance with Attachment 2 and Amendment 1 to Attachment 2 to the contract between Katherynne N. Vander Molen and Applied Geosciences Inc. dated 5 October 1990.

OBJECTIVE

The objective of the scope of services is to provide a preliminary assessment of the likelihood that hydrofluoric acid is present in the shallow subsurface soil in the immediate vicinity of the former storage container burial area excavation and associated stockpiled soil at the site.

SCOPE OF SERVICES

The scope of services included the following:

- Health and Safety Plan;
- Site Visit and Sample Collection;
- Laboratory Analysis; and
- Data Analysis, Report Preparation, and Project Management.

BACKGROUND

Our understanding of the site is based on information provided by Ms. Linda Collins of Caspian Inc. It is our understanding that thirty 30- gallon capacity, plastic-lined, metal containers, that

had previously contained hydrofluoric acid, were buried at the site in approximately 1971 or 1972. These containers were reported to be empty prior to their burial. It is also our understanding that these containers were recently excavated and removed from their buried location. The excavation from which the containers had been removed is approximately 36 feet long, 14 feet wide, and two feet deep. The remains of the metal containers and their plastic liners were reported to have been removed from the excavation, washed, and disposed of.

HEALTH AND SAFETY PLAN

The Health and Safety Plan is an integral part of our hazardous materials practice. It is based upon our understanding of the potentially hazardous materials that may be present at the site and safety concerns involved with personnel of Applied Geosciences Inc. working at the site. The Health and Safety Plan was designed to minimize the likelihood that exposure to potentially hazardous materials, and unsafe working conditions, occur during our investigation at the site.

SITE VISIT AND SAMPLE COLLECTION

Six soil samples from approximately zero to six inches below the ground surface in the bottom of the former container burial excavation. A hand auger was used to collect the six soil samples (C-1, C-2, C-3, C-4, C-5, and C-6) from the excavation. In sample locations where stockpiled soil had been placed back into the excavation, samples were collected from beneath the stockpiled soil based on observations made at the site. The sample locations were selected using a random number table in general accordance with the San Diego County Hazardous Materials Management Division soil sampling protocol. The approximate excavation dimensions and sample locations are presented in Figure 1. Field procedures are presented in Appendix A.

Four soil samples were collected from the stockpile associated with the former container excavation. The sample locations were selected using a random number table in general accordance with the San Diego County Hazardous Materials Management Division stockpile soil sampling protocol. A hand auger was used to collect the four soil samples (CS-1, CS-2, CS-3, and CS-4) from the soil stockpile. The approximate stockpile dimensions and sample locations are presented in Figure 1.

LABORATORY ANALYSIS

The ten soil samples collected were analyzed for pH and total fluoride in general accordance with Environmental Protection Agency (EPA) Method Nos. 9045 and 340.2, respectively. Five of the soil samples (C-1, C-3, C-5, CS-1, and CS-3) were analyzed for 17 total metals in general accordance with California Code of Regulations, Title 22, Article 11 (CCR, T22, Art.11) Method. The samples were analyzed by Analytical Technologies Inc., a State-

certified hazardous waste laboratory. A summary of the laboratory data is presented in Table 1. The laboratory reports are presented in Appendix B.

DISCUSSION

Analytical results for total metals concentrations in soil were reported to be below the total threshold limit concentration (TTLC) listed in CCR, T22, Art.11 for the samples analyzed. The total metals concentrations were reported to be below ten times the soluble threshold limit concentration (STLC) listed in CCR, T22, ART.11 for the samples analyzed, therefore the soluble metals concentration for these samples will be below the STLC based on the Waste Extraction Test Method.

There is a very low likelihood that soil in the stockpile and at the limits of the excavation contain the 17 metals analyzed in concentrations which would exceed the TTLC or the STLC.

PH in soil samples collected ranged from 5.1 to 6.8. If hydrofluoric acid were present in the soil, pH would be expected to be less than 2.5.

Total fluoride in soil samples ranged from 9.5 to 146. These concentrations are less than the mean fluoride concentration (280 mg/kg) reported for soils in the Western United States. (Shacklette and Boerngen, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, U.S. Geological Survey Professional Paper 1270).

Fluoride concentrations are below the STLC (180 mg/kg) and TTLC (18,000 mg/kg) listed in CCR, T22, Art.11 Sec. 66699.

There is a very low likelihood that hydrofluoric acid is present in soil at the limits of the excavation and in the stockpile.

CONCLUSIONS

Based on the soil analyses, data presented in this report, current regulatory guidelines, and the professional judgment of Applied Geosciences Inc., the following conclusions have been made:

- There is a very low likelihood that soil in the stockpile and at the limits of the excavation contain the 17 metals analyzed in concentrations which would exceed the TTLC or the STLC.
- There is a very low likelihood that hydrofluoric acid is present in soil at the limits of the excavation and in the stockpile.

RECOMMENDATION

Based on the soil analyses, data presented in this report, current regulatory guidelines, and the professional judgment of Applied Geosciences Inc., the following recommendation has been made:

- Submit this letter report to the San Diego County Hazardous Materials Management Division (HMMD) and the Regional Water Quality Control Board (RWQCB) and request that the case be closed and the stockpiled soil be used to backfill the excavation.

If you have any questions regarding this report, please feel free to call us at (619) 558-0600.

Sincerely,
APPLIED GEOSCIENCES iNC.

G L Carlisle

Craig L. Carlisle
Project Hydrogeologist

G L. Carlisle for

Timothy M. Smith
Assistant Staff Scientist

CLC:TMS/mln

Enclosure

cc: File A901848A

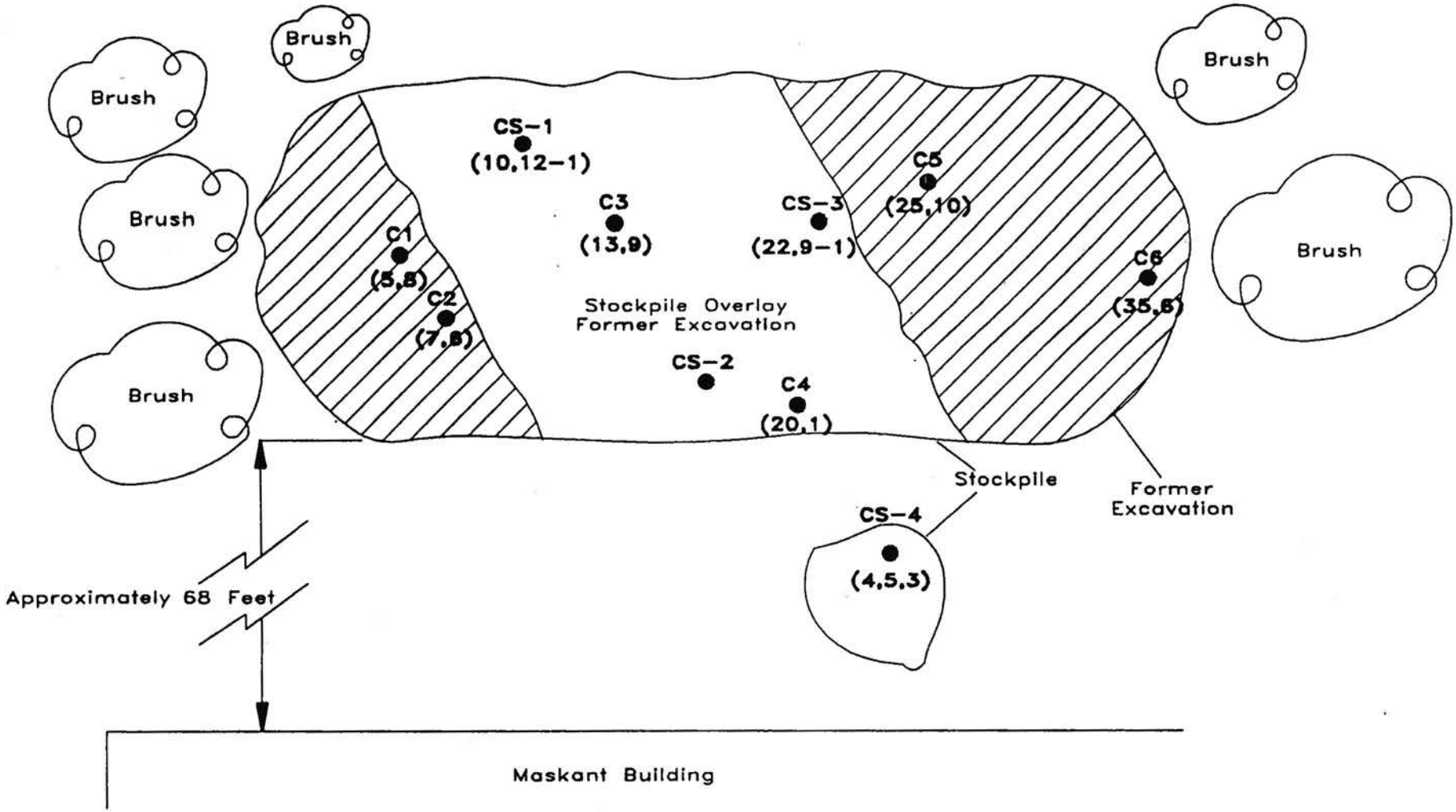
TABLE

TABLE 1
ANALYTICAL RESULTS FOR pH, FLOURIDE, AND TOTAL METALS IN SOIL SAMPLES COLLECTED FROM THE BURIED DRUM AREA AT CASPIAN INC.
PROJECT NO. A901848A

PARAMETER	SAMPLE NUMBER										STLC	TTLC
	C-1	C-2	C-3	C-4	C-5	C-6	CS-1	CS-2	CS-3	CS-4		
pH	6.8	6.1	5.8	5.9	5.6	5.1	5.5	5.9	6.2	5.9		
FLOURIDE	49	102	71	87	74	146	83	58	94	9.5	180	18,000
ANTIMONY	<3.0	----	<3.0	----	<3.0	----	<3.0	----	<3.0	----	15	500
ARSENIC	5.2	----	10.5	----	9.5	----	11.1	----	12.7	----	5.0	500
BARIUM	58.1	----	87.6	----	163	----	62.7	----	36.9	----	100	10,000
BERYLLIUM	<0.5	----	<0.5	----	<0.5	----	<0.5	----	<0.5	----	0.75	75
CADMIUM	0.7	----	0.9	----	0.7	----	0.9	----	0.7	----	1.0	100
CHROMIUM	18.8	----	13.7	----	14.3	----	15.2	----	12.0	----	5	500
COBALT	2.2	----	2.1	----	2.2	----	2.7	----	4.2	----	80	8,000
COPPER	15.4	----	18.6	----	6.2	----	13.4	----	13.7	----	25	2,500
LEAD	3.2	----	3.3	----	3.7	----	4.3	----	3.1	----	5.0	1,000
MERCURY	<0.25	----	<0.25	----	<0.25	----	<0.25	----	<0.25	----	0.2	20
MOLYBDENUM	<1.0	----	<1.0	----	<1.0	----	<1.0	----	<1.0	----	350	3,500
NICKEL	3.5	----	2.9	----	3.7	----	4.3	----	3.1	----	20	2,000
SELENIUM	<1	----	<1	----	<1	----	<1	----	<1	----	1.0	100
SILVER	<1.0	----	<1.0	----	1.6	----	<1.0	----	<1.0	----	5	500
THALLIUM	1.2	----	<1	----	<1	----	<1	----	<1	----	7.0	700
VANADIUM	26.9	----	27.2	----	26.6	----	28.0	----	25.0	----	24	2,400
ZINC	17.4	----	21.4	----	13.6	----	18.7	----	23.2	----	250	5,000

NOTES:
All results for chemical constituents are reported in milligrams per kilogram (mg/kg).
<3.0 = Results reported below the laboratory detection limit in mg/kg.
---- = Not analyzed.
TTLC = Total Threshold Limit Concentration reported in mg/kg as listed in the California Code of Regulations, Title 22, Article 11, Section 66699 (CCR, T22, Sec. 66699).
STLC = Soluble Threshold Limit Concentration reported in milligrams per liter as listed in CCR, T22, Sec. 66699.
STLC and TTLC for Chromium are those listed for Chromium VI compounds.

FIGURES



EXPLANATION

C1 (5,8) = Sample Taken 0 to 6 Inches Beneth Surface of Excavation at Specific X and Y Coordinates

CS-1 (10,12-1) = Sample Taken From the Stockpile Overlying Excavation at the Specified X, Y and Z Coordinates

All Locations and Dimensions are Approximate

NORTH

0 6

Graphic Scale In Feet

APPLIED GEOSCIENCES INC.

Engineering Geology and Hazardous Materials Consultants

SOIL SAMPLE LOCATIONS

VANDERMOLEN (CASPIAN)
4951 RUFFIN ROAD
SAN DIEGO, CALIFORNIA

PROJECT NUMBER A901848A

FIGURE 1

APPENDIX A

FIELD PROCEDURES

APPENDIX A
FIELD PROCEDURES

The procedures used for collecting and handling soil samples were as follows:

- Soil samples were collected using a hand-driven sampler. Samples were placed in brass tubes and secured with evidence tape. Each sample was then labeled and placed into an ice chilled cooler prior to transport to the laboratory;

- Soil samples were delivered on the same day of collection to Analytical Technologies Inc. (ATI) in San Diego, California. ATI is a State-certified hazardous waste laboratory; and

- Chain-of-Custody procedures, including the use of Chain-of-Custody forms, were used to document sample handling from collection to delivery to the laboratory for analysis.

APPENDIX B

LABORATORY RESULTS

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 10222

March 08, 1991

RECEIVED
MAR 12 1991
APPLIED GEOSCIENCES, SAN DIEGO

APPLIED GEOSCIENCES
5505 MOREHOUSE DR., SUITE 230
SAN DIEGO, CA 92121

Project Name: CASPIAN
Project # : A901848A

Attention: LARRY OBERTI

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
February 19, 1991	10	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in th enclosed analytical schedule. The symbol for "less than" indicates a value below the reportabl detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

SUSAN M. SNYDER
PROJECT MANAGER

RICHARD M. AMANO
LABORATORY MANAGER

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

Report Date: March 08, 1991
ATI I.D. : 102228

ATI #	Client Description	Matrix	Date Collected
1	C-1	SOIL	19-FEB-91
2	C-3	SOIL	19-FEB-91
3	C-5	SOIL	19-FEB-91
4	CS-1	SOIL	19-FEB-91
5	CS-3	SOIL	19-FEB-91
6	C-2	SOIL	19-FEB-91
7	C-4	SOIL	19-FEB-91
8	C-6	SOIL	19-FEB-91
9	CS-2	SOIL	19-FEB-91
10	CS-4	SOIL	19-FEB-91

---TOTALS---

Matrix	# Samples
SOIL	10

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D.: 10222

Analysis	Technique/Description
EPA 340.2 (FLUORIDE)	ELECTRODE
EPA 6010 (ANTIMONY)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BARIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BERYLLIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CADMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COBALT)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COPPER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (LEAD)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MOLYBDENUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (NICKEL)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SILVER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (VANADIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ZINC)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 7060 (ARSENIC)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7471 (MERCURY)	ATOMIC ABSORPTION/COLD VAPOR
EPA 7740 (SELENIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7841 (THALLIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 9045 (pH)	ELECTRODE

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY RESULTS

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D.: 10222

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	C-1	SOIL	19-FEB-91	19-FEB-91
2	C-3	SOIL	19-FEB-91	19-FEB-91
3	C-5	SOIL	19-FEB-91	19-FEB-91
4	CS-1	SOIL	19-FEB-91	19-FEB-91
5	CS-3	SOIL	19-FEB-91	19-FEB-91

Parameter	Units	1	2	3	4	5
FLUORIDE	MG/KG	49	71	74	83	94
pH	UNITS	6.8	5.8	5.6	5.5	6.2

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY RESULTS

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D.: 10222

Sample #	Client ID	Matrix	Date Sampled	Date Received
6	C-2	SOIL	19-FEB-91	19-FEB-9
7	C-4	SOIL	19-FEB-91	19-FEB-9
8	C-6	SOIL	19-FEB-91	19-FEB-9
9	CS-2	SOIL	19-FEB-91	19-FEB-9
10	CS-4	SOIL	19-FEB-91	19-FEB-9

Parameter	Units	6	7	8	9	10
FLUORIDE	MG/KG	102	87	146	58	9.5
pH	UNITS	6.1	5.9	5.1	5.9	5.9

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
pH	102228-09	UNITS	5.9	5.9	0	N/A	N/A	N/A

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
FLUORIDE	102228-10	MG/KG	9.5	9.8	3	4.7	5.0	94

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D.: 1022

Sample #	Client ID	Matrix	Date Sampled	Date Receive
1	C-1	SOIL	19-FEB-91	19-FEB-
2	C-3	SOIL	19-FEB-91	19-FEB-
3	C-5	SOIL	19-FEB-91	19-FEB-
4	CS-1	SOIL	19-FEB-91	19-FEB-
5	CS-3	SOIL	19-FEB-91	19-FEB-

Parameter	Units	1	2	3	4	5
SILVER	MG/KG	<1.0	<1.0	1.6	<1.0	<1.0
ARSENIC	MG/KG	5.2	10.5	9.5	11.1	12.7
BARIUM	MG/KG	58.1	87.6	163	62.7	36.9
BERYLLIUM	MG/KG	<0.5	<0.5	<0.5	<0.5	<0.5
CADMIUM	MG/KG	0.7	0.9	0.7	0.9	0.7
COBALT	MG/KG	2.2	2.1	2.2	2.7	4.2
CHROMIUM	MG/KG	18.8	13.7	14.3	15.2	12.0
COPPER	MG/KG	15.4	18.6	6.2	13.4	13.7
MERCURY	MG/KG	<0.25	<0.25	<0.25	<0.25	<0.25
MOLYBDENUM	MG/KG	<1.0	<1.0	<1.0	<1.0	<1.0
NICKEL	MG/KG	3.5	2.9	3.7	4.3	3.1
LEAD	MG/KG	3.2	3.3	3.7	4.3	3.1
ANTIMONY	MG/KG	<3.0	<3.0	<3.0	<3.0	<3.0
SELENIUM	MG/KG	<1	<1	<1	<1	<1
THALLIUM	MG/KG	1.2	<1	<1	<1	<1
VANADIUM	MG/KG	26.9	27.2	26.6	28.0	25.0
ZINC	MG/KG	17.4	21.4	13.6	18.7	23.2

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10227

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
ANTIMONY	102231-01	MG/KG	<3.0	<3.0	0	22.4	49.4	45
BARIUM	102231-01	MG/KG	24.7	24.6	0	123	98.8	99
BERYLLIUM	102231-01	MG/KG	<0.5	<0.5	0	50.7	49.4	103
CADMIUM	102231-01	MG/KG	<0.5	<0.5	0	45.7	49.4	93
CHROMIUM	102231-01	MG/KG	6.4	6.6	3	52.8	49.4	94
COBALT	102231-01	MG/KG	4.2	4.1	2	97.2	98.8	94
COPPER	102231-01	MG/KG	3.2	3.2	0	51.1	49.4	97
LEAD	102231-01	MG/KG	5.4	4.4	20	51.4	49.4	93
MOLYBDENUM	102231-01	MG/KG	<1.0	<1.0	0	92.3	98.8	93
NICKEL	102231-01	MG/KG	2.4	2.3	4	49.0	49.4	94
SILVER	102231-01	MG/KG	<1.0	<1.0	0	42.9	49.4	87
VANADIUM	102231-01	MG/KG	19.3	19.4	1	112	98.8	94
ZINC	102231-01	MG/KG	13.8	12.9	7	60.2	49.4	94

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
ARSENIC	102231-01	MG/KG	7.1	8.5	18	58.6	49.2	105

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
SELENIUM	102231-01	MG/KG	<1.0	<1.0	0	23.4	29.7	79

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
THALLIUM	102231-01	MG/KG	<1.0	<1.0	0	35.6	49.2	72

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

MSMSD

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
MERCURY	102231-02	MG/L	<0.25	<0.25	0	1.7	1.8	94

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	Blank Spike	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ANTIMONY	10452	MG/KG	<3.0	48.0	50.0	96
BARIUM	10452	MG/KG	<0.5	106	100	106
BERYLLIUM	10452	MG/KG	<0.5	54.4	50.0	109
CADMIUM	10452	MG/KG	<0.5	49.3	50.0	99
CHROMIUM	10452	MG/KG	<1.0	48.7	50.0	97
COBALT	10452	MG/KG	<0.5	101	100	101
COPPER	10452	MG/KG	<1.0	52.3	50.0	105
LEAD	10452	MG/KG	<1.5	50.0	50.0	100
MOLYBDENUM	10452	MG/KG	<1.0	105	100	105
NICKEL	10452	MG/KG	<1.0	50.5	50.0	101
SILVER	10452	MG/KG	<1.0	46.5	50.0	93
VANADIUM	10452	MG/KG	<0.5	99.3	100	99
ZINC	10452	MG/KG	0.8	49.8	50.0	98

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 1022

Parameters	Blank Spike	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
MERCURY	10521	MG/KG	<0.25	2.5	2.5	100

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 1022

Parameters	Blank Spike	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
SELENIUM	10535	MG/KG	<1.0	24.0	30.0	80

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 10222

Parameters	Blank Spike	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
THALLIUM	10563	MG/KG	<1.0	36.4	50.0	73

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : APPLIED GEOSCIENCES
Project # : A901848A
Project Name: CASPIAN

ATI I.D. : 1022

Parameters	Blank Spike	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ARSENIC	10637	MG/KG	<1.0	49.2	50.0	98

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)*100/Average Result

Analytical Technologies, Inc.
5550 Morehouse Drive • San Diego, CA 92121-1709

Chain of Custody

DATE 2/19/91 PAGE 1 OF 2

PROJECT MANAGER: Larry Obert
COMPANY: Applied Geosciences Inc.
ADDRESS: 5505 Morehouse Drive Suite #230 San Diego, Ca. 92121

BILL TO:
COMPANY: Applied Geosciences Inc.
ADDRESS: 5505 Morehouse Drive Suite #230 San Diego, Ca. 92121

SAMPLERS: (Signature) Timothy M. Smith
PHONE NUMBER (619) 558-0600

Recommended Quantity and Preservative (Provide triple volume on QC Samples)

	SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons 418.1 (1L (H_2SO_4)/100g)	Oil and Grease 413.2 (1L (H_2SO_4)/100g)	Gasoline (MOD 8015/DOHS) (4 oz (HCl)/50g)	Diesel (MOD 8015/DOHS) (4 oz (HCl)/50g)	Gasoline/BTXE (MOD 8015/8020) (4 oz (HCl)/50g)	(C6-C25,MOD 8015) (4 oz (HCl)/50g)	BTXE (8020) (2X40ml (HCl)/50g)	Chlorinated Hydrocarbons (8010) (2X40ml (HCl)/50g)	Aromatic Hydrocarbons (8020) (2X40ml (HCl)/50g)	Chlorinated/Aromatic Hydrocarbons (8010/8020) (2X40ml (HCl)/50g)	Organic Pb (500ml/50g)		Pesticides/PCB (8080) (1L/50g)	Base/NEU/Acid Cmpds GC/MS (8270) (1L/100g)	Volatile Cmpds GC/MS (8240) (2X40ml (HCl)/100g)	Polynuclear Aromatic (8310) (1L/100g)	CCR Metals (500ml/100g)	Priority Pollutant Metals (500ml/100g)	PH EPA Method # 9045	Total Fluoride EPA Method # 340.2	Article 11 Metals						Number of Containers
01	C-1	2/19/91		Soil																			X	X	X						1
16	C-2	2/19/91		Soil																			X	X							1
02	C-3	2/19/91		Soil																			X	X	X						1
17	C-4	2/19/91		Soil																			X	X							1
03	C-5	2/19/91		Soil																			X	X	X						1
8	C-6	2/19/91		Soil																			X	X							1
04	CS 1	2/19/91		Soil																			X	X	X						1
9	CS-2	2/19/91		Soil																			X	X							1
6	CS-3	2/19/91		Soil																			X	X	X						1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NUMBER: A901848A		TOTAL NUMBER OF CONTAINERS	9
PROJECT NAME: Caspian		CHAIN OF CUSTODY SEALS Y/N/NA	N
PURCHASE ORDER NUMBER:		INTACT? Y/N/NA	NA
VIA: client		RECEIVED GOOD COND./COLD	Y
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☒ 2 WKS		LAB NUMBER	102228

SAMPLE DISPOSAL INSTRUCTIONS
☐ ATI Disposal @ $5.00 each ☐ Return ☐ Pickup (will call)

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Timothy M. Smith Time: 1150	Signature: Time:	Signature: Time:
Printed Name: Timothy M. Smith Date: 2/19/91	Printed Name: Date:	Printed Name: Date:
Company: Applied Geosciences Inc.	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1150
Printed Name: Date:	Printed Name: Date:	Printed Name: Michael Halbrook Date: 2/19/91
Company:	Company:	Analytical Technologies, Inc.

ATI LABORATORIES: San Diego (619) 458-9141 • Phoenix (602) 438-1530 • Seattle (206) 228-8335 DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

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5550 Morehouse Drive • San Diego, CA 92121-1709

Chain of Custody

DATE 2/19/91 PAGE 2 OF 2

PROJECT MANAGER: Larry Oberti
COMPANY: Applied Geosciences Inc.
ADDRESS: 5505 Morehouse Drive Suite #230 San Diego, Ca. 92121

BILL TO:
COMPANY: Applied Geosciences Inc.
ADDRESS: 5505 Morehouse Drive Suite #230 San Diego, Ca. 92121

SAMPLERS: (Signature) [signature]
PHONE NUMBER (619) 558-0600

Recommended Quantity and Preservative (Provide triple volume on QC Samples)

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons 418.1 (1L (H_2SO_4)/100g)	Oil and Grease 413.2 (1L (H_2SO_4)/100g)	Gasoline (MOD 8015/DOHS) (4 oz (HCl)/50g)	Diesel (MOD 8015/DOHS) (4 oz (HCl)/50g)	Gasoline/BTXE (MOD 8015/8020) (4 oz (HCl)/50g)	(C6-C25,MOD 8015) (4 oz (HCl)/50g)	BTXE (8020) (2X40ml (HCl)/50g)	Chlorinated Hydrocarbons (8010) (2X40ml (HCl)/50g)	Aromatic Hydrocarbons (8020) (2X40ml (HCl)/50g)	Chlorinated/Aromatic Hydrocarbons (8010/8020) (2X40ml (HCl)/50g)	Organic Pb (500ml/50g)		Pesticides/PCB (8080) (1L/50g)	Base/NEU/Acid Cmpds GC/MS (8270) (1L/100g)	Volatile Cmpds GC/MS (8240) (2X40ml (HCl)/100g)	Polynuclear Aromatic (8310) (1L/100g)	CCR Metals (500ml/100g)	Priority Pollutant Metals (500ml/100g)	PH EPA Method No 9045	total flouride EPA Method #340.2	Article 11 Metals							Number of Containers
CS-4	2/19/91		Soil																				X	X								1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NUMBER:	A901848A	TOTAL NUMBER OF CONTAINERS	1
PROJECT NAME:	CASPIAN	CHAIN OF CUSTODY SEALS Y/N/NA	N
PURCHASE ORDER NUMBER:		INTACT? Y/N/NA	NA
VIA:	client	RECEIVED GOOD COND./COLD	Y
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☒ 2 WKS		LAB NUMBER	102228

SAMPLE DISPOSAL INSTRUCTIONS
☒ ATI Disposal @ $5.00 each ☐ Return ☐ Pickup (will call)

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1150hrs	Signature: Time:	Signature: Time:
Printed Name: Timothy N. Smith Date: 2/19/91	Printed Name: Date:	Printed Name: Date:
Company: Applied Geosciences Inc.	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: [signature] Time: 1150
Printed Name: Date:	Printed Name: Date:	Printed Name: Michael Hallaway Date: 2/19/91
Company:	Company:	Analytical Technologies, Inc.

ATI LABORATORIES: San Diego (619) 458-9141 • Phoenix (602) 438-1530 • Seattle (206) 228-8335 DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

Caspian, 1999a

DRAFT

CASPIAN, INC

STORM WATER POLLUTION PREVENTION PLAN

AND

BEST MANAGEMENT PRACTICES

CREATED: OCTOBER 1, 1992

UPDATED: JULY 19, 1999

INTRODUCTION AND BACKGROUND

Caspian Inc. is a chemical milling facility located in San Diego, California. Caspian performs a service for the aerospace industry whereby excess weight is removed from aerospace and missile component parts without affecting their structural Integrity. The plant has been in operation since 1965 and currently employs approximately ~~90~~40 people.

The chemical milling operations at this facility process aluminum, ~~and~~ titanium and steel metal alloys. In the chemical milling process, most component parts are covered with a waterborne coating called maskant. The coated parts are then scribed resulting in the removal of the maskant in certain selected areas as specified by our customers. The parts are then dipped into either a sodium hydroxide solution or a mixture of hydrofluoric and nitric acid. This etches areas on the parts where the coating/maskant has been removed,resulting in the removal of excess weight. Several other paints and coatings are subsequently applied to certain parts prior to shipment to our customers.

Runoff from the Caspian facility needs to be covered under the California Storm Water General Permit. A Notice of Intent was filed in March of 1992 requesting coverage for this facility. Caspian also holds and adheres to State Water Resource Control Board Order Number 87-106 which pertains to storm water discharge on the south side of the facility. This order number was issued by the Regional Water Quality Control Board over 10 years ago. This order number was superseded in 1997 with 97-03-DWQ and caspian filed the NOI in May, 1997. The facility's primary 4-digit SIC is 3479, Coating, Engraving, and Allied Services, Not Elsewhere Classified.

SITE LOCATION

The Caspian plant occupies approximately 8 acres in the City of San Diego. The facility is located at 4951 Ruffin Road between Balboa Avenue and Clairemont Mesa Blvd. The facility is located on a western bluff overlooking Murphy Canyon. The closest known well is located about one mile south of the facility at a gravel pit in Murphy Canyon. (Source: Hargis & Assoc. August 18, 1986).

REGIONAL RAINFALL

Regional precipitation for San Diego County has been significantly impacted in recent years by the extended drought in California. Prior to the drought rainfall averaged 9.32 inches per year. (Source: National Weather Service). Typical rainfall during the drought has been significantly less.

SITE DESCRIPTION

The site plan shown for the Caspian facility is shown on the maps located in this document. As required the map locates the following features:

i. drainage and discharge structures
ii. Outline of storm water drainage areas for each storm water discharge point.
iii. Paved areas and buildings
iv. Areas of pollutant contact
v. Location of existing storm water structural control measures i.e. berms, coverings, etc.

BUILDINGS

Building #1 is an assembly area where aluminum component parts are attached to aluminum stringers. Equipment in this building consists of riveting equipment and aluminum component parts. The building is constructed from sheet metal and is enclosed on all sides. A small office for Quality Control is also located within this building.

Building #2 is an area where waterborne maskant coatings are applied to small aluminum test panels. The material is nonhazardous. The floor is covered with a plastic sheet of material to protect the concrete. Waterborne maskant is also stored in this area for shipment to our customers. The material is not exposed to rain as the building is enclosed. The building is constructed from sheet metal. This building also has a mezzanine area for storage of records.

Building #3 is a quality-control, scribing, and painting area. The building is constructed from sheet metal and is enclosed on all sides. Equipment in this building consists of a paint booth where waterborne coatings are applied, an oven where the component parts are baked at low temperatures as well as various inspection tables and equipment. Various tooling equipment is also located in this building.

Building #4 is a benching area. Aluminum parts are routed and benched in this area. Equipment found is this building consists of routing machines, various types of milling equipment, hand held grinders and saws. Production control offices and a tool crib are also located within building #4. The building is constructed from sheet metal and is enclosed on all sides.

Building #5 is a large building designated for the application of non-hazardous waterborne coatings to large aerospace skins and component parts. Parts are sprayed in this building. The floor is covered with a plastic sheet of material to protect the concrete. Typical equipment found in this building is spray equipment and limited storage of the waterborne maskant. The building is constructed from sheet metal and is enclosed on all sides.

Building #6 is a laboratory where chemical analysis are performed for the milling tanks as well as research and development of new waterborne products. Numerous chemicals are found in this building as well as laboratory equipment consisting of beakers, hot plates, scales, etc. Small aluminum and titanium coupons are coated in this area for evaluation of new products. The building is constructed inside of a sheet metal building and is enclosed on all sides.

Building #7 is the maintenance building where various tools and equipment are stored for routine maintenance of the facility. The building is constructed of concrete block and is enclosed on all sides.

Building #8 is a routing building. Aluminum stringers are routed in this area. The equipment found is this building is routing tables and aluminum parts. The building is constructed of concrete block and is enclosed on all sides.

Building #9 is a waterborne maskant production area. This building contains the various chemicals necessary to manufacture the maskant. Equipment found in this building include various mixers, tanks, pumps and a large 6,000 gallon dip tank containing waterborne maskant. Outside the building is a covered area which houses tooling for the manufacture of leading edges. The building is constructed from sheet metal and is enclosed on all sides. The covered are housing the tooling is constructed from wood.

Building #10 is a sheet metal manufacturing shop which consists of a press break, shear, mills, punch presses and drill presses. Various aerospace component parts are produced in this area. The building is constructed from sheet metal and enclosed on all sides.

Building #11 is currently a shipping and receiving area as well as a storage area for tooling for large aerospace component parts. Various aluminum and titanium sheet metal is stored in this area as well as lumber, paper products and equipment for the manufacture of boxes, etc. The building is constructed from sheet metal and is enclosed on all sides.

Building "S" is the main office at the facility. There are several offices and typical office type equipment in these buildings. The building is a stucco type structure and totally enclosed.

Three other areas not numbered on the map include the area outside of building one which is a covered area where aluminum aerospace component parts are prepared for shipment to the customer. This area typically has very little equipment other than various tables and saw horses. This area is constructed with sheet metal with the East end of the building open. Directly across from this area is a covered paint booth area where parts are spray painted with a fuel tank coating. Next to the spray booth is an oven where the waterborne parts are cured at a low temperature. A flammable storage area is also located behind building nine. This area is bermed and has a roof on it as well as a custom tarp designed to prevent rainwater from entering. The area

is constructed of block approximately 3 feet high. An opening of approximately 6 to 8 feet with a ramp is provided for forklift access.

OUTSIDE PROCESSING AREA

The area where the chemical milling tanks are located is not a covered area. This area contains four large processing structures which contain a sodium hydroxide mixture. The largest of these tanks hold approximately 35,000 gallons of solution. There are four tanks which are deoxidizer tanks. The largest of these tanks holds approximately 25,000 gallons of a dilute nitric acid solution. Two tanks approximately 5,000 gallons in size are utilized for chemical milling of titanium/steel parts. These tanks contain a hydrofluoric and nitric acid solution. Two steam boilers are also located in a wooden building and are contained in this area. Inside the steam boiler room a caustic membrane system is also located. Various filter presses, tanks, pumps mixers and related type of equipment can be found in this area. The area is entirely bermed with concrete as to prevent any rainwater run-off. Several of the tanks have secondary containment including the 35,000 gallon processing container as well as the two titanium milling tanks. One dead sump is located to the West of the chemical milling area near the laboratory. This sump collects rainwater. The rainwater is pumped back into the bermed chemical milling area for recycling into the chemical milling tanks. Another storm water drain is located approximately 2 feet outside of the bermed chemical milling area. Rainwater collects at this point and is discharged to the South side of the facility as indicated in the State Water Resource Control Board Order Number ~~87-106~~97-03-DWG held by Caspian. During heavy rainstorms a shut off valve is closed off out of an abundance of caution due to the close proximity to the bermed chemical milling area.

LOADING/UNLOADING AREAS

There are two areas at the Caspian facility where materials are loaded or unloaded. Building #11 which is a shipping and receiving area is allowed to unload aluminum materials, titanium sheet, building materials and non-hazardous products. All chemicals or liquid materials of any type are loaded and unloaded in the bermed chemical milling area or at the bermed storage area located north of building #1. The materials are then transported within the facility to either the- flammable storage area or to the designated area where the materials will be utilized.

SITE PAVING AND DRAINAGE

All manufacturing and storage areas of the Caspian facility are covered with impervious surfaces. All buildings have concrete flooring and the rest of the facility has an asphalt covering. The only area which is not covered is the unused area directly south of building #9 and certain perimeter areas outside of the chemical milling areas. The unpaved areas for the most part contain vegetation in order to prevent erosion of the soil, and have hills or earthen berms to prevent water flow off the property.

STORM DRAIN SYSTEM

The storm drain system for the Caspian facility consists of an underground storm drain and a drain for storm water runoff on the South side of the facility. Caspian holds State Water Resource Control Board Order No. ~~87-106~~97-03-DWQ which addresses the storm water run off on the South side of the facility. This order has been in existence since on or before ~~April 5, 1971~~May 1, 1997. The order requires Caspian to protect from runoff all wastes, trash, debris, etc. The order allows for storm water runoff only. This particular storm drain is not connected with the sanitary sewer system.

PROCESS WASTEWATER AND SANITARY SEWER SYSTEM

The process rinsewater and rainwater at the Caspian facility is collected in a totally enclosed closed loop system. The concreted area where the milling tanks are located is entirely bermed and the materials in this area are entirely contained. The rainwater is collected in three large 8,000 gallon tanks. The rainwater is later used for replacement make-up water to the chemical milling tanks. The area is constructed in such a manner that all rinse water or rainwater is collected into a free standing sump and then pumped directly to a holding tank or into one of the three stand-by tanks utilized during the winter months.

Sanitary wastewater is discharged to a sewer main, where the wastewater then flows into a Public Owned Treatment Works at Point Loma.

BELOW GRADE STRUCTURES

~~At the present time~~In 1992 Caspian ~~is~~was in the process of closing in place four below grade structures. These structures have not been in use since approximately 1986. The materials were removed from the structures and temporary lids have been placed on each structure. The structures ~~are~~were maintained to ensure that no water collects inside. These structures were permanently closed in 1996.

ABOVE GROUND TANKS

Caspian currently has approximately twelve aboveground tanks. All of these tanks are contained in the bermed area. Several of the tanks have secondary containment on their own as described in the outside processing area section.

DESCRIPTION OF POTENTIAL-SOURCES OF POLLUTANTS IN STORM WATER DISCHARGES

The following sections describe the POTENTIAL sources to storm water discharge at the Caspian facility. The facility is designed and managed in a manner which minimized potential impacts to storm water runoff.

The following sections describe the potential pollutants at the facility and the estimated annual quantities of these pollutants in storm water.

POTENTIAL POLLUTANTS

Potential pollutants to storm water will be identified for each area of the site.

Building #1 - potential pollutants from activities in building #1 would be shavings from aluminum parts caused by the drilling of holes in the parts and riveting. This building is totally enclosed and the likelihood of rainwater entering the building and discharging into the storm water is highly unlikely. The building is swept on a daily basis to, minimize the aluminum shavings.

Building #2 - Potential pollutants from activities in building #2 would mainly be a waterborne latex base material. A small amount of solvents may be used in this area to wipe clean parts prior to coating the small aluminum test panels. However, this is the only water priority chemical that would be found in this formulation. The building is totally enclosed with an opening approximately 12/ft wide for forklift access.

Building #3 - Potential pollutants from activities in this building would be over spray from the waterborne protective type of coating applied in the paint booth. The area outside of the paint booth is swept on a daily basis to minimize over spray on the floor. A small amount of solvents and a waterborne latex maskant as well as a small amount of solvent base maskant used for touch-up purposed only, may also be minimally applied in this building. The building is totally enclosed and the likelihood of rainwater entering the building is minimal.

Building #4 - Potential pollutants from activities in this building. would metal shavings from the aluminum parts. The building is totally enclosed and the likelihood of rainwater entering the building and discharging into the storm water is minimal.

Building #5 - Potential pollutants from activities in this building would be the over spray of a waterborne latex coating which is applied. The building is totally enclosed and the likelihood of rainwater entering the building is minimal.

Building #6 - This building is a laboratory which is totally enclosed. Numerous chemicals in small quantities are stored in cabinets in this building for research and development purposes. The building is totally enclosed and the likelihood of rainwater entering this building and reaching the storm drain is virtually non existent.

Building #7 - This building is the maintenance building where tools and maintenance items are stored. Potential pollutants for this ares would include trace metals, oil and grease. The building is totally enclosed and the likelihood of rainwater entering this building and reaching the storm drain is unlikely. However due to the close proximity of this building to a storm drain which discharges on the south side of the facility, a rubber plug is attached to the outside of the building in case of an emergency spill of

oil, etc. The plug can be easily placed into the storm drain thereby sealing off the drain and eliminating discharge to the south side of the facility.

Building #8 - This building is a routing building. The only potential contaminant would be aluminum shavings. The building is swept on a daily basis to prevent the shavings from leaving the building. The building is enclosed and the likelihood of rainwater entering this area is minimal.

Building #9 - The maskant production area contains numerous chemicals as listed in attachment "9". The building is totally enclosed and has a 12" berm outside the building to further ensure that if a chemical spill does occur, that it will not reach the storm drain. The building is enclosed and the likelihood of rainwater entering this area is minimal. Due to the close proximity to the storm drains, the additional berm was added. Covers for the storm drain are also placed in the flammable storage area in order to minimize materials reaching the storm drain.

Building #10 - This building is a sheet metal manufacturing shop. Potential pollutants would include aluminum shavings. A small amount of solvent may be stored in this area in order to hand wipe the aerospace component parts. This building is totally enclosed and the likelihood of rain water entering this area is minimal. The area is swept on a daily basis to further minimize.aluminum from getting outside the building.

Building #11 - This building is a shipping and receiving area for aluminum, titanium, lumber, paper products, etc. The only potential pollutant for this area would be oil or grease spills and drips from loading and unloading vehicles used to transport materials to the warehouse.

Building "S" - This is the main office building. Potential pollutants are not found in this building. The building is totally enclosed and it would be virtually impossible for rainwater to enter this area.

The other three areas not numbered on the map are as follows:

1. The covered area outside of building #1 where parts are prepared for shipment. A potential pollutant for this area would be oil or grease from the parts being oiled prior to shipment. A small amount of solvents may be used in this area in order to hand wipe the aerospace component parts. This building is enclosed on three sides. The East end of the building is open. The potential for rainwater to enter this building is minimal.

2. The paint booth area outside of building two is where one custom paint booth an oven and a dye penetrant booth are located. The area is covered and all painting of parts occurs inside the booth. The oven is used strictly for a low temperature baking process required with waterborne maskants. The dye penetrant booth is used strictly for locating cracks of flaws in the aerospace parts. This booth is connected directly into the public owned treatment works sewage line. The materials used in this area are approved for discharge by Caspian's industrial

wastewater permit. Potential pollutants from this area would include trace amounts of metals which may be present in the coatings applied in the paint booth. The floor is swept after painting to minimize the potential of over sprayed paint from leaving the booth. The booth is totally enclosed and the likelihood of rainwater entering the booth is virtually non-existent.

3. Potential pollutants from the flammable storage area would be solvents or gasoline. The building has a roof on it and is tarped on three sides. The front of the area is fenced in order that unauthorized personnel do not enter this area. A three foot block wall and a ramp would prevent rainwater that may enter this area from escaping. The potential for rainwater to enter this area is minimized by the construction of the building.

POTENTIAL POLLUTANTS IN STORM WATER RUNOFF

The Caspian facility design and operating practices minimize the potential of pollutants entering the storm water. The South side of the facility is the only area where significant amounts of rain water would leave the facility. Due to the drainage of the facility, most of the rain water would be contained on site. The facility yard slopes toward the parking lot. The parking lot slopes toward the production facility. Rainwater collects at this point and is discharged to the south side of the facility. Caspian has a well defined Best Management Practices as well as spill prevention and emergency response procedures. It is our belief that no significant amounts of pollutants are likely to be present in storm water runoff.

STORM WATER MANAGEMENT CONTROLS

This section discusses the structural source controls and facility management practices. The practices are further discussed in the Best Management Practice Manual (BMP) and are not detailed in this document.

STRUCTURAL SOURCE CONTROLS

Secondary containment is provided in the areas of the Caspian facility that house chemicals and hazardous wastes. The entire chemical milling area where the greatest amount of chemicals are stored is completely bermed and all the rain water that falls in this area is collected and used in the production tanks. Any hazardous wastes are stored in either water tight drums or water tight roll-off bins. The facility's Hazardous Material Business Plan contains a list of all chemicals stored on site. The parking lot water does not mix with the manufacturing area due to the berm at the front of the manufacturing area.

SPILL PREVENTION AND RESPONSE

Specific guidance and procedures are listed in Caspian's Hazardous Materials Business Plan and also in the Hazard Communication Program. Due to the proximity of the

chemical storage area to the storm drains. It is highly unlikely that any material from the chemical milling area would reach the storm water.

All loading and unloading of liquid chemicals is performed within the facility away from the parking lot any storm drains. All loading and unloading is done by Caspian trained personnel. If a spill of any quantity occurs the Environmental Manager is notified immediately. Several employees at the site have specific training for spill response practices and these procedures are adhered to. Emergency response procedures are specifically outline in the Hazardous Materials Business Plan as well as the Emergency Contingency Plan as illustrated in the Right To Know Manual.

MAINTENANCE

The storm drain system on the South side of the facility is inspected on a minimum of a weekly basis. The employees are instructed to look for leaves that may be clogging the drains, inspect for any unusual stains or odors as well as any discharges. The drains are marked in both English and Spanish "Rain Water Only". Each of the drains is covered with a wire mesh screen to prevent debris from entering the drain and flowing down the hill. Accumulated leaves or other debris are removed during the weekly inspection. The storm drain near the maintenance building is equipped with a plug incase of an emergency spill in this area. The drains on the South side of the facility are equipped with a cover to place over the drain to minimize any potential pollutants from entering the storm drain system if a spill were to occur.

Vehicle maintenance for the most part is performed off-site at a dealership. The forklift maintenance is performed on site away from the parking lot, by a forklift repair company. Any drips or spills of fluids are collected and properly disposed of in accordance with local, state and federal regulation.

Landscape maintenance is performed on an annual basis. Landscaped areas are watered approximately once a week. Fertilizers and pesticides are generally not used. If these chemicals are used, instructions are followed and minimum quantities are applied.

General housekeeping activities are performed on a daily basis. The floors are swept and the aluminum shavings are placed in the proper recycling bins. The outdoor paved areas are swept on an as needed basis. Water is not used in place of sweeping.

PERSONNEL RESPONSIBLE FOR STORM WATER POLLUTION PREVENTION

The personnel responsible for the storm water pollution prevention are the Environmental Department. Additional information may be obtained by contacting Mark Jaffari, ~~Environmental Manager~~Technical Director/Vice President at (619) 279-3110. If Mark Jaffari is not available ~~Kathleen Reinert, Environmental Chemist~~Rick Remias, General Manager, may be reached at the above listed number.

EMPLOYEE TRAINING

The Caspian facility has several extensive training programs for all employees pertaining to best management practices. The facility does an annual Right To Know Training Program which encompasses many other topics including environmental regulations and impacts. Additional memorandums as well as training sessions are conducted if needed. The Caspian facility has written programs and guidance on the following subjects: 1) Hazardous Material Business Plan 2) Hazardous Waste Source Reduction and Management Review (SB-14) 3) Hazard Communication Program 4) Injury and Illness Prevention Program (SB-198) 5) Chemical Hygiene Plan 6) Handling, Storage, Disposal Training Program 7) The Employee Handbook and Safety Policy Program 8) Best Management Practices and 9) First Responder Awareness

WASTE COLLECTION AND DISPOSAL PRACTICES

Liquid wastes from the chemical milling are collected and either re-used or disposed of off-site at a Class I Landfill. All waste transported off-site are described in the hazardous waste manifest which are kept on site for a minimum of three years. The records are kept in the laboratory. The sodium hydroxide that is recycled off site is transported by way of tanker truck to the designated facility. Wastes such as scrap metal or waste oil are stored in enclosed containers and isolated from contact with storm water.

Caspian has an active waste minimization program for all wastes generated at this facility. Caspian reduced it's air emissions from 450 tons to less than 8 tons per year by switching to a waterborne maskant. Caspian also reduced its off site disposal of spent sodium hydroxide by installing a membrane system that regenerates the sodium hydroxide and produces an aluminum trihydroxide which is a salable product. All waste oil is recycled.

INSPECTION PROGRAM

As mentioned in maintenance section of this document, the storm drains are inspected on a weekly basis and the drains are properly marked "Rainwater Only". Inspections are performed by the Environmental Department and well as employees who work in the vicinity of the storm drains.

Caspian, 1999b

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SFUND RECORDS CTR
2102326

CASPIAN INC.

SITE ASSESSMENT SUMMARY

4951 Ruffin Road
SD 92123

The purpose of this report is to provide a summary of soil sampling results and remediation activities at the Caspian Inc. facility located at 4951 Ruffin Road, San Diego, California. This report indicates that the facility is free of contaminated soil and other hazardous substances. Caspian Inc. has operated a chemical milling facility at this location since 1965. Chemical milling of aluminum and other aircraft alloys has been the primary business.

FACILITY DESCRIPTION

The ground surface at the site lies at an approximate elevation of 430 feet above mean sea level (MSL). The geology at the site consists of what is referred to as Lindavista Formation, which is composed predominately of interbedded sandstone and conglomerate. Ferruginous (iron bearing) cement, mainly hematite, and cobbles give the Lindavista Formation its resistant characteristics (Kennedy, et. al, 1975).

The depth to groundwater and groundwater flow direction and gradient are not known at the site. However, according the Regional Water Quality Control Board (RWCQB) groundwater is generally very deep in excess of 60 to 80 feet BGS. Also, borings drilled in the general vicinity of Caspian within one mile of the site have been up to 105 feet BGS and did not encounter groundwater.

SITE ASSESSMENT SUMMARY

Under the direction of the County of San Diego Environmental Health Services Site Assessment and Mitigation (SAM) Division and the San Diego Regional Water Quality Control Board (RWQCB), Caspian performed soils investigations for areas involved in production activities at the site. The activity locations were completed on a location specific basis and are identified as follows:

Below Grade Processing Structures (BGPS) identified as: 14, 15, 81, and Maskant Dip Tank

BGPS 14, 15 and 81

Below Grade Processing Structures #14 and #15 were previously utilized for the chemical milling of aluminum. Aluminum is not a heavy metal and is not

regulated in California or by the Federal Government except in dust or fume form. BGPS #81 previously was used for the chemical milling of titanium. Like aluminum, titanium is not considered a heavy metal. All BGPS were removed from service in 1986 and all liquids were removed and disposed of in accordance with State, Federal and Local Regulations. These structures have not been used since that time.

In November of 1991 an outside consulting firm "Dudek & Associates collected 32 discrete grab samples and two composite soil samples from thirteen soil borings adjacent to the four BGPS, 14, 15, 81 and the maskant dip tank. The samples were analyzed for constituents known to have been present in the BGPS. The location of the samples, analytical methodology and constituents to be analyzed were agreed upon and the work performed under the direction of the SAM Division, County of San Diego Environmental Health Services. State Certified Laboratories utilizing only EPA approved methods performed all analytical testing.

The samples associated with BGPS 14, 15 and 81 were tested for all California Title 22 listed metals. See Attachment "A" Table 1. Results for all samples in this area were 10 times below the regulatory threshold. The concentrations of the Title 22 metals were very low demonstrating that the samples taken at the tank locations on-site, were quite similar to samples taken off-site as background samples. See the complete report in Attachment "B".

Because soil sampling from these investigations concluded that a threat to human health or the environment did not exist, Caspian requested and was granted permission to close the BGPS in place. The County Site Assessment and Mitigation Division authorized closure in place and allowed all drill cuttings to be used as fill along with yellow fill dirt brought in from off-site. A no further action and closure letter was issued in May of 1996. See Attachment "C" for letter and pertinent correspondence pertaining to closure. 96

Maskant Dip Tank

tank Removed, Cleanup

The maskant dip tank was removed from service in 1986. Maskant is a rubberized coating used in the chemical milling industry to protect certain areas of aluminum during the chemical milling process. The maskant material previously in the tank contained perchloroethylene and this constituent was the major chemical of concern for this production area. Perchloroethylene (PCE) was detected in the vicinity of the maskant dip tank. The highest amount detected was 190 mg/kg, which is more than an order of magnitude below regulatory thresholds. Due to the low concentrations of PCE detected, the decrease of detection with depth and the geology of the soil, no further

ctra

PCE

190 kg

Prg =

investigation was required. The maskant dip tank was removed, the area back-filled with clean yellow soil and closure was granted by the SAM Division. See attachment "C" for further detail and correspondence dated 9-20-93 allowing closure in place for the maskant dip tank.

Old Alodine Area

In 1991 Caspian Inc., removed an aboveground tank system in an area commonly referred to as the Alodine area. This tank system previously contained chromated solutions commonly used to protect aluminum aircraft parts from corrosion. In order to satisfy the SAM Division of the County of San Diego Environmental Health Services and obtain closure in conjunction with these tanks, soil samples were taken beneath the concrete in areas that were believed to be the most highly impacted. These soil samples were analyzed for Hexavalent Chromium and other California Title 22 metals. You will find in attachment "D" a summary of the sample locations and analytical results. Because the results on all metals were below hazardous waste levels, the SAM Division determined that additional information was not necessary and closure was granted.

Buried container excavation-Site Assessment Investigation H07938-001

In 1991, Caspian discovered that thirty 30-gallon plastic lined metal containers that previously contained hydrofluoric acid were buried at the site in approximately 1971 or 1972. The containers were empty prior to their burial. Caspian voluntarily investigated the soil and contacted the San Diego Environmental Health Services for oversight guidance. Applied Geo Sciences was retained to perform the fieldwork. Numerous soil samples were collected from zero to six inches below the excavation of the former container burial area. The soil was stockpiled until analytical results were obtained. Samples were analyzed for pH and total fluoride in accordance with EPA approved methods. Five of the samples were analyzed for total metals in accordance with California Code of Regulations Title 22. Analytical results demonstrated that total metals in the soil were below 10 times the regulatory thresholds. pH in the soil was in the 5 to 7 range, well below the pH expected for hydrofluoric acid which would be less that 2.5. Based on these analytical findings, the stockpile soil was placed back into the excavation and the EHS approved closure of the site investigation. The complete report and closure letter from EHS can be found in Attachment "E".

stockpile soil

Conclusion

All BGPS at this location have obtained closure in place or have been removed. There are no longer BGPS on site. All production tank systems were brought aboveground in or around 1986. Most tanks have double containment and all current tanks are located in a completely bermed area on impermeable surfaces minimizing any impact to soil or the environment. Based on these findings of soils investigation and concurrence with appropriated regulatory agencies, there are no known restrictions as to future use of the property located at 4951 Ruffin Road, San Diego, California.

DUDEK & ASSOCIATES, INC.

605 Third Street
Encinitas, CA 92024
(619) 942-5147 • Fax No. (619) 632-0164

September 21, 1992 462-01

Ms. Pamela Villa Clay
Hazardous Materials Management Division
County of San Diego
P.O. Box 85262
San Diego, CA 92186-5261

Re: Transmittal of Results of Subsurface Investigation at the Caspian Inc. Facility, 4951 Ruffin Road, San Diego, California, 92123, HMMD File No. H07938-003

Dear Ms. Clay:

Pursuant to the request expressed by the Hazardous Materials Management Division (HMMD) and the San Diego Regional Water Quality Control Board (RWQCB) in our meeting of 27 July 1992, transmitted herewith are the tabulated results of soil sampling around the below-grade processing structures (BGPS) at the Caspian, Inc. facility, lithologic logs of the soil borings, and maps indicating the locations of the soil borings.

In November of 1991, in accordance with the approved tank closure Permit No. H07938, which specified the number of samples and methods of analysis, Hargis & Associates, Inc. collected thirty-two discrete grab samples and two composite soil samples from thirteen soil borings located adjacent to the four BGPSs at the facility (Tables 1 and 2; Figure 1). These soil samples were variously analyzed for constituents known to have been present in the BGPSs including fluoride, nitrate, sulfide, total butanol, tetrachlorethylene (PCE), triethanolamine, and pH. Subsequently, in February 1992, Hargis & Associates, Inc. collected sixteen composite soil samples of cuttings generated during the drilling of the soil borings adjacent to BGPS-14, BGPS-15, and BGPS-81 (Table 2). The composite soil samples from the soil cuttings associated with BGPS 14 and 15 were analyzed for aluminum while the composite soil samples from soil cuttings associated with BGPS-81 were analyzed for titanium. In March 1992, an additional nine discrete grab samples and two composite soil samples were collected from four additional soil borings adjacent to the Maskant BGPS and BGPS-81 (Table 1). These soil samples were variously analyzed for total butinol, PCE, titanium, and pH. The last four soil borings, SB-14 through SB-17 were drilled adjacent to earlier soil borings in an effort to penetrate to greater depth. Soil boring SB-14 was drilled approximately 14 inches from soil boring SB-5. Soil boring SB-15 was drilled approximately 2.5 feet from soil boring SB-3. Soil boring SB-17 was drilled adjacent to SB-7 and soil boring SB-16 was drilled adjacent to SB-13 (Figure 1). The tabulated results of laboratory analyses of these soil samples were submitted to HMMD in letters on April 15, 1992 and May 27, 1992. The documentation of the composite soil sample collection procedures was submitted to HMMD in a letter May 18, 1992. On May 7, 1992, the summary of

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all soil sample laboratory data, indicating location of all soil borings, and lithologic logs prepared by Hargis & Associates, Inc. were submitted to Kevin Heaton of HMMD.

The lithologic logs submitted to HMMD are transmitted herewith (Table 3). Also attached is a site plan presenting the locations of the soil borings and results of chemical analysis of soil samples from each of the borings (Figure 2) and a cross section of Maskant BGPS area (Figure 3). The cross section has been included to display the subsurface lithology and the distribution and extent of PCE detected in soils in the area of the Maskant BGPS.

The site is immediately underlain by near shore deposits of the Linda Vista Formation (Kennedy 1975[1]). These sediments were logged as silty sands that extend to depths of approximately 15 -20 feet below land surface (bls) with the upper 5-10 feet containing abundant cobbles. The sediments below the silty sands are logged as a cobble conglomerate with a silty sand matrix that extends to approximately 30-35 feet bls. These sediments may be part of the Poway Group Conglomerates. The sediments below the cobble conglomerate are logged as a silty sand or sandy silt to the total depth explored of 81 feet. These sediments may be Friars ~~or Mission Valley~~ Formation. With exception of a few thin lenses of well sorted sand, all of the sediments described in the lithologic logs would be expected to be of relatively low permeability. The saturated hydraulic conductivity of unconsolidated silty sands and fine sands typically ranges from 1×10^{-3} to 1×10^{-5} centimeters per second (Fetter, 1988[2]). The unsaturated hydraulic conductivity would be less.

In general, the highest concentrations of all chemicals were detected in a limited number of borings near the surface (less than 10-20 feet bls) and decrease rapidly with depth. In the area of BGPS-14, soil samples were analyzed for sulfide. No sulfide was detected in soil samples collected from borings SB-10, SB-11 or SB-12, except soil samples collected at depths from 20 to 30 feet bls which contained concentrations ranging from 0.20 to 12 milligrams per kilogram (mg/kg). In the area of BGPS-15, soil samples from borings SB-1, SB-6, SB-8 and SB-9 were analyzed for sulfide and triethanolamine. Sulfide was not detected in any of the soil samples. Only samples from the angled borings SB-8 and SB-9 contained detectable concentrations of triethanolamine. The highest concentrations of triethanolamine were 240 and 350 mg/kg in samples collected from 15 and 16 feet bls. Concentrations in samples collected from 20 to 30 feet bls decreased with depth from 67 to 30 mg/kg. Soil samples from borings SB-7, SB-13, SB-16 and SB-17 in the area of BGPS-81 were analyzed for fluoride, nitrate and titanium. Fluoride concentrations ranged from 92.6 to 28.8 mg/kg in samples collected from depths of 5 to 25 feet bls. One sample was collected at a depth of 30 feet below the surface and contained a concentration of 1.2 mg/kg fluoride. Nitrate concentrations in soil samples ranged from 1.6 to 14.4 mg/kg with no apparent pattern. Only soil samples from borings SB-16 and SB-17 were analyzed for titanium. In boring SB-16, the highest concentration of titanium was 953 mg/kg in the sample from 25 feet bls and then decreased to 106 mg/kg at 30 feet bls. In SB-17, the highest concentration was 770 mg/kg in the sample collected at 20-23 feet bls and decreased to 78.4 mg/kg at 25 feet and 98.6 mg/kg at 30 feet below the surface.

1 Kennedy, M. P., 1975. Geology of the San Diego Metropolitan Area, California, Section A, Western San Diego Metropolitan Area, California Division of Mines and Geology, 39 p.

2 Fetter, C. W., 1988. *Applied Hydrogeology Second Edition, Merrill Publishing Company, 592 pp.*

PCE was detected in the vicinity of the Maskant BGPS. The only soil samples containing concentrations of PCE greater than 10 mg/kg were the samples collected from SB-3 and SB-5 at a depth of 10 feet below the land surface (bls). These soil samples contained concentrations of PCE of 190 and 62 mg/kg, respectively. These samples were the shallowest samples collected from those borings. The bottom of the Maskant BGPS is twenty feet bls. Overall, the PCE concentrations decrease with increasing depth. Typically, the highest concentration of PCE in uniform subsurface sediments would be expected to occur near the possible source of a release. In this case, the highest concentrations were observed in samples obtained at shallow depths.

PCE and trichloroethylene (TCE) have very similar physical properties and the California Maximum Contaminant Level for drinking water is 5 micrograms per liter (ug/l) for both compounds. No California Title 22 threshold limits exist for PCE, so it is useful to use the TCE limits for a comparison purpose. According to Title 22 requirements, soils containing a total concentration (TTLC) of less than 2,040 milligrams per kilogram (mg/kg) TCE and soluble concentration (STLC) of less than 204 milligrams per liter (mg/l) TCE may be treated as non-hazardous waste. The maximum concentration of PCE detected in soil samples from the area of Maskant BGPS is 190 mg/kg, more than order of magnitude below the TTLC for TCE. In the unlikely event that all of the PCE were soluble, the detected concentration is still below the STLC for TCE. 190 mg/kg

Groundwater was not encountered within any of the borings to the maximum depth explored of 81 feet. Saturated soil was noted in the lithologic log from boring SB-1 at depths from 59.5 - 61.0 feet bls; however, the underlying soil to the depth of 81 feet was described as slightly moist. The actual depth to groundwater is unknown, but is expected to be greater than 100 feet. The site is located at an elevation of approximately 420 feet mean sea level on the relatively level Kearney Mesa. Approximately 1,400 feet east of the site at the edge of the mesa, the ground slopes steeply down to the bottom of Murphy Canyon at an elevation of approximately 200 feet msl. Water has not been noted seeping out of the bank of the slope. Water seepage would indicate a groundwater elevation higher than the canyon bottom.

Given the low concentrations of PCE detected (relative to the TTLC and STLC of TCE) the sharp decrease in PCE concentrations with depth, the relatively low permeability expected in the soils below the site and the great depth to groundwater, further investigation into the distribution of PCE in the vicinity of the Maskant BGPS does not appear to be warranted.

As discussed in our meeting, three additional soil samples will be collected from those locations from which only composite samples exist. The locations that will be resampled are those in which highest concentrations of aluminum were detected from the borings near BGPS 14 and 15, and those in which the highest concentrations of titanium were detected in soil samples collected from the borings near BGPS 81. Those locations have been identified as follows:

H07935-003

BGPS 14	Boring SB-11	0-16 feet	Al 19,800 mg/kg;
BGPS 15	Boring SB-8	0-20 feet	Al 16,500 mg/kg;
BGPS 81	Boring SB-13	0-19 feet	Ti 2,980 mg/kg.

For reference, the normal range of aluminum in soil samples in the western United States is 29,000 - 116,000 mg/kg (Shacklette and Boerngen, 1984[3]).

A new boring will be drilled next to each of the locations listed. Based on the composite soil sample results and the depths from which discrete soil samples were collected which contained the highest constituent concentrations, soil samples will be obtained adjacent to boring SB-11 at depth of 16 feet, adjacent to boring SB-8 at a depth of 16 feet and adjacent to boring SB-13 at a depth of 19 feet. The soil samples will be obtained by drilling to the appropriate depth with a hollow-stem auger drill rig. A split spoon sampler equipped with brass tubes will then be driven ahead of the bit to obtain a discrete grab sample from the desired depth. The brass tubes will be sealed on both ends with teflon lined plastic caps. The samples will then be placed on ice and delivered to a state certified laboratory for analysis. Borehole lithology will be logged by a geologist onsite during drilling. The cuttings from the boreholes will be stored on site in labeled 17-H DOT approved 55 gallon drums.

Rather than analyzing the soil samples for selected metals contained in alloys specifically used at the site, the soil samples will be analyzed by a state certified laboratory for the total recoverable concentration of all of the Title 22 CAM metals.

Based on our understanding of the discussions at our 27 July, 1992 meeting, this letter, attachments and the proposed work will address all the concerns expressed by HMMD and RWQCB. If you have any requirements that have not been addressed or any additional recommendations, please contact me at 942-5147.

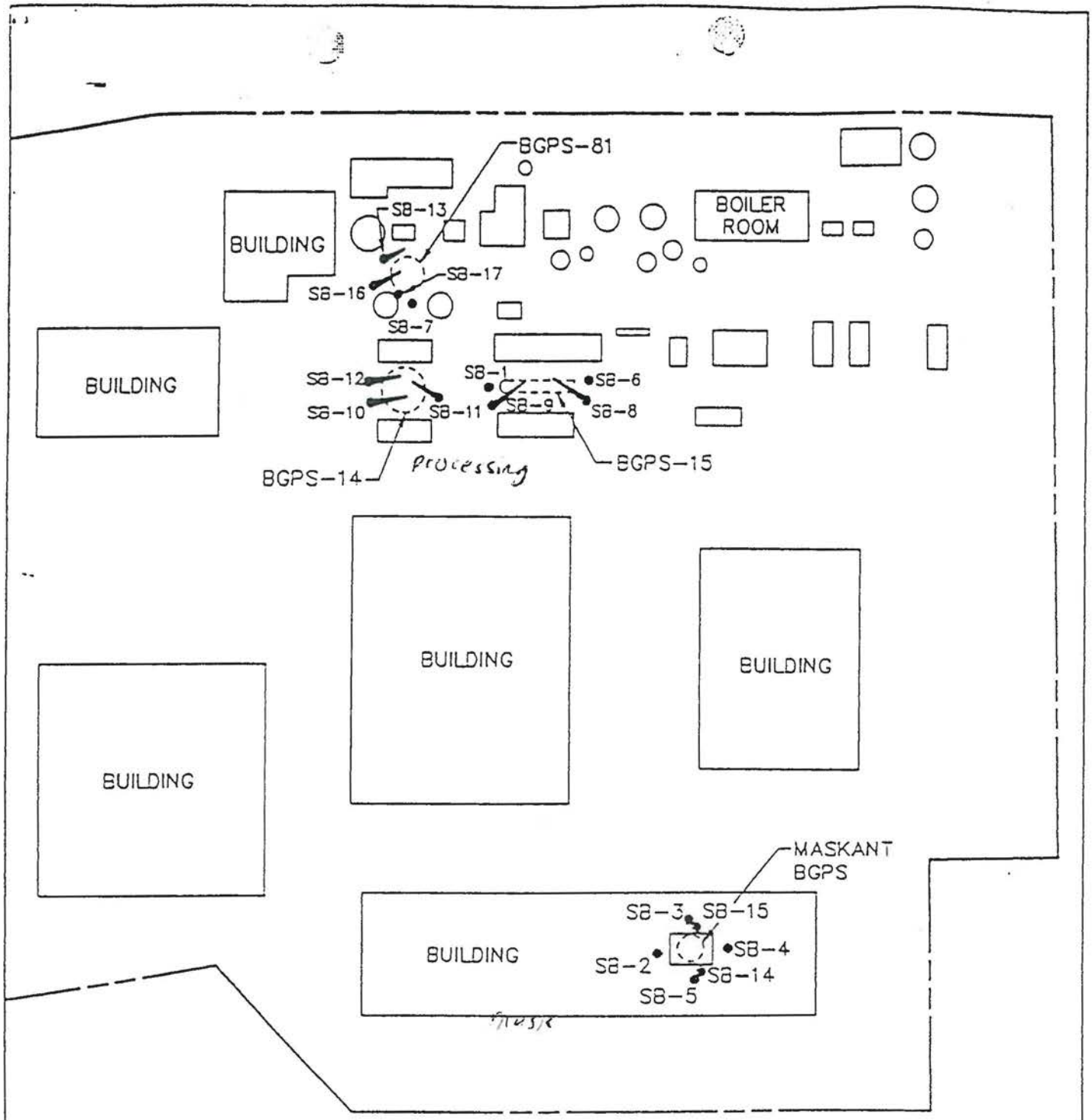
Very truly yours,

Dudek & Associates, Inc.

Peter T. Quinlan, Project Manager
Hydrogeology/Hazardous Waste Division

cc: Linda Collins, Caspian, Inc.
Cory Walsh, RWQCB
Steve McDonald, Luce, Forward, Hamilton & Scripps

3 Shacklette, H. T. and Boerngen, J. G., 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States. U.S. Geological Survey Paper 127, 105 pp.



LEGEND

ANGLE SOIL BORING LOCATION

SOIL BORING LOCATION

BELOW GRADE PROCESSING STRUCTURE

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

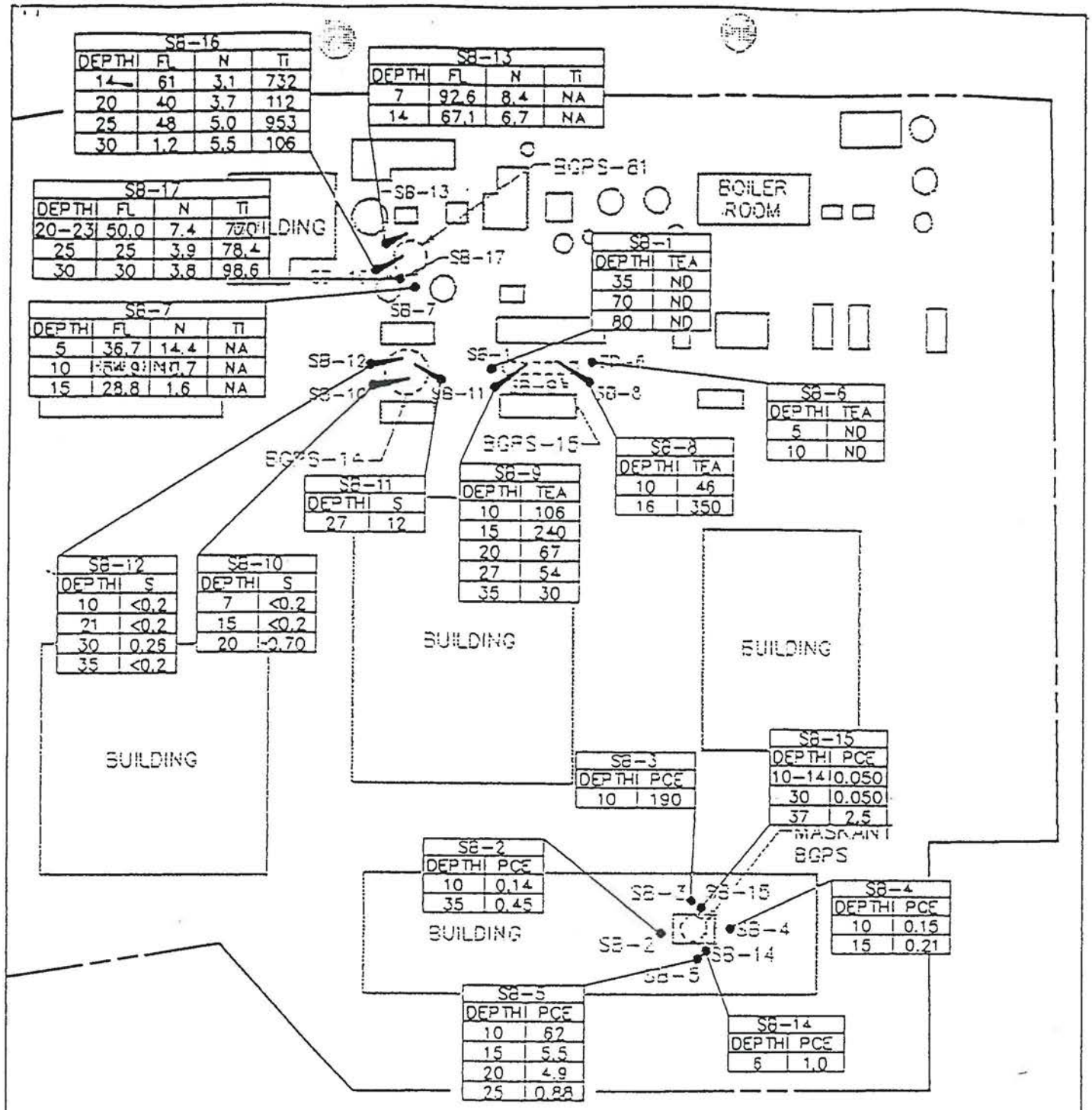
0 100

FEET

FIGURE 1

LOCATION OF SOIL BORINGS

DUDEK & ASSOCIATES, INC.



LEGEND

SB-16			
DEPTH	FL	N	Ti
14	61	3.1	7.32

SOIL BORING IDENTIFIER WITH DEPTH OF SAMPLE IN FEET BELOW LAND SURFACE AND CONSTITUENT CONCENTRATION IN MILLIGRAMS PER KILOGRAM

ANGLE SOIL BORING LOCATION

SOIL BORING LOCATION

BELOW GRADE PROCESSING STRUCTURE

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

0 100

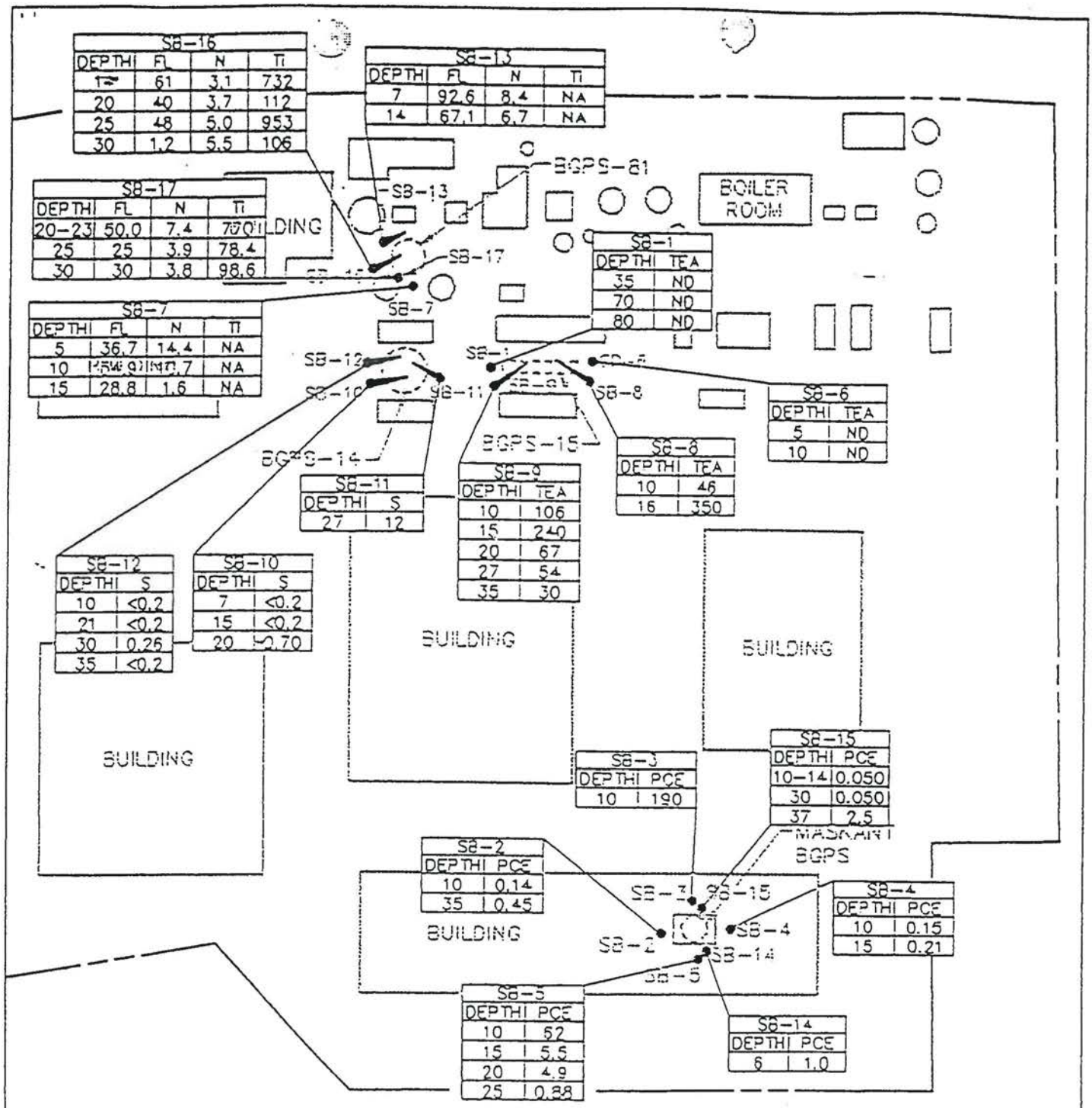
FEET

FL = FLOURIDE
N = NITRATE
Ti = TITANIUM
S = SULFIDE
TEA = TRIETHANOLAMINE
PCE = TETRACHLOROETHYLENE
ND = NOT DETECTED

FIGURE 2

RESULTS OF CHEMICAL ANALYSIS

DUDEK & ASSOCIATES, INC.



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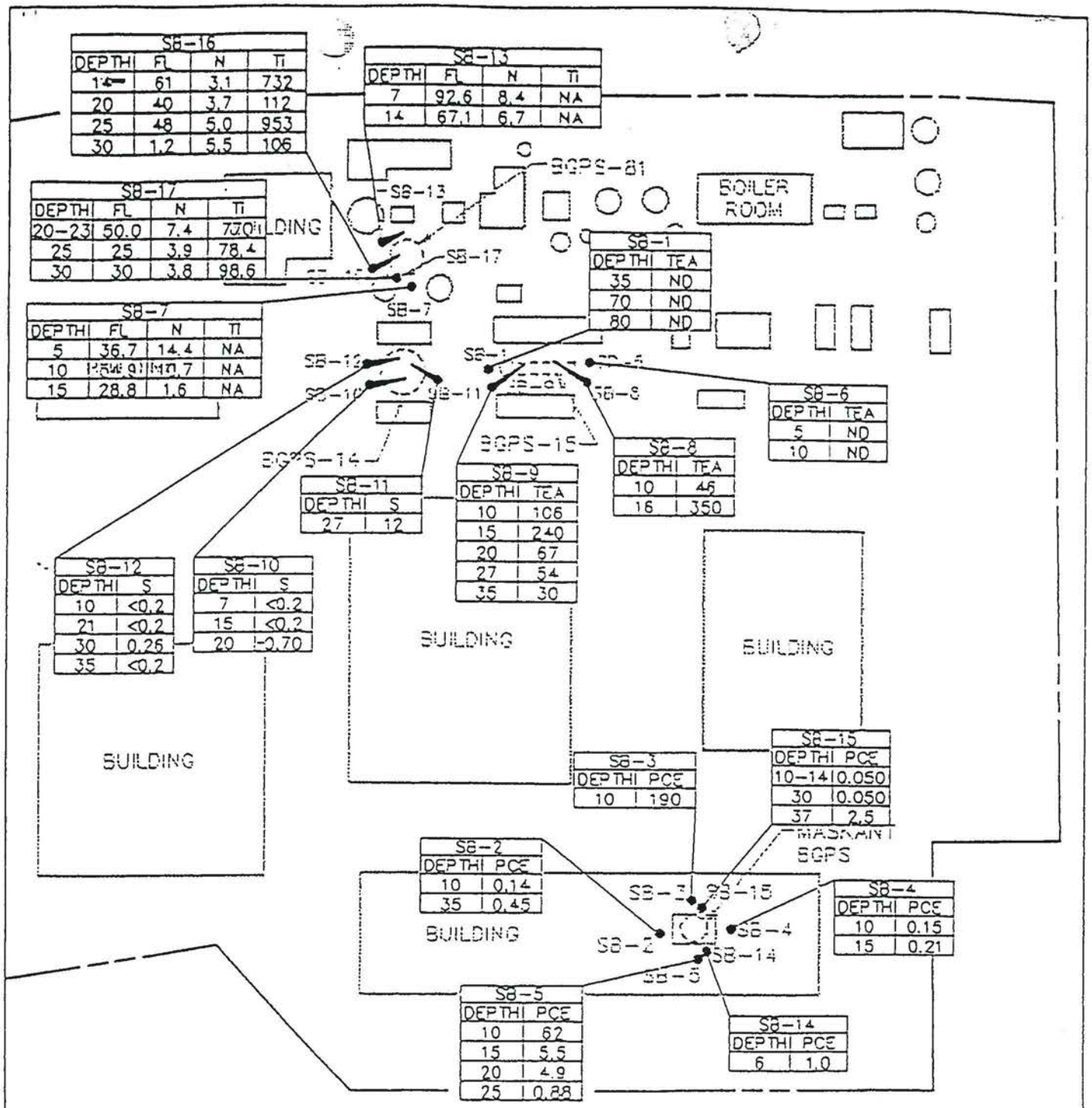

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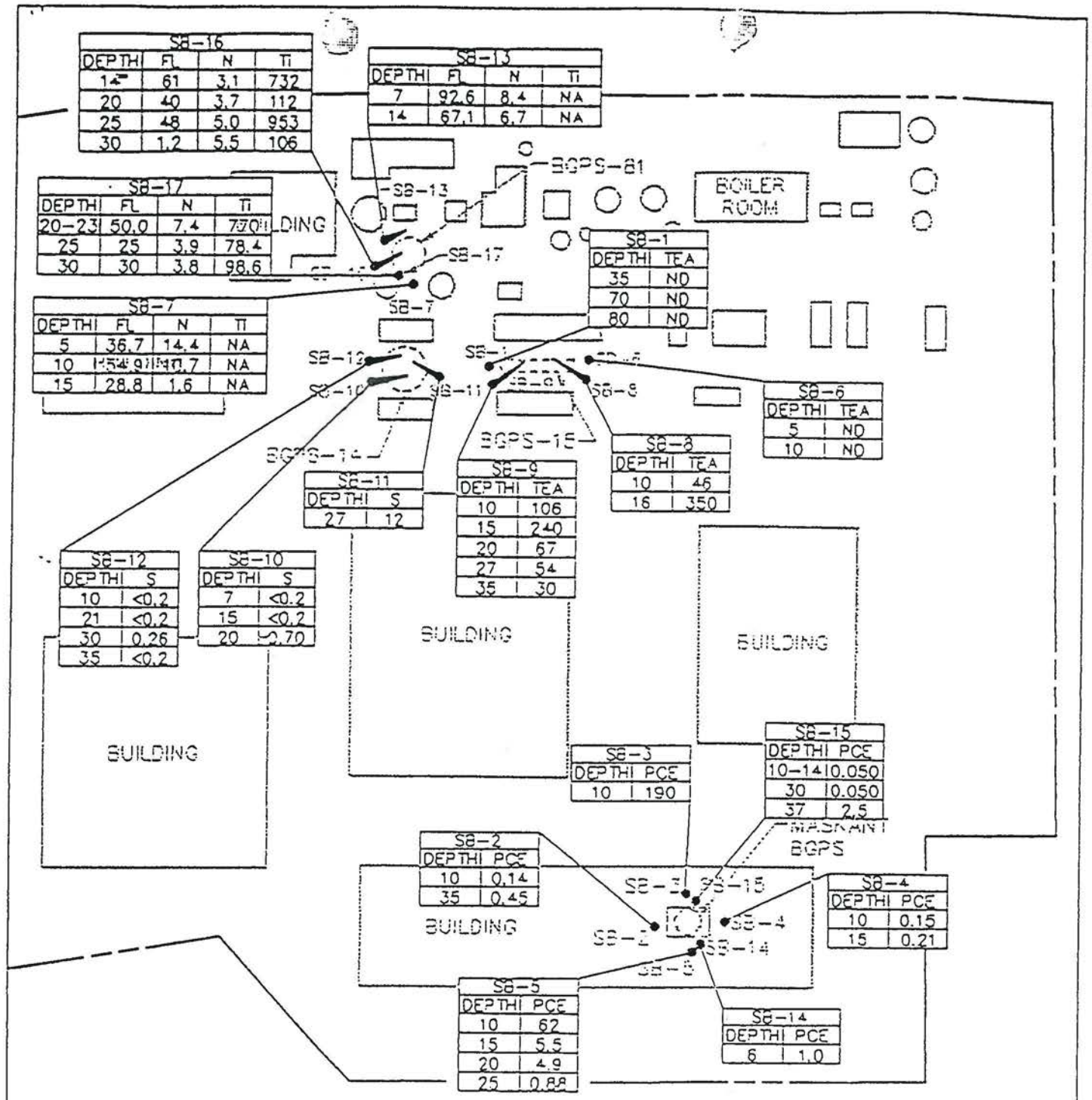

LEGEND

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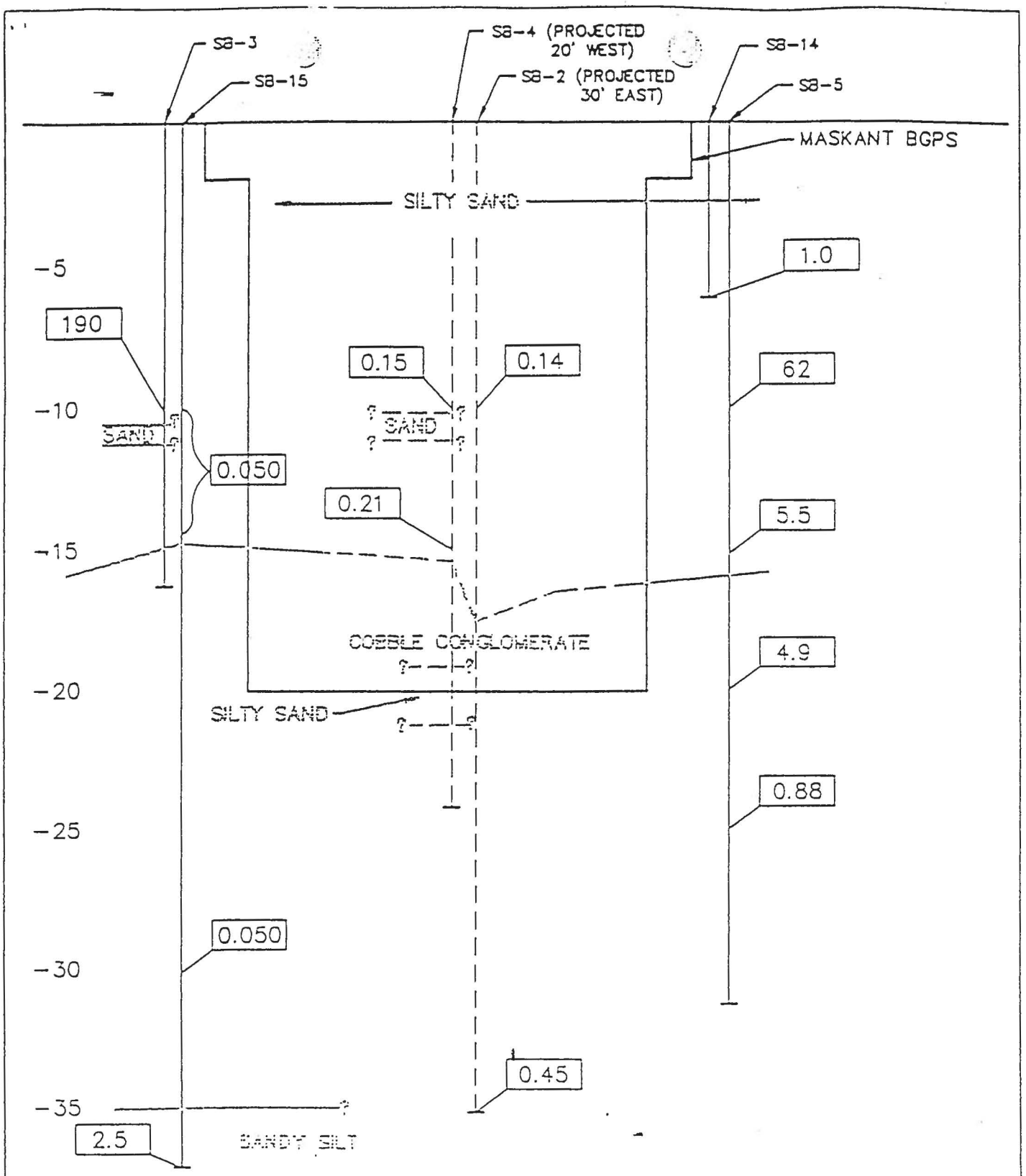


LEGEND

0.15 — CONCENTRATION OF TETRACHLOROETHYLENE (PCE) IN MILLIGRAMS PER KILOGRAM

SCALES

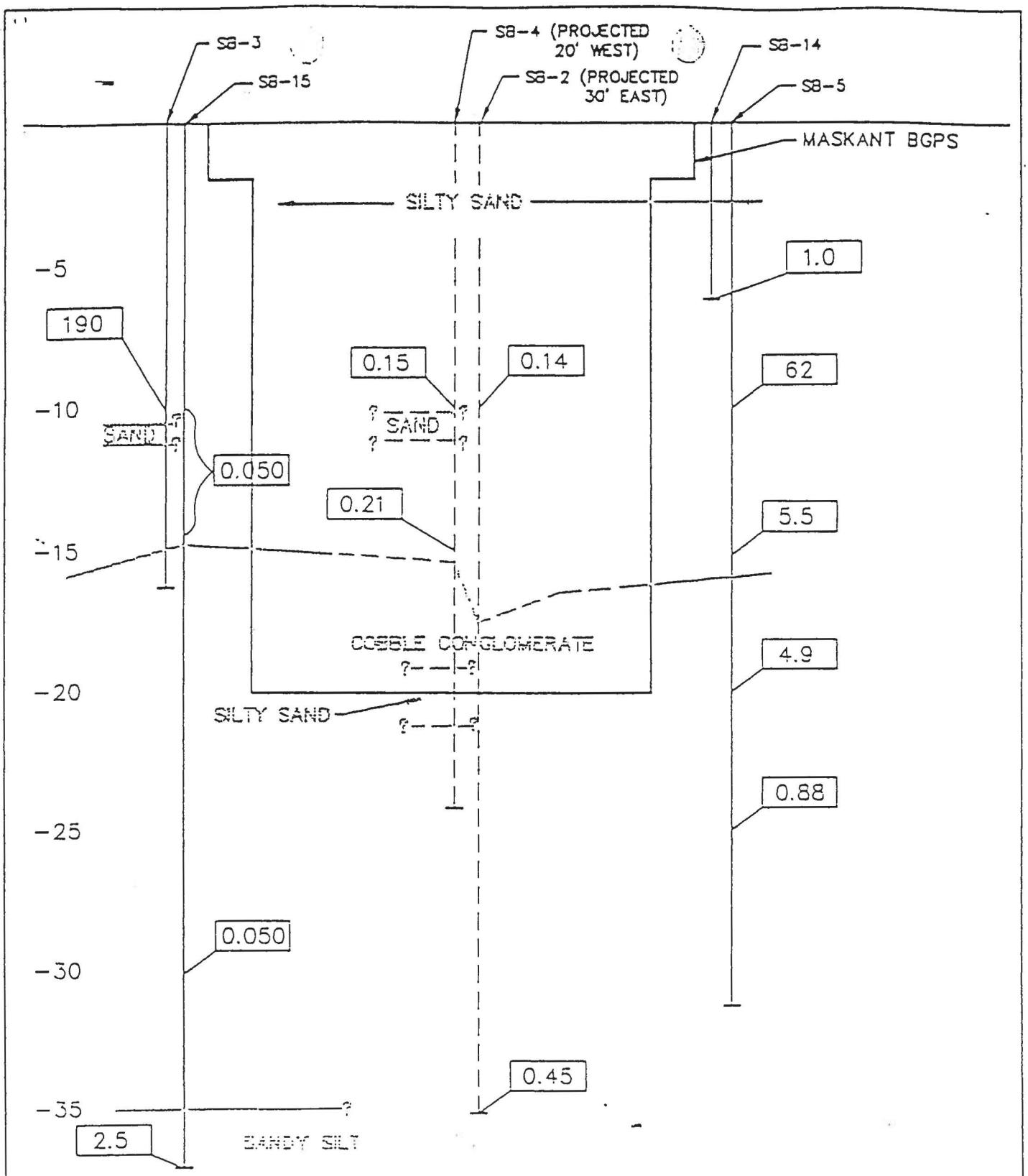
1"=10' HORIZ.
1"=5' VERT.

ALL LOCATIONS AND DIMENSIONS ARE APPROCIMATE

FIGURE 3

MASKANT BGPS CROSS SECTION

DUDEK & ASSOCIATES, INC.



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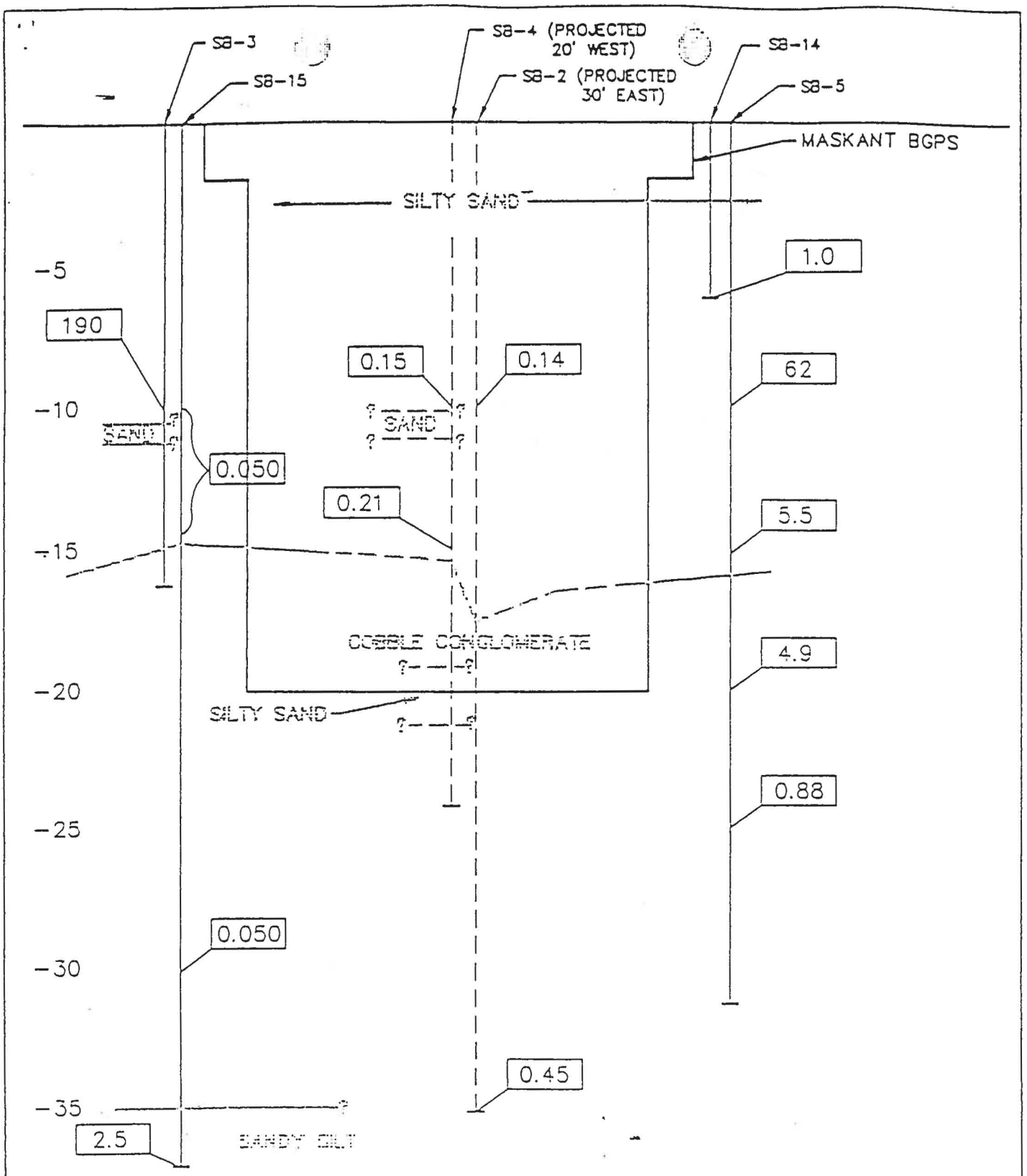

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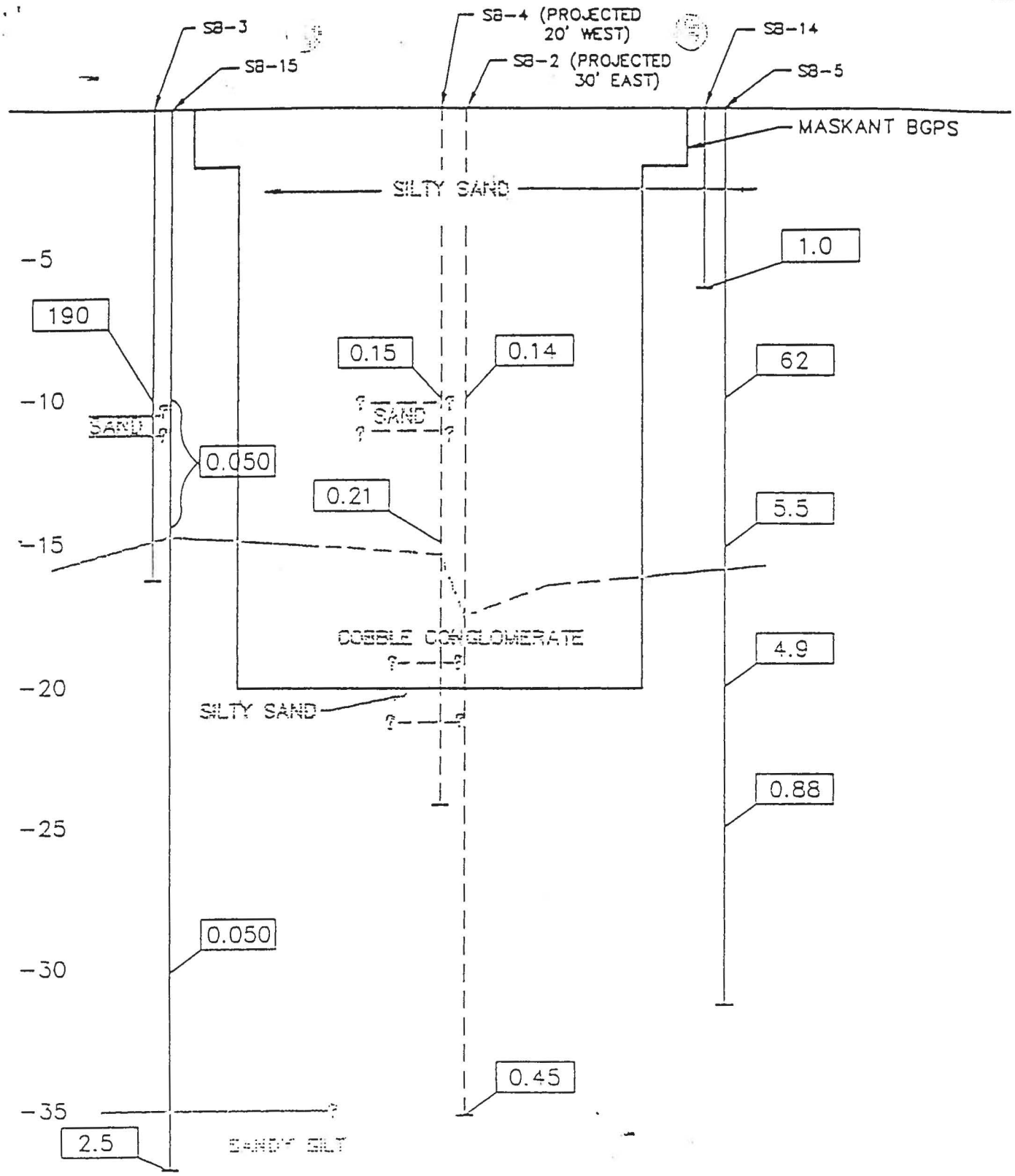

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FIGURE 3

MASKANT BGPS CROSS SECTION

DUDEK & ASSOCIATES, INC.

DUDEK & ASSOCIATES, INC.

605 Third Street
Encinitas, CA 92024
(619) 942-5147 • Fax No. (619) 632-0164

July 30, 1993

462-01

Ms. Pamela Villa Clay
County of San Diego
Department of Health Services HMMD
PO. Box 95261
San Diego, CA 92186-5261

Re: Results of Additional Soil Sampling and Identification of Source of Tetrachloroethylene Previously Detected in Soil Samples at the Caspian Inc. Facility, 4951 Ruffin Road, San Diego, California, 92123, HMMD File No. H07938-003

Dear Ms. Villa Clay:

Pursuant to your letter request dated 14 January, 1993 Dudek and Associates (Dudek) has completed an additional phase of soil sampling in the vicinity of below-grade processing structures (BGPS) 14,15 and 81 and background soil samples at the Caspian Inc. facility located at 4951 Ruffin Road, San Diego, California (the Site). This letter details the sampling procedures and presents the results of the soil chemical analyses. A discussion of the source of tetrachloroethylene (PCE) previously detected in soil samples at the Site follows the discussion of soil sampling. Lithologic logs of the soil borings, maps indicating the locations of the borings, complete laboratory reports, and chain of custody are attached. We have also included the Material Safety Data Sheets (MSDS) for aluminum and titanium alloys most commonly used at Caspian as requested.

Background

Results of previous soil sampling at the Site were used to locate additional soil borings for this investigation. In November of 1991, Hargis and Associates Inc. (HA) performed a subsurface investigation associated with four BGPS's at the Site. During that investigation 13 soil borings were drilled adjacent to the four BGPS's. In February of 1992, HA obtained composite soil samples of cuttings from borings completed adjacent to BGPS 14, BGPS 15 and BGPS 81 (see attached Site Plan). The composite samples obtained adjacent to BGPS 14 and BGPS 15 were analyzed for aluminum. The composite samples obtained adjacent to BGPS 81 were analyzed for titanium. Of the composite samples analyzed, the highest concentrations adjacent to each BGPS are indicated in the following table.

BGPS	Boring	Depth (feet below land surface)	Compound	Concentration (mg/kg)
14	SB-11	0-16	Aluminum	19,800
15	SB-8	0-20	Aluminum	16,500
81	SB-13	0-19	Titanium	2,980

During the 27 July 1992 meeting, the San Diego County Department of Health Services, Hazardous Materials Management Division (HMMD) required discrete grab samples to be analyzed for trace metals. Based on previous results Dudek proposed obtaining samples from locations adjacent to borings SB-11, SB-8 and SB-13. These soil borings were located adjacent to BGPS 14, 15 and 81, respectively.

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Lithologic logs from the previous HA investigation indicate that the Site is underlain by silty sands, sands, silty sands with cobbles and cobble conglomerates. In general, soils from the surface to depths of 6-10 feet are composed of silty sand with cobbles. These soils are underlain by primarily cobble-free silty sands to depths of 13-16 feet. The silty sands are underlain by a cobble conglomerate. In your 14 January 1993 letter, you requested that the discrete soil samples be obtained from the silty sand just above the contact with the cobble conglomerate. In addition, your 14 January 1993 letter also requested background samples be obtained from same geologic formation in an area outside the influence of Site activities. During a telephone conversation on 8 February 1993, Dudek proposed the location for the background boring to be outside the Site's main gate alongside the driveway. This proposed location and sampling depths of approximately 10 and 16 feet were confirmed in a subsequent letter dated 19 February 1993.

Soil Sampling

Soil sampling was performed on 18 May, 1993. Sampling was performed using a Mobile B-90 drill rig equipped with an 8-inch hollow stem auger. The drill rig was supplied and operated by Valley Well Drilling of Oceanside CA. The samples were obtained by drilling to above the desired sampling depth and driving a 2-1/2-inch diameter split spoon sampler ahead of the bit. The split spoon sampler was equipped with three 6-inch by 2-1/2-inch brass tubes which had been decontaminated. The brass tubes were then sealed on both ends with Teflon lined plastic caps, labeled, and stored on ice. Borehole lithology was logged by an onsite geologist during drilling (see attached Boring Logs). Cuttings from the boreholes were placed in 17-H DOT approved 55 gallon drums, sealed, labeled, and stored onsite. One drum was used for each boring. All boreholes were backfilled with bentonite chips, and hydrated. The three boreholes on site were capped with 0.5 feet of concrete at the surface. The background boring was capped with native soil.

One boring was completed at each of the four proposed locations. Boring SB-113 was drilled approximately 5 feet west of boring SB-13, next to BGPS 81 (Figure 1). Boring SB-111 was drilled approximately 1 foot north of boring SB-11, next to BGPS 14. Boring SB-108 was drilled approximately 4 feet northeast of boring SB-8, next to BGPS 15. Borings SB-108 and SB-113 were drilled as close as practicable to borings SB-8 and SB-13, respectively. The background boring, boring SB-100 was drilled on the south side of the Site's driveway approximately 60 feet west of the gate and 13 feet south of the pavement (Figure 2).

At each location, the lithology observed during drilling was compared with previously obtained data. Soil samples were collected within the silty sand beginning 1 to 3 feet above the anticipated contact with the cobble conglomerate . Soil sampling was continued in 1.5 foot intervals until refusal on the cobble conglomerate. The last soil sample above refusal was used for laboratory analysis. The sample depths for each of the onsite samples are as follows: SB-113 at 15.4 feet; SB-111 at 15.5 feet and SB 108 at 14.0 feet. Samples were obtained from the silty sand just above the cobble conglomerate at each of these locations onsite.

During drilling of background soil boring SB-100, a silty sand with cobbles was encountered from land surface to a depth of 11 feet. An attempt was made to collect a soil sample at 10 feet but no sample was recovered due to cobbles. One sample was obtained at a depth of 13 feet. A second sample was obtained at a depth of 15 feet. The soil sampler was unable to penetrate beyond 15 feet. These two samples were obtained from the silty sand interval above the likely contact with the cobble conglomerate.

All of the soil samples were delivered to Analytical Technology Inc. of San Diego, CA (ATI) for analysis for total recoverable metal concentration according to the methods described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" SW-846, 2nd edition, US. Environmental Protection Agency, 1982 (see attached Chain of Custody). The results of these analyses indicate that concentration of all soil samples are less than the Total Threshold Limit Concentration (TTLC) for all 17 CAM Metals (Table 1). All results are also less than 10 times the Soluble Threshold Concentration (STLC) for all 17 CAM Metals(see attached ATI Laboratory Report). In general, there does not appear to be a difference between the concentrations of CAM metals detected onsite and those of the background boring. Sample SB113-15.4 contained 68.8 mg/kg of nickel which was more than other onsite or background samples. However, this concentration is still less than the TTLC for nickel and less than ten times the STLC for nickel.

In addition to the Title 22 CAM metals each of the soil samples were also analyzed for aluminum and titanium. The results of these analyses are as follows:

Sample	Boring	Depth (feet below land surface)	Aluminum (mg/kg)	Titanium (mg/kg)
SB113-15.4	SB-113	15.4	15,300	636
SB111-15.5	SB-111	15.5	25,100	1,020
SB108-14.0	SB-108	14.0	7,120	438
SB100-13.0	SB-100	13.0	5,110	697
SB100-15.0	SB-100	15.0	4,800	365

These results are in close agreement with the concentrations of the previously obtained composite samples. There is no evidence that discrete zones of high metal concentrations are present. Furthermore, the concentrations of aluminum and titanium onsite vary by less than half an order of magnitude from those observed in the background boring. For reference, the normal range of aluminum in soil samples in the western United States is 29,000 to 116,000 mg/kg (Shacklette and Boerngen, 1984). The MSDS sheets for aluminum and titanium characterize both metals as having low health risks. Aluminum and titanium dusts are considered nuisance dusts. The aluminum and titanium concentrations observed from soil samples collected onsite do not appear to have been significantly elevated by onsite activity.

No further investigation into metal contamination associated with BGPS 14,15 and 81 is recommended. During this investigation three borings were drilled onsite and one offsite. Concentrations of the Title 22 CAM metals are low in all samples and the offsite and onsite concentrations are similar. Currently 14 soil borings have been drilled in the vicinity of BGPS's 14,15 and 81. Analyses of soil samples from these investigations have not provided any evidence that metal concentrations in the subsurface soils in the vicinity of the BGPSs pose a risk to human health as a hazardous waste or threaten to cause groundwater to exceed maximum contaminant levels established for metals. As discussed below, the depth to groundwater is at least 81 feet and is probably greater than 100 feet. Based on these results, Caspian requests that in September 1993 it be allowed to proceed with closure of the BGPSs as detailed in the 8 August 1990 Closure Plan which was approved by HMMD on 7 January 1991.

Caspian requests that it be allowed to dispose of soil cuttings onsite. Soil cuttings from all 14 soil borings drilled to date around BGPSs 14, 15, and 81 are currently being stored onsite in 55 gallon drums. The concentrations of total recoverable metals in soil samples from the last four borings which were targeted on the highest previously detected concentrations are all well below the TTLC concentrations. They are also less than 10 times the STLC. Based on these results, there is no evidence that these soils would present a hazard by being left at the surface on the site. The most cost effective method of disposing of the soils is to spread them on unpaved portions of the Site. Leaving the soils onsite will avoid unnecessary landfill disposal.

PCE Source

PCE was detected in soil samples collected in November 1991 and March 1992 in the vicinity of the Maskant BGPS. The only soil samples containing concentrations of PCE greater than 10 mg/kg were the samples collected from SB-3 and SB-5 at a depth of 10 feet below the land surface (bls). These soil samples contained concentrations of PCE of 190 and 62 mg/kg, respectively. These samples were the shallowest samples collected from those borings. The bottom of the Maskant BGPS is 20 feet bls. Overall, the PCE concentrations decrease with increasing depth. Typically, the highest concentration of PCE in uniform subsurface sediments would be expected to occur near the possible source of a release. In this case, the highest concentrations were observed in samples obtained at shallow depths.

PCE and trichloroethylene (TCE) have very similar physical properties and the California Maximum Contaminant Level for drinking water is 5 micrograms per liter (ug/l) for both compounds. No California Title 22 threshold limits exist for PCE, so it is useful to use the TCE limits for a comparison purpose. According to Title 22 requirements, soils containing a total concentration (TTLC) of less than 2,040 milligrams per kilogram (mg/kg) TCE and soluble concentration (STLC) of less than 204 milligrams per liter (mg/l) TCE may be treated as non-hazardous waste. The maximum concentration of PCE detected in soil samples from the area of Maskant BGPS is 190 mg/kg, more than order of magnitude below the TTLC for TCE. In the unlikely event that all of the PCE were soluble, the detected concentration is still below the STLC for TCE.

Groundwater was not encountered within any of the borings to the maximum depth explored of 81 feet. Saturated soil was noted in the lithologic log from boring SB-1 at depths from 59.5 - 61.0 feet bls; however, the underlying soil to the depth of 81 feet was described as slightly moist. The actual depth to groundwater is unknown, but is expected to be greater than 100 feet. The site is located at an elevation of approximately 420 feet mean sea level on the relatively level Kearney Mesa. Approximately 1,400 feet east of the site at the edge of the mesa, the ground slopes steeply down to the bottom of Murphy Canyon at an elevation of approximately 200 feet msl. Water has not been noted seeping out of the bank of the slope. Water seepage would indicate a groundwater elevation higher than the canyon bottom.

Prior to 1989, PCE was used in the Maskant BGPS. PCE was detected in soil samples at 10 feet below land surface. The base of the Maskant BGPS is at 20 feet below land surface. Overall, PCE concentrations decrease with depth in soil samples collected from borings drilled in the vicinity of the Maskant BGPS. A hole was observed in the north side of the Maskant BGPS at approximately 18 to 19 feet bls. In addition, a gap exists between the lip of the Maskant BGPS and the concrete slab surrounding it. It appears that the source of PCE in soil samples in the vicinity of the Maskant BGPS was from surface operations in and around the Maskant BGPS, from the hole in the north side, or from the gap surrounding it.

10'
PCE

Given the low concentrations of PCE detected (relative to the TTLC and STLC of TCE) the sharp decrease in PCE concentrations with depth, the relatively low permeability expected in the soils below the site and the great depth to groundwater, further investigation into the distribution of PCE in the vicinity of the Maskant BGPS does not appear to be warranted. Caspian requests that it be allowed to proceed with the closure of the Maskant BGPS in accordance with the approved closure plan in September 1993.

If you have any questions or regarding this letter please do not hesitate to call.

Very truly yours,

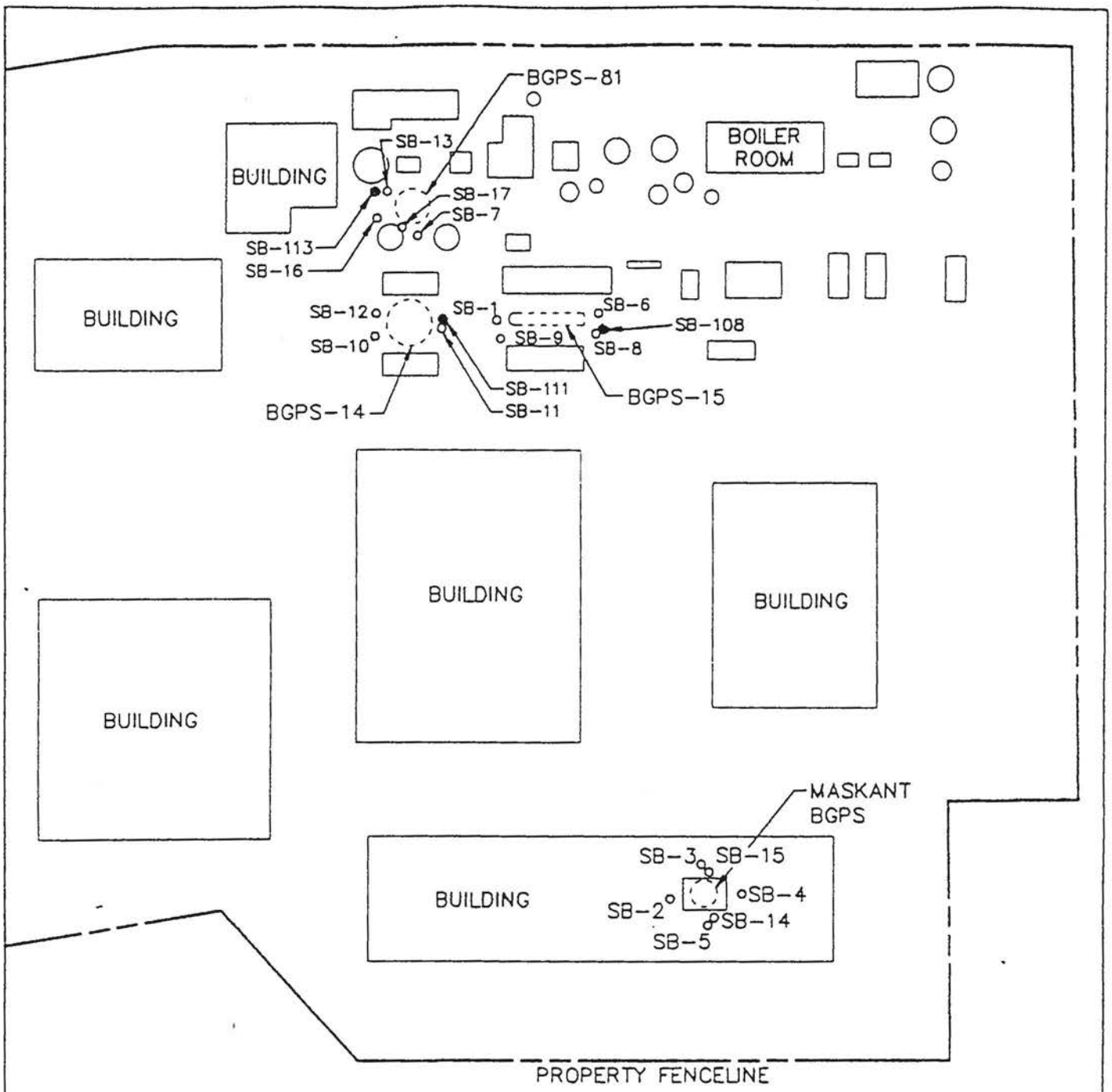
Dudek & Associates, Inc.

Peter Quinlan
Project Manager

John Patskan, R.G. No. 5653
Hydrogeologist

Attachments: Table 1
Lithologic Logs (4 pp.)
Figure 1 Location of Soil Borings
Figure 2 Location of Background Boring
ATI Laboratory Report (7 pp.)
Chain of Custody
MSDS Wrought Aluminum Products (5 pp.)
MSDS Titanium (2 pp.)

cc: [redacted]
Mr. Corey Walsh (RWQCB)



LEGEND

SB-17 ○ PREVIOUS SOIL BORING LOCATION BY HARGIS & ASSOCIATES

SB-113 ● SOIL BORING LOCATION THIS INVESTIGATION

BELOW GRADE PROCESSING STRUCTURE

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

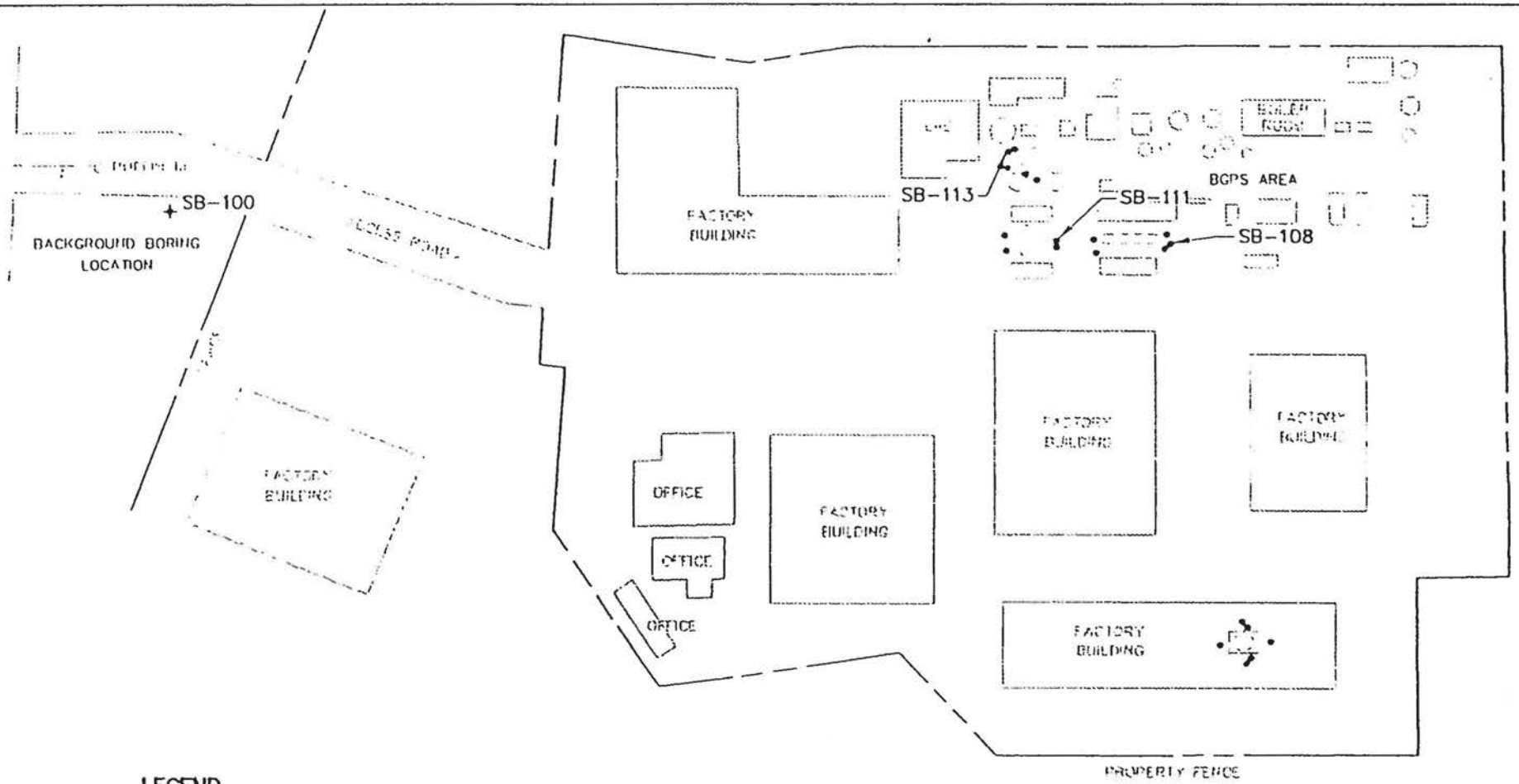
0 100

FEET

FIGURE 1

LOCATION OF SOIL BORINGS

DUDEK & ASSOCIATES, INC.



LEGEND

- ● SOIL BORING LOCATION
- BELOW GRADE PROCESSING STRUCTURE (BGPS)
- ✦ BACKGROUND BORING LOCATION

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

FIGURE 2

LOCATION OF BACKGROUND BORING

0 150

FEET

DUDEK & ASSOCIATES, INC.

46201CHE.DWG

Table 1
Summary of Metal Analytical Results

etal Analyte	STLC mg/l	TTLC mg/kg	Concentration in milligrams per kilogram (mg/kg)				
			SB113-15.4	SB111-15.5	SB108-14.0	SB100-13.0	SB100-15.0
Silver	5	500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aluminum	- - -	- - -	15,300	25,100	7,120	5,110	4,800
Arsenic	5	500	1.3	1.2	1.2	2.5	1.0
Barium	100	10,000	28.5	48.2	21.7	44.3	40.5
Beryllium	0.75	75	< 0.5	0.5	0.6	0.6	0.6
Cadmium	1	100	< 0.5	< 0.5	< 0.5	< 3	< 0.5
Cobalt	80	8000	12.5	7.9	5.9	4.1	3.4
Chromium	560	2500	16.0	12.0	16.4	11.3	10.9
Copper	25	2500	9.1	7.3	16.2	5.5	4.5
Mercury	0.2	20	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Molybdenum	350	3500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	20	2000	68.8	4.7	3.6	3.0	3.8
Lead	5	1000	4.2	2.3	2.6	2.7	3.6
Antimony	15	500	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Selenium	1	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Titanium	- - -	- - -	636	1020	438	697	365
Thallium	7	700	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	24	2400	33.8	20.3	84.9	33.7	24.2
Zinc	250	5000	61.9	19.9	22.0	19.4	23.0

mg/kg = milligrams per kilogram
mg/l = milligrams per liter
--- = STLC or TTLC value not established

STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morenouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 305213

RECEIVED
JUN 3 1993
DUDEK & ASSOC.

June 02, 1993

DUDEK & ASSOCIATES, INC.
605 THIRD STREET
ENCINITAS, CA 92024

Project Name: CASPIAN KEARNEY MESA
Project # : 462-01

Attention: PETER QUINLAN

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
May 18, 1993	5	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

The results of these analyses and the quality control data are enclosed.

ROBERT L MANRIQUEZ
PROJECT MANAGER

M. E. Shigley
LABORATORY MANAGER

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : DUDEK & ASSOCIATES, INC.
Project # : 462-01
Project Name: CASPIAN KEARNEY MESA

Report Date: June 02, 1993
ATI I.D. : 305213

ATI #	Client Description	Matrix	Date Collected
1	SB113-15.4	SOIL	18-MAY-93
2	SB111-15.5	SOIL	18-MAY-93
3	SB108-14.0	SOIL	18-MAY-93
4	SB100-13.0	SOIL	18-MAY-93
5	SB100-15.0	SOIL	18-MAY-93

---TOTALS---

Matrix	# Samples
SOIL	5

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : DUDEK & ASSOCIATES, INC.
Project # : 462-01
Project Name: CASPIAN KEARNEY MESA

ATI I.D.: 30521

Analysis	Technique/Description
EPA 6010 (ALUMINUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ANTIMONY)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BARIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BERYLLIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COBALT)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COPPER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (LEAD)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MOLYBDENUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (NICKEL)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SILVER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (TITANIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (VANADIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ZINC)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 7060 (ARSENIC)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7131 (CADMIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7471 (MERCURY)	ATOMIC ABSORPTION/COLD VAPOR
EPA 7740 (SELENIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7841 (THALLIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : DUDEK & ASSOCIATES, INC.
Project # : 462-01
Project Name: CASPIAN KEARNEY MESA

ATI I.D.: 30521:

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	SB113-15.4	SOIL	18-MAY-93	18-MAY-93
2	SB111-15.5	SOIL	18-MAY-93	18-MAY-93
3	SB108-14.0	SOIL	18-MAY-93	18-MAY-93
4	SB100-13.0	SOIL	18-MAY-93	18-MAY-93
5	SB100-15.0	SOIL	18-MAY-93	18-MAY-93

Parameter	Units	1	2	3	4	5
SILVER	MG/KG	<1.0	<1.0	<1.0	<1.0	<1.0
ALUMINUM	MG/KG	15300	25100	7120	5110	4800
ARSENIC	MG/KG	1.3	1.2	1.2	2.5	1.0
BARIUM	MG/KG	28.5	48.2	21.7	44.3	40.5
BERYLLIUM	MG/KG	<0.5	0.5	0.6	0.6	0.6
CADMIUM	MG/KG	<0.5	<0.5	<0.5	<3@H	<0.5
COBALT	MG/KG	12.5	7.9	5.9	4.1	3.4
CHROMIUM	MG/KG	16.0	12.0	16.4	11.3	10.9
COPPER	MG/KG	9.1	7.3	16.2	5.5	4.5
MERCURY	MG/KG	<0.25	<0.25	<0.25	<0.25	<0.25
MOLYBDENUM	MG/KG	<1.0	<1.0	<1.0	<1.0	<1.0
NICKEL	MG/KG	68.8	4.7	3.6	3.0	3.8
LEAD	MG/KG	4.2	2.3	2.6	2.7	3.6
ANTIMONY	MG/KG	<3.0	<3.0	<3.0	<3.0	<3.0
SELENIUM	MG/KG	<1.0	<1.0	<1.0	<1.0	<1.0
TITANIUM	MG/KG	636	1020	438	697	365
THALLIUM	MG/KG	<1.0	<1.0	<1.0	<1.0	<1.0
VANADIUM	MG/KG	33.8	20.3	84.9	33.7	24.2
ZINC	MG/KG	61.9	19.9	22.0	19.4	23.0

@H DETECTION LIMIT ELEVATED DUE TO MATRIX INTERFERENCE

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

DUP/MS

Page

Client : DUDEK & ASSOCIATES, INC.
Project # : 462-01
Project Name: CASPIAN KEARNEY MESA

ATI I.D. : 30521

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
ALUMINUM	305240-02	MG/KG	6450	7090	9	N/A	242	N/A*
ANTIMONY	305240-02	MG/KG	<3.0	<3.0	0	15.5	48.3	32
ARSENIC	305240-02	MG/KG	1.5	1.6	6	51.9	49.7	101
BARIUM	305240-02	MG/KG	93.6	84.8	10	177	96.7	86
BERYLLIUM	305240-02	MG/KG	<0.5	<0.5	0	45.9	48.3	95
CADMIUM	305240-02	MG/KG	<0.5	<0.5	0	41.7	49.7	84
CHROMIUM	305240-02	MG/KG	57.8	62.4	8	92.7	48.3	72
COBALT	305240-02	MG/KG	6.2	6.5	5	96.5	96.7	93
COPPER	305240-02	MG/KG	5.7	6.2	8	51.6	48.3	95
LEAD	305240-02	MG/KG	3.7	6.1	49@R	48.1	48.3	92
MERCURY	305213-05	MG/KG	<0.25	<0.25	0	0.92	0.96	96
MOLYBDENUM	305240-02	MG/KG	1.5	1.6	6	88.0	96.7	89
NICKEL	305240-02	MG/KG	4.5	4.4	2	49.0	48.3	92
SELENIUM	305240-02	MG/KG	<1.0	<1.0	0	27.6	29.8	93
SILVER	305240-02	MG/KG	<1.0	<1.0	0	42.1	48.3	87
THALLIUM	305240-02	MG/KG	<1.0	<1.0	0	52.8	49.7	106
TITANIUM	305240-02	MG/KG	725	766	5	N/A	48.3	N/A*V
VANADIUM	305240-02	MG/KG	25.7	27.0	5	117	96.7	94
ZINC	305240-02	MG/KG	25.6	29.4	14	73.5	48.3	99

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

*V SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE.
@R RPD LIMIT IS 67% FOR INORGANIC RESULTS LESS THAN TEN TIMES THE REPORTING DETECTION LIMIT.

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Page

Client : DUDEK & ASSOCIATES, INC.
Project # : 462-01
Project Name: CASPIAN KEARNEY MESA

ATI I.D. : 30521

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ALUMINUM	36328	MG/KG	<20	240	250	96
ANTIMONY	36167	MG/KG	<3.0	48.0	50.0	96
ARSENIC	36175	MG/KG	<1.0	53.4	50.0	107
BARIUM	36167	MG/KG	<0.5	96.7	100	97
BERYLLIUM	36167	MG/KG	<0.5	46.6	50.0	93
CADMIUM	36221	MG/KG	<0.5	50.4	50.0	101
CHROMIUM	36167	MG/KG	<0.5	46.8	50.0	94
COBALT	36167	MG/KG	<1.0	95.0	100	95
COPPER	36167	MG/KG	<1.0	48.6	50.0	97
LEAD	36167	MG/KG	<1.5	46.8	50.0	94
MERCURY	36168	MG/KG	<0.25	0.95	1.00	95
MOLYBDENUM	36167	MG/KG	<1.0	96.1	100	96
NICKEL	36167	MG/KG	<1.0	47.6	50.0	95
SELENIUM	36291	MG/KG	<1.0	33.7	30.0	112
SILVER	36167	MG/KG	<1.0	45.4	50.0	91
THALLIUM	36311	MG/KG	<1.0	53.1	50.0	106
TITANIUM	36328	MG/KG	<0.5	49.3	50.0	99
VANADIUM	36167	MG/KG	<0.5	95.0	100	95
ZINC	36167	MG/KG	1.9	47.5	50.0	91

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

ACCESSION #: 305213 INITIALS: SMC

SAMPLE CONDITION UPON RECEIPT CHECKLIST
(FOR RE-ACCESSIONS, COMPLETE #7 THRU #9)

1	Does this project require special handling according to NEESA Levels C, D, AFOEHL or CLP protocols? If yes, complete a) thru c) a) Cooler temperature _____ b) pH sample aliquoted: yes / no / n/a c) LOT #'s: _____	YES	NO
2	Are custody seals present on cooler?	YES	NO
	If yes, are seals intact? N/A	YES	NO
3	Are custody seals present on sample containers?	YES	NO
	If yes, are seals intact? N/A	YES	NO
4	Is there a Chain-Of-Custody (COC)*?	YES	NO
5	Is the COC* complete? Relinquished: yes/no Requested analysis: yes/no	YES	NO
6	Is the COC* in agreement with the samples received? # Samples: yes/no Sample ID's: yes/no Matrix: yes/no # containers: yes/no	YES	NO
7	Are the samples preserved correctly?	YES	NO
8	Is there enough sample for all the requested analyses?	YES	NO
9	Are all samples within holding times for the requested analyses?	YES	NO
10	Were the samples received cold?	YES	NO
11	Were all sample containers received intact (ie. not broken, leaking, etc.)?	YES	NO
12	Are samples requiring no headspace, headspace free? N/A	YES	NO
13	Are there special comments on the Chain of Custody which require client contact?	YES	N/A
14	If yes, was ATI Project Manager notified?	YES	NO

Describe "no" items: _____

Was client contacted? yes / no

If yes, Date: _____ Name of Person contacted: _____

Describe actions taken or client instructions: _____

*Or other representative documents, letters, and/or shipping memos

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

PROJECT NAME Caspian Kearney MESA

PROJECT NO. 462-01

SAMPLER(S) Gary Vargas
John Pattison

SAMPLER'S SIGNATURE [signature]

NOTE: All samples are preserved on ice in coolers.

Send Results and Invoice To:

Peter Quinlan
Dudek & Associates, Inc.
605 Third Street
Encinitas, CA 92024
Tel: 619/942-5147
Fax: 619/632-0164

Laboratory

Analytical Technologies, Inc.
5550 Morehouse Drive
San Diego, CA 92121
Tel: 619/458-9141
Fax: 619/558-2389
Attn:
Shipment Method:

#305213

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX Soil	MATRIX Ground-water	MATRIX Surface Water	FILTRATION IN FIELD YES	FILTRATION IN FIELD NO	SAMPLE CONTAINERS (INCLUDE PRESERVATION): 2 1/2 Brass Tubes					ANALYSES REQUESTED: TTLC Title 22 CAM metals						SPECIAL INSTRUCTIONS
01	SB113-16.4	18 MAY 93	1022	X					X					X						Hold for possible STLC.
02	SB111-15.5	"	1115	X					X					X						
03	SB-108-14.0	"	1322	X					X					X						
04	SB100-13.0	"	1410	X					X					X						
05	SB-100-15.0	"	1419	X					X					X						

TOTAL NUMBER OF CONTAINERS PER ANALYSIS:

TOTAL NUMBER OF CONTAINERS:

Relinquished By:	Company:	Received By:	Company:
Date: 18 MAY	Time: 15:14	Date:	Time:
Relinquished By:	Company:	Received By: [signature]	Company: ATL-SD
Date:	Time:	Date: 5-18-93	Time: 1514

Sample Receipt:

- ☑ No. of containers correct
- ☑ Received good condition/cold
- ☑ Conforms to COC document

Material Safety Data Sheet

Aluminum Company of America, 1501 Alcoa Building, Pittsburgh, PA 15219

ALCOA NO. 669G

Common Name	Phone	Date
Wrought Aluminum Products, 7XXX Series Alloys	Emergency: 412-553-4001 Chemtrec: 800-424-9300 Technical: 412-553-4649	Rev 92-12-31 Orig 90-03-16

Prepared by the Hazardous Materials Control Committee.

SECTION I. Material Description

Chemical Name & Formula: Mixture
Other Designation: 7XXX Series Alloys, C157, C185, C238, C265, C279, C281, CE94, CK38, CU31, CU38, CU94, CZ36, EA70, QC7, X7093.
Alclad 7050, Alclad 7075, Alclad 7475, Alclad 7178, Alca Plus
CAS No.: See Section II
Manufacturer: Alcoa
Product Use: Various fabricated aluminum parts and products

SECTION II. Ingredients and Occupational Exposure Limits

Hazardous ingredients are listed if they comprise ≥ 1.0% by weight. "Special Hazardous Substances" (Pennsylvania Right-to-Know Regulations) are listed if they comprise ≥ 0.01%.

For Alloys 7001, 7049, 7050, 7055, 7075, 7149, 7150, 7175, 7178, 7475, C147, C157, CE94, CU31, CU38, CU94 that may contain 0.0005% to 0.007% Beryllium (CAS No. 7440-41-7) by weight, see Sections VI and VIII for important health information.

Ingredient	CAS Number	% by Weight	Ingredient	CAS Number	% by Weight
Aluminum	(7429-90-5)	84.35 min.	Manganese	(7439-96-5)	1.5 max.
Zinc	(7440-66-6)	11.4 max.	Chromium	(7440-47-3)	0.35 max.
Magnesium	(7439-95-4)	3.7 max.	Nickel	(7440-02-0)	0.05 max.
Copper	(7440-50-8)	2.6 max.			

Occupational Exposure Limits (TWA in mg/m³ unless noted)

	ACGIH TLV	OSHA PEL
Aluminum, total dust	10.0	15 (total) 5 (respirable)
Aluminum, fume	5.0	5.0
Beryllium	2.0 μg/m³	2 μg/m³, 25 μg/m³ (ceiling) 5 μg/m³ (30-minute STEL)
Chromium, metal	0.5	1.0
Cr II & III compounds	0.5	0.5
Cr VI compounds, water soluble and certain water insoluble	0.5	0.1
Copper, fume	0.2	0.1
Magnesium oxide, fume	10.0	10 (total) 5 (respirable)
Manganese, dust	5.0 (Ceiling)	5.0 (Ceiling)
Manganese, fume	1.0, 3.0 (STEL)	1.0, 3.0 (STEL)
*Nickel, metal	1.0	1.0
Nickel, soluble compounds	0.1	0.1
Zinc oxide, fume	5.0	10 (total) 5 (respirable)
Zinc oxide, nuisance dust	10.0	10 (total) 5 (respirable)
*Ozone	0.1 ppm (ceiling)	0.1 ppm, 0.3 ppm (STEL)
*Nitric oxide	25 ppm	25 ppm
*Nitrogen dioxide	3 ppm, 5 ppm (STEL)	1 ppm (STEL)

* Refer to Section VI for processes where ozone and nitric oxide limits apply.

LD_{50} or LC_{50} found for oral, dermal or inhalation routes of administration:
Nickel: oral rat LD_{50}: 9000 mg/kg body weight
Manganese - oral rat LD_{50}: 9000 mg/kg body weight

SECTION III. Physical Data

Physical Form: Solid: Sheet, plate, wire, rod, bar, extrusions, forgings, etc.
Boiling Temperature: Not applicable
Freeze-Melt Temperature: Wide range: generally 890-1215°F (477-657°C)
Vapor Pressure (mm): Not applicable
Vapor Density (air = 1): Not applicable
Evaporation Rate: Not applicable
Specific Gravity: Not applicable
Density: Range: generally 2.70-2.86 g/cm³ (0.098-0.103 lb/in³)
Water Solubility: None
pH: Not applicable
Color: Silvery
Odor: None
Odor Threshold (ppm): Not applicable
Coefficient of water/oil distribution: Not applicable

SECTION IV. Fire and Explosion Data

Flashpoint:	Auto-Ignition Temp.:	Flammability Limits in Air: Upper: Lower:
None	Not applicable	Not applicable

Wrought aluminum products do not present fire or explosion hazards under normal conditions. Use firefighting methods and materials that are appropriate for surrounding fire.

Small chips, fine turnings, and dust may ignite readily. Use coarse water spray on chips, turnings, etc. Use Class D extinguishing agents or dry sand on fines. Do not use halogenated extinguishing agents on small chips/fines.

Dust clouds may be explosive; prevent formation of a dust cloud during processing.

Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

SECTION V. Reactivity Data

Stable under normal conditions of use, storage, and transportation.

Molten aluminum may react violently with water, rust, certain metal oxides (e.g., oxides of copper, iron, and lead) and nitrates (e.g., ammonium nitrate and fertilizers containing ammonium nitrate.

For finely divided aluminum (e.g., small chips, fines):
- With water: Generates hydrogen and heat slowly. Water/aluminum mixtures may be hazardous when confined.
- With heat: Oxidizes at a temperature-dependent rate.
- With strong oxidizers: Violent reaction with much heat generation.
- With acids and alkalies: Reacts to generate hydrogen.
- With halogenated compounds: Halogenated hydrocarbons can react violently with finely divided aluminum.

SECTION VI. Health Hazard Information (See Section II for exposure limits.)

Inhalation of excessive levels of beryllium can result in acute pneumonitis (inflammation of lung tissues). Chronic inhalation above permissible limits can produce chronic berylliosis (progressive lung disease) and systemic beryllium disease. Inhalation of beryllium has produced multiple site tumors (e.g., lung tumors) in animal studies and is a suspected human carcinogen. Beryllium is listed as a probable carcinogen by the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC Gr2B).

Hexavalent chromium (Chrome VI) may cause lung, nasal, and gastrointestinal cancer by inhalation on chronic overexposures. Chrome VI may cause pulmonary edema, asthma, kidney damage, primary irritant dermatitis, sensitization dermatitis and skin ulceration. Hexavalent chromium is listed as carcinogenic to humans by the International Agency for Research on Cancer (IARC) (Group 1). Chromium and its compounds are listed as carcinogenic by the National Toxicology Program (NTP).

Exposure to nickel dust and fume in excess of recommended limits has been associated with pneumoconiosis in animal studies. Nickel metal and its oxides are animal carcinogens when administered intratracheally, intraplurally, or intramuscularly. Certain nickel compounds have caused cancer of lungs, larynx, and paranasal sinuses by inhalation, intramuscular, intraperitoneal routes of administration in lab animals. Nickel compounds are carcinogenic to humans by inhalation as defined by the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC) (Group 1). Nickel metal is possibly carcinogenic to humans as defined by IARC (Group 2B).

Exposure to zinc oxide fume subsequent to burning, welding, and molten metal work can result in "zinc chills" (metal fume fever). Temporary symptoms can include fever, chills, nausea, vomiting, and muscular pain. Onset of symptoms occurs about 4-12 hours after exposure. Recovery is usually complete in 24-48 hours. Exposure to dust/fines presents a low health risk by inhalation.

Overexposure to copper dust/mists can cause irritation of upper respiratory tract. Chronic overexposure may result in blood disorders (e.g., anemia). Overexposure to copper fume can result in upper respiratory tract irritation, nausea, and metal fume fever.

Exposure to magnesium oxide fumes may cause metal fume fever. Temporary symptoms can include fever, chills, nausea, vomiting, and muscular pain. Exposure to magnesium metal or oxide dust should be a low health risk by inhalation and should be treated as a nuisance dust.

Overexposure to manganese oxide fumes may cause metal fume fever. Chronic overexposure to manganese dust or fumes may cause nervous system disorders, (e.g, manganism) pneumonitis, and fibrosis of lung tissue.

Aluminum dust/fines and fumes are a low health risk by inhalation. For standard operations (e.g., milling, cutting, grinding), aluminum should be treated as a nuisance dust and is so defined by the American Conference of Governmental Industrial Hygienists (ACGIH).

Welding aluminum, plasma arc cutting, and arc spray metalizing can generate ozone. Overexposure to ozone can result in mucous membrane irritation as well as pulmonary changes including irritation, congestion, and edema. Welding fumes have been defined as possibly carcinogenic to humans by the International Agency for Research on Cancer (IARC) (Group 2B).

When plasma arc cutting with auxiliary gases containing nitrogen, the exposure limits for oxides of nitrogen can be exceeded. **Nitrogen dioxide** can cause irritation of eyes, nose, throat and delayed pulmonary edema. Short exposure to very high concentrations (>250 ppm) may cause pulmonary edema and death. **Nitric oxide** is a severe eye, skin, and mucuous membrane irritant; it may cause formation of methemoglobin and subsequent action on the central nervous system. Nitrogen monoxide can be fatal if inhaled at very high concentrations (>100 ppm).

Some aluminum products are supplied with an oil coating which protects them from moisture penetration. Prolonged or repeated skin contact with these oils or residual processing lubricants may cause skin irritation due to defatting action on the skin.

First Aid:
Inhalation: Immediately remove to fresh air. If breathing has stopped, provide oxygen and respiration. Consult a physician.
Skin and eyes: If irritation develops, consult a physician.

SECTION VII. Spill, Leak & Disposal Procedures

Collect scrap for remelting.

RCRA Hazardous Waste No.: If material is to be disposed, TCLP leachate testing for chromium is recommended to determine if waste is RCRA hazardous.

SECTION VIII. Special Protection and Precautions

Molten aluminum and water can be an explosive combination. The risk is greatest when there is sufficient molten metal to entrap or seal off the water. If confined, even a few drops of water can lead to violent explosions. Drops of molten aluminum in water (e.g., plasma arc cutting), while not normally an explosion hazard, can generate enough flammable hydrogen gas to present an explosion hazard. Circulation of the water and removal of the metal particles minimize the hazards.

The presence of airborne beryllium has been detected during the welding of aluminum alloys with beryllium content at only 0.002% by weight.

Use with adequate ventilation to meet exposure limits as listed in Section II. Where the exposure limit is or may be exceeded, use NIOSH approved respiratory protection. Select the appropriate respirator (e.g. dust and fume respirator) based on concentrations of actual or potential airborne contaminants present.

Persons who handle metal manually should wear impervious gloves to avoid repeated exposures to residual lubricants or other lubricants on the metal, which may have been added for protection against corrosion. Gloves will also help to prevent cuts due to sharp edges on the metal.

SECTION IX. Regulatory Information

Components of this product are listed on the TSCA inventory (USA), the Domestic Substances List (Canada), and the EINECS core inventory (EC Market).

Beryllium, Chromium, and Nickel are listed by Pennsylvania as "Special Hazardous Substance" under Pennsylvania Worker and Community Right-to-Know Regulations.

Beryllium, Hexavalent chromium, and Nickel are known to the State of California to cause cancer (California Prop. 65).

For purposes of SARA III reporting, this substance contains the following listed ingredient/s:

Aluminum (fume/dust), Beryllium, Chromium, Copper, Manganese, Nickel, Zinc - Section 313.

For purposes of CERCLA reporting, this substance contains the following listed ingredients:

Beryllium, Chromium, Copper, Nickel, Zinc.

If particulates or fumes are generated during processing, this material would fit the EPA Hazard Category definition of Immediate (Acute) and Delayed (Chronic) Health Hazards under SARA Sections 311, 312.

If molten, this material would fit the EPA Hazard Category of Reactive Hazard under SARA Sections 311, 312.

D.O.T. Shipping Name, Hazard Class, I.D. No. (if applicable) Not Regulated
Canadian TDG Hazard Class & PIN -- Not Regulated

SECTION X. References

For specific information on special hazards, reference these Alcoa MSDSs:

Molten Aluminum - MSDS No. 478
Remelt Ingot - MSDS Nos. 682-689
Atomized Aluminum Powder & Granules - MSDS Nos. 123 and 125

Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made

PREPARED BY DISTRIBUTOR:
Castle Metals®
. M. CASTLE & CO.
400 N. Wolf Road
ranklin Park, IL 60131

MATERIAL SAFETY DATA SHEET

ISSUE DATE: November 25, 1985

REVISED:

INFORMATION AND EMERGENCY NUMBER:
(312) 455-7111 (8am - 5pm Mon-Fri)
(312) 455-8986 (After Hour Emergency)

ECTION 1 - PRODUCT IDENTIFICATION

ANUFACTURER'S NAME: Various

ODUCT NAME / TRADE NAME: Titanium

COMMON NAME / GRADE: Titanium CP, Titanium 6-4, etc.

SECTION 2 - HAZARDOUS INGREDIENTS

OTE: PRODUCTS UNDER NORMAL CONDITIONS DO NOT REPRESENT AN INHALATION, INGESTION OR CONTACT HEALTH HAZARD.

BASE METAL, ALLOYING ELEMENTS AND METALLIC COATINGS	% COMPOSITION BY WEIGHT (1)	ACGIH TLV (mg/m³) (2)
Base Metal		
Titanium	46-99	10 (Total Dust)
Alloying Elements		
Aluminum (Al)	0-6	10
Vanadium (V)	0-10	10 (Total Dust)
Iron (Fe)	0-48	5 (As Iron Oxide)
Molybdenum (Mo)	0-6	10 (Insoluble Compound)
Tin (Sn)	0-5	2
Zirconium (Zr)	0-4	5
Manganese (Mn)	0-5	5 (As Dust-Ceiling)
Tantalum (Ta)	<1	5
Titanium 6-2-2-2 + 5-2-2-4-4 + 3-8-6-4-4		
Chromium (Cr)	2-6	.5
Titanium 2.5 + 6-2-1-1		
Copper (Cu)	2-2.5	1 (Dust and Mist)
Titanium .3 - .8		
Nickel (Ni)	.8	1

(1) % OF ALLOYING MATERIAL VARIES WITH GRADE OF MATERIAL. (2) 1985-1986 ACGIH THRESHOLD LIMIT VALUE.

ECTION 3 - PHYSICAL DATA

ERIAL IS (AT NORMAL CONDITIONS): Solid

APPEARANCE AND ODOR: Gray Metallic, Odorless

LTING POINT (BASE METAL): 1560-1840° C

SPECIFIC GRAVITY: NA

ECTION 4 - FIRE AND EXPLOSION

XTINGUISHING MEDIA: See Special Precautions

IAL FIRE FIGHTING PROCEDURES: See Special Precautions

SUAL FIRE AND EXPLOSION HAZARDS: This product does not burn, however, grinding or polishing this product in the absence of oxygen, such as under water, can result in a finely divided waste which is ignitable.

CTION 5 - REACTIVITY DATA

ILITY: Stable

INCOMPATABILITY (MATERIALS TO AVOID): NA

NDITIONS TO AVOID: See Special Precautions

RDOUS DECOMPOSITION PRODUCTS: Metallic dust or fumes may be produced during welding, burning, grinding and possibly machining. Refer to ANSI Z49.1

PRODUCT Titanium

ION 6 - HEALTH HAZARD DATA

E: STEEL PRODUCTS IN THE NATURAL STATE DO NOT PRESENT AN INHALATION, INGESTION OR CONTACT HAZARD. HOWEVER, OPERATIONS SUCH AS BURNING, WELDING, SAWING, BRAZING AND GRINDING MAY RELEASE FUMES AND/OR DUSTS WHICH MAY PRESENT HEALTH HAZARDS IF TLV'S ARE EXCEEDED.

EXPOSURE HAZARD:

NHALATION ☐ SKIN CONTACT ☐ SKIN ABSORPTION ☐ EYE CONTACT ☐ INGESTION

OF OVEREXPOSURE

The toxicity of titanium dioxide has been found to be relatively inert. Skin contact with titanium dust may cause physical abrasian. Eye contact with pure material has shown particulate irritation.

Aluminum and molybdenum dust/fines and fumes are low health risk by inhalation and should be treated as a nuisance dust.

Inhalation of high concentrations of freshly formed oxide fumes of iron, manganese and copper may cause metal fume fever, characterized by a metallic taste in the mouth, dryness and irritation of the throat and influenza-like symptoms.

Chromium and nickel and their compounds are listed in the 3rd Annual Report on carcinogens, as prepared by the National Toxicology Program (NTP). Exposure to high concentrations of dust and fumes can cause sensitization dermatitus, inflammation and/or ulceration of upper respiratory tract and possible cancer of nasal passages and lungs.

Recent epidemiological studies of workers melting and working alloys containing nickel/chromium have found no increased risk of cancer.

CY AND FIRST AID PROCEDURES

If exposed to excessive levels of metal fumes, remove to fresh air, seek medical aid immediately.

yes - Flush with water for at least 15 minutes.

ION 7 - SPILL OR LEAK PROCEDURES

EAK PROCEDURES

SPOSAL METHODS

According to local, state and federal regulations.

ON 8 - SPECIAL PROTECTION

TORY

NIOSH/MSHA - Approved dust and fume, respirator should be used to avoid excessive inhalation of particulates when exposure exceeds TLV's.

TION

Local exhaust ventilation should be utilized when welding, burning, sawing, brazing, grinding or machining when exposure exceeds TLV's.

CTION AND PROTECTIVE CLOTHING

Safety glasses or goggles should be utilized as required by exposure. Other protective equipment should be utilized as required by the welding standards.

N 9 - SPECIAL PRECAUTIONS

If ignitable waste is generated, special precautions and firefighting procedures should be followed:

1) Keep work areas free of the waste.
2) Store wet and keep away from heat and open flame - maintain humidity above 60% to prevent an electrostatic build-up.
3) No smoking in area.
4) Use non-sparking metal equipment.
5) Extinguishing media: dry chemical powders, salts or inert gas. Do not use water or liquid: explosion hazard could result.

mation in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, express regarding the accuracy or correctness.

itions or methods of handling storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do e responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the

ts of individual manufacturers may be obtained by contacting A. M. Castle & Co., 3400 N. Wolf Road, Franklin Park, IL 60131 Attn: Corp. Safety Mgr.

SECTION VI. Health Hazard Information (See Section II for exposure limits.)

Inhalation of excessive levels of beryllium can result in acute pneumonitis (inflammation of lung tissues). Chronic inhalation above permissible limits can produce chronic berylliosis (progressive lung disease) and systemic beryllium disease. Inhalation of beryllium has produced multiple site tumors (e.g., lung tumors) in animal studies and is a suspected human carcinogen. Beryllium is listed as a probable carcinogen by the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC Gr2B).

Hexavalent chromium (Chrome VI) may cause lung, nasal, and gastrointestinal cancer by inhalation on chronic overexposures. Chrome VI may cause pulmonary edema, asthma, kidney damage, primary irritant dermatitis, sensitization dermatitis and skin ulceration. Hexavalent chromium is listed as carcinogenic to humans by the International Agency for Research on Cancer (IARC) (Group 1). Chromium and its compounds are listed as carcinogenic by the National Toxicology Program (NTP).

Exposure to nickel dust and fume in excess of recommended limits has been associated with pneumoconiosis in animal studies. Nickel metal and its oxides are animal carcinogens when administered intratracheally, intraplurally, or intramuscularly. Certain nickel compounds have caused cancer of lungs, larynx, and paranasal sinuses by inhalation, intramuscular, intraperitoneal routes of administration in lab animals. Nickel compounds are carcinogenic to humans by inhalation as defined by the National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC) (Group 1). Nickel metal is possibly carcinogenic to humans as defined by IARC (Group 2B).

Exposure to zinc oxide fume subsequent to burning, welding, and molten metal work can result in "zinc chills" (metal fume fever). Temporary symptoms can include fever, chills, nausea, vomiting, and muscular pain. Onset of symptoms occurs about 4-12 hours after exposure. Recovery is usually complete in 24-48 hours. Exposure to dust/fines presents a low health risk by inhalation.

Overexposure to copper dust/mists can cause irritation of upper respiratory tract. Chronic overexposure may result in blood disorders (e.g., anemia). Overexposure to copper fume can result in upper respiratory tract irritation, nausea, and metal fume fever.

Exposure to magnesium oxide fumes may cause metal fume fever. Temporary symptoms can include fever, chills, nausea, vomiting, and muscular pain. Exposure to magnesium metal or oxide dust should be a low health risk by inhalation and should be treated as a nuisance dust.

Overexposure to manganese oxide fumes may cause metal fume fever. Chronic overexposure to manganese dust or fumes may cause nervous system disorders, (e.g, manganism) pneumonitis, and fibrosis of lung tissue.

Aluminum dust/fines and fumes are a low health risk by inhalation. For standard operations (e.g., milling, cutting, grinding), aluminum should be treated as a nuisance dust and is so defined by the American Conference of Governmental Industrial Hygienists (ACGIH).

Welding aluminum, plasma arc cutting, and arc spray metalizing can generate ozone. Overexposure to ozone can result in mucous membrane irritation as well as pulmonary changes including irritation, congestion, and edema. Welding fumes have been defined as possibly carcinogenic to humans by the International Agency for Research on Cancer (IARC) (Group 2B).

Caspian, 2005

107-938

CASPIAN INC.

4951 Ruffin Road
San Diego, California 92123-1698
Telephone: (619) 279-3110
Facsimile: (619) 279-9618
OUR AREA CODE IS NOW **858**

RECEIVED
2005 DEC 14 AM 8 20
MAILROOM

December 12, 2005

Ms. Lisa Leondis, EHS III
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, CA 92112

Dear Ms. Leondis:

This letter is in response to your letter dated October 13, 2005.

Attached are the tank closure certifications you requested. The 55 gal. drums that formally contained hazardous materials have been returned to the original supplier for deposit credit. The containers that formally contained non-hazardous materials are scheduled for recycling.

Caspian reserves its right to supplement or modify this letter to the extent necessary.

Please feel free to contact me (619) 871-3110.

Sincerely,

Cyrus A. Jaffari
President

CAJ:jal:2283

File # 107938

RECEIVED
DEC 14 AM 8 20
MAILROOM

SAN DIEGO COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH - CUPA
HAZARDOUS MATERIALS DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2377
1-800-253-9933

HAZARDOUS WASTE TANK CLOSURE CERTIFICATION

Page 1 of 1

I. FACILITY IDENTIFICATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As): CASPIAN INC.
FACILITY ID#: 3 7 0 0 0

TANK OWNER NAME: CASPIAN INC.

TANK OWNER ADDRESS: 4951 RUFFIN RD

TANK OWNER CITY: SAN DIEGO STATE: CA ZIP CODE: 92123

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS	Tank ID # (Attach additional copies of this page for more than three tanks)	Concentration of Flammable Vapor: Top	Center	Bottom	Concentration of Oxygen: Top	Center	Bottom
	1 TANK #17	0	0	0	20.9	20.9	20.9
	2 TANK #27	0	0	0	20.9	20.9	20.9
	3						

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinseate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER: Michael A. Schmidt

NAME OF CERTIFIER (print): MICHAEL A. SCHMIDT NFPA CERTIFIED MARINE CHEMIST

TITLE OF CERTIFIER: MARINE CHEMIST #642

ADDRESS: 737 TERRA NOVA DRIVE

CITY: CHULA VISTA

PHONE: (619) 421-8295

DATE: 12/7/04 CERTIFICATION TIME: 1530

STATUS OR AFFILIATION OF CERTIFYING PERSON

Certifier is a representative of the CUPA, authorized agency, or LIA: ☐ Yes ☐ No

Name of CUPA, authorized agency, or LIA:

If certifier is other than CUPA / LIA check appropriate box below:

- ☐ a. Certified Industrial Hygienist (CIH)
- ☐ b. Certified Safety Professional (CSP)
- ☒ c. Certified Marine Chemist (CMC)
- ☐ d. Registered Environmental Health Specialist (REHS)
- ☐ e. Professional Engineer (PE)
- ☐ f. Class II Registered Environmental Assessor
- ☐ g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)

TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS

(If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) ☐ Yes ☒ No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC:

DO NOT USE ADJACENT TKS & KEEP THEM COVERED WHILE SCRAPPING TANKS (CAUD TKS)

A copy of this certificate shall accompany the tank to the recycling / disposal facility and be provided to the CUPA. If there is no CUPA, copies shall be submitted to the LIA and authorized agency, owner / operator of the tank system, removal contractor, and the recycling / disposal facility.

RECEIVED
2005 DEC 14 PM 8 20
HAZARDOUS

SAN DIEGO COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH - CUPA
HAZARDOUS MATERIALS DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2377
1-800-253-9933

HAZARDOUS WASTE TANK CLOSURE CERTIFICATION

I. FACILITY IDENTIFICATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As): CASPIAN, INC.
FACILITY ID#: 3 7 0 0 0

TANK OWNER NAME: CASPIAN, INC.

TANK OWNER ADDRESS: 4951 RUFFIN RD.

TANK OWNER CITY: SAN DIEGO STATE: CA ZIP CODE: 92123

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS	Tank ID # (Attach additional copies of this page for more than three tanks)	Concentration of Flammable Vapor: Top	Center	Bottom	Concentration of Oxygen: Top	Center	Bottom
1	C-01	Ø	Ø	Ø	20.9	20.9	20.9
2	C-02	Ø	Ø	Ø	20.9	20.9	20.9
3	C-03	Ø	Ø	Ø	20.9	20.9	20.9

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinseate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER: [signature]

NAME OF CERTIFIER (Print): JAMES FARNER

TITLE OF CERTIFIER: PROJECT MANAGER

ADDRESS: 9119 BIRCH AVE.

CITY: SPRING VALLEY

PHONE: 619.463.1126

DATE: 12/2003 CERTIFICATION TIME: 0815

STATUS OR AFFILIATION OF CERTIFYING PERSON

Certifier is a representative of the CUPA, authorized agency, or LIA: ☐ Yes ☐ No

Name of CUPA, authorized agency, or LIA:

If certifier is other than CUPA / LIA check appropriate box below:

- ☐ a. Certified Industrial Hygienist (CIH)
- ☐ b. Certified Safety Professional (CSP)
- ☐ c. Certified Marine Chemist (CMC)
- ☐ d. Registered Environmental Health Specialist (REHS)
- ☐ e. Professional Engineer (PE)
- ☐ f. Class II Registered Environmental Assessor
- ☒ g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)

TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS

(If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) ☐ Yes ☒ No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC:

A copy of this certificate shall accompany the tank to the recycling / disposal facility and be provided to the CUPA. If there is no CUPA, copies shall be submitted to the LIA and authorized agency; owner / operator of the tank system, removal contractor; and the recycling / disposal facility.

2005 DEC 14 AM 8 20

MAILROOM

SAN DIEGO COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH - CUPA
HAZARDOUS MATERIALS DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2377
1-800-253-9933

HAZARDOUS WASTE TANK CLOSURE CERTIFICATION

I. FACILITY IDENTIFICATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3 Caspian, Inc.	FACILITY ID#	3	7		0	0	0	.	1	0	7	9	3	8 1

TANK OWNER NAME 740
Caspian, Inc.

TANK OWNER ADDRESS 741
4951 Ruffin Road

TANK OWNER CITY San Diego 742 | STATE CA 743 | ZIP CODE 92123- 744

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS		Tank ID # (Attach additional copies of this page for more than three tanks)	Concentration of Flammable Vapor			Concentration of Oxygen		
			Top	Center	Bottom	Top	Center	Bottom
	1	18 745	0 746a	0 746b	0 746c	20.9 747a	20.9 747b	20.9 747c
	2	28 748	0 749a	0 749b	0 749c	20.9 750a	20.9 750b	20.9 750c
	3	caustic tank 751	0 752a	0 752b	0 752c	20.9 753a	20.9 753b	20.9 753c

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinseate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER

REGISTERED PROFESSIONAL ENGINEER BROOKS W. PAULY 65459 Exp 9/30/07 CIVIL STATE OF CALIFORNIA

NAME OF CERTIFIER (Print) 754
Brooks Pauly

TITLE OF CERTIFIER 755
Senior Professional Engineer

ADDRESS 756
9040 Friars Road, Suite 220

CITY 757
San Diego

PHONE 758
(619) 285-7134 x

DATE 759
16-Nov-2005

CERTIFICATION TIME
13:30

STATUS OR AFFILIATION OF CERTIFYING PERSON

Certifier is a representative of the CUPA, authorized agency, or LIA: 760

☐ Yes ☒ No

Name of CUPA, authorized agency, or LIA: 761
Department of Environmental Health

If certifier is other than CUPA / LIA check appropriate box below: 762

☐ a. Certified Industrial Hygienist (CIH)
☐ b. Certified Safety Professional (CSP)
☐ c. Certified Marine Chemist (CMC)
☐ d. Registered Environmental Health Specialist (REHS)
☒ e. Professional Engineer (PE)
☐ f. Class II Registered Environmental Assessor
☐ g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)

TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS 763

(If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) ☐ Yes ☒ No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC:
Waste from tanks has been disposed of off-site; ownership of tanks has been transferred to Stu Segal Productions (see attached documents).

A copy of this certificate shall accompany the tank to the recycling / disposal facility and be provided to the CUPA. If there is no CUPA, copies shall be submitted to the LIA and authorized agency; owner / operator of the tank system; removal contractor; and the recycling / disposal facility.

SAN DIEGO COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH - CUPA
HAZARDOUS MATERIALS DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2377
1-800-253-9933

HAZARDOUS WASTE TANK CLOSURE CERTIFICATION

I. FACILITY IDENTIFICATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3	FACILITY ID#	3	7		0	0	0		1	0	7	9	3	8 1
Caspian, Inc.														

TANK OWNER NAME 740
Caspian, Inc.

TANK OWNER ADDRESS 741
4951 Ruffin Road

TANK OWNER CITY San Diego 742 | STATE CA 743 | ZIP CODE 92123- 744

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS	Tank ID # (Attach additional copies of this page for more than three tanks)	Concentration of Flammable Vapor			Concentration of Oxygen		
		Top	Center	Bottom	Top	Center	Bottom
1	26 745	0 746a	0 746b	0 746c	20.9 747a	20.9 747b	20.9 747c
2	16 748	0 749a	0 749b	0 749c	20.9 750a	20.9 750b	20.9 750c
3	751	752a	752b	752c	753a	753b	753c

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinseate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER

REGISTERED PROFESSIONAL ENGINEER BROOKS W. PAULY 65459 Exp. 9/30/07 CIVIL STATE OF CALIFORNIA

NAME OF CERTIFIER (Print) 754
Brooks Pauly

TITLE OF CERTIFIER 755
Senior Professional Engineer

ADDRESS 756
9040 Friars Road, Suite 220

CITY 757
San Diego

PHONE 758
(619) 285-7134 x

DATE 759
16-Nov-2005

CERTIFICATION TIME
13:30

STATUS OR AFFILIATION OF CERTIFYING PERSON

Certifier is a representative of the CUPA, authorized agency, or LIA: 760
☐ Yes ☒ No

Name of CUPA, authorized agency, or LIA: 761
Department of Environmental Health

If certifier is other than CUPA / LIA check appropriate box below: 762
☐ a. Certified Industrial Hygienist (CIH)
☐ b. Certified Safety Professional (CSP)
☐ c. Certified Marine Chemist (CMC)
☐ d. Registered Environmental Health Specialist (REHS)
☒ e. Professional Engineer (PE)
☐ f. Class II Registered Environmental Assessor
☐ g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)

TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS 763
(If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) ☐ Yes ☒ No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC:
Waste from tanks has been disposed of off-site; ownership of tanks has been transferred to Stu Segal Productions (see attached documents).

A copy of this certificate shall accompany the tank to the recycling / disposal facility and be provided to the CUPA. If there is no CUPA, copies shall be submitted to the LIA and authorized agency; owner / operator of the tank system; removal contractor; and the recycling / disposal facility.

ASSIGNMENT

THIS ASSIGNMENT made by and between Caspian Inc. ("Assignor"), and Stu Segall Productions ("Assignee"):

WITNESSETH, that for valuable consideration in hand paid by the Assignee to the Assignor, receipt of which is hereby acknowledged, the Assignor hereby assigns and transfers to the Assignee all of his right, title and interest in and to all buildings, equipment, tools, cranes, tanks, fixtures and other ancillary items located at 4951 Ruffin Rd., San Diego, California, as set forth in the Lease Agreement between Caspian Inc. and Stu Segall Productions. Provided, however, no warranties of any kind whatsoever are made incident to this Assignment.

IN WITNESS WHEREOF, the Assignor has executed this Assignment and is effective on the day and year of the expiration of the Lease Agreement mentioned above.

By: _____
Cyrus A. Jaffari, President
Caspian Inc.

Arkansas Department of Environmental Quality
Hazardous Waste Division
P.O. Box 8913, Little Rock, AR 72219-8913
Telephone: (501) 682-0833

5

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

Form Approved. OMB No. 2050-0039

AR-2-90

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD028512886
Manifest Document No. 87445
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN INC
P.O. BOX 1149
PINE VALLEY CA 91962
4. Generator's Phone (619) 771-3110

A. State Manifest Document Number AR- 1589445
B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CAD000057092
C. State Transporter's ID: H-
D. Transporter's Phone: 562 427-7277

7. Transporter 2 Company Name: MAUMEE EXPRESS (I.D. #770)
8. US EPA ID Number: ND0866607380
E. State Transporter's ID: H-
F. Transporter's Phone: 986-628-6339

9. Designated Facility Name and Site Address
RINECO
1007 VULCAN ROAD - HASKELL
BENTON AR 72015
10. US EPA ID Number: AAD981057870
G. State Facility's ID
H. Facility's Phone: 501 778-9089

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, WASTE FLAMMABLE LIQUID, N.O.S., 3, UN1993, PGII (METHYL ETHYL KETONE, TOLUENE)	001	~~DM~~ DF	00055	G	D001
b. RQ, WASTE FLAMMABLE LIQUID, N.O.S., 3, UN1993, PGII (METHYL ETHYL KETONE, TOLUENE)	003	DM	00117	G	D001
c. HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, PGIII (RESIN, TOLUENE)	001	~~DM~~ DF	00055	G	F005
d.					

J. Additional Descriptions for Materials Listed Above
11A) CASP-MIXED - MIXED FLAMMABLE LIQUIDS 11A. EPA_CODES : F005
11B) CASP-MIXED - MIXED FLAMMABLE LIQUIDS 11B. EPA_CODES : F005
~~11C) CASP-RESIN - RESIN WITH TOLUENE~~
if no alternate TSDF, return to generator

K. Emergency Response Information:
EMERGENCY CALL ENVIROSERV.
(562) 427-7277

15. Special Handling Instructions and Additional Information
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. #28356 ** LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO, CA 92123

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, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state 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: Arnold T. Bauer
Signature:
Month Day Year: 01 [illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

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:

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

Copy Manual

Environmental Protection Agency
OMB No 2050-0039 (Expires 9-30-99)
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See Instructions on back of Page 1

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD052851356
Manifest Document No.: 07805
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.: 594720

3. Generator's Name and Mailing Address
CASPIAN, INC.
P.O. BOX 1149
PINE VALLEY CA 91962
4. Generator's Phone: 619 871-3110

A. State Manifest Document Number: 24407805
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA0008970392
C. State Transporter's ID (Reserved.):
D. Transporter's Phone: (562)427-7277

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID (Reserved.):
F. Transporter's Phone:

9. Designated Facility Name and Site Address
TERIS - WEST
1737 EAST DENNI ST.
WILMINGTON CA 90744
10. US EPA ID Number: CAD044429835
G. State Facility's ID: CAD044429835
H. Facility's Phone: (310)835-0775

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), UN2920, PGII (CYCLOHEXLAMINE)	001	DF	00005	G	State 331 / EPA/Other D002
b. RQ, WASTE AMINES, LIQUID, CORROSIVE, N.O.S., 8, UN2735, PGII	001	DF	00055	G	State 791 / EPA/Other D002
c. RQ, WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., 8, UN3266, PGIII (SODIUM SULFITE)	001	DF	00005	G	State 122 / EPA/Other D002
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A, 132, 11B, 153, 11C, 154
11A) 1512853 - CYCLOHEXYLAMINE SOLUTION 11A. EPA CODES: D001
11B) 1512854 - CORROSION INHIBITOR CLEANING COMPOUND
11C) 1512852 - SODIUM SULFITE SOLUTION

K. Handling Codes for Wastes Listed Above
a. 99/07 b. 99/07
c. 99/07 d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
* ERS W.O.# 26634 ** LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO, CA 92123

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: RICHARD T REMIAS
Signature: [signature]
Month Day Year: 09 29 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Juan M Gomez
Signature: [signature]
Month Day Year: 09 29 05

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

19. Discrepancy Indication Space

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20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Robert Newsham
Signature: [signature]
Month Day Year: 10 03 05

DO NOT WRITE BELOW THIS LINE.

RN

Yellow. TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

SC 8022A (1/99)
A 8700—22

...rnia—Environmental Protection Agency
...ved OMB No. 2050-0039 (Expires 9-30-99)
...int or type. Form designed for use on elite (12-pitch) ...ter.

See Instructions on back of Page 6.

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Department of ... Control
...

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CAD055839306 — Manifest Document No: 07685
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASPIAN, INC.
P.O. BOX 1149
PINE VALLEY CA 91962

4. Generator's Phone (519 871-3110

A. State Manifest Document Number: 24407685

B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA0000970392

C. State Transporter's ID [Reserved.]

D. Transporter's Phone: (562) 427-7277

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID [Reserved.]

F. Transporter's Phone:

9. Designated Facility Name and Site Address
DEMENNO KERDOON
2000 NORTH ALAMEDA STREET
COMPTON CA 90222

10. US EPA ID Number: CAT080013352

G. State Facility's ID: CAT080013352

H. Facility's Phone: (310) 537-7100

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE, LIQUID (OIL, PENETRANT)	002	DM	00110	G	State 223 / EPA/Other NONE
b. NON RCRA HAZARDOUS WASTE, LIQUID (OIL, PENETRANT)	002	DF	00110	G	State 223 / EPA/Other NONE
c.					State / EPA/Other
d.					State / EPA/Other

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DeMENNO/KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352.

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A. NONE, 11B. NONE
11A) CASP-OIL5 - MIXED OIL5 AND PENETRANT
11B) CASP-OIL5 - MIXED OIL5 AND PENETRANT

K. Handling Codes for Wastes Listed Above
a. 01 b. 01
c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. # 28355 ** LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO, CA 92123

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Printed/Typed Name	Signature	Month Day Year
RICHARD T REMIAS	[signature]	09 29 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Juan M Gomez	[signature]	09 29 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

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
Armando Tiscareño	[signature]	10 05 05

DO NOT WRITE BELOW THIS LINE.

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Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

24407685

...ia—Environmental Protection Agency
...d OMB No 2050-0039 (Expires 9-30-99)
or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD059598988 Manifest Document No. 076639
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CASPIAN, INC.
P.O. BOX 1149
PINE VALLEY CA 91962
4. Generator's Phone 619 871-3110

A. State Manifest Document Number 24407639
B. State Generator's ID
C. State Transporter's ID [Reserved.] NA
D. Transporter's Phone (562) 427-7277

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CAD009703952
7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
PHIBRO TECH
8051 DICE ROAD
SANTA FE SPRINGS CA 90670
10. US EPA ID Number: CAD008295025
G. State Facility's ID CAD098148025
H. Facility's Phone (562) 698-8036

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, UN3264, PGII (HYDROFLORIC ACID, NITRIC ACID)	010	TP	02750	G	State 792 / EPA/Other D002
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

RECEIVED OCT 17 2005

J. Additional Descriptions for Materials Listed Above
NAERG # 11A 154
11A) 20020135A - TITANIUM ETCHANT 11A EPA CODES D007 NO H on tote S.
Misc Acid

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 * BILL TO ENVIROSERV * USE PROPER SAFETY EQUIPMENT
* ERS W.O # 28338 * LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO, CA 92123

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.

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GENERATOR — Printed/Typed Name: RICHARD T REMIAS — Signature — Month 04 Day 29 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials
TRANSPORTER — Printed/Typed Name: JUAN M GOMEZ — Signature — Month 04 Day 29 Year 05

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

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Ramiro Martinez — Signature — Month 10 Day 03 Year 05

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

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EPA 8700—22

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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD052851366
Manifest Document No.: 07638
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN, INC.
P.O. BOX 1149
PINE VALLEY CA 91962
4. Generator's Phone (619)871-3119

A. State Manifest Document Number: 24407638
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA000097932
C. State Transporter's ID [Reserved.]:
D. Transporter's Phone: (562)427-7277

7. Transporter 2 Company Name: INERY TRANSPORTATION
8. US EPA ID Number: CAR000148197
E. State Transporter's ID [Reserved.]:
F. Transporter's Phone: 562-254-1188

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003
10. US EPA ID Number: NVT330010000
G. State Facility's ID:
H. Facility's Phone: (775)553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, UN3262, PGII (SODIUM HYDROXIDE)	001	CM	00020	Y	State: 181; EPA/Other: NONE
b.					State: ; EPA/Other:
c.					State: ; EPA/Other:
d.					State: ; EPA/Other:

J. Additional Descriptions for Materials Listed Above
NAERG # 11A-154
11A) 07-013-5369-0 - CAUSTIC TANK BOTTOMS

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. # 28337 ** LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO CA 92123

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.

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Printed/Typed Name	Signature	Month Day Year
Austreberto Sucid	[signature]	09 29 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Julio Ochoa	Julio Ochoa	09 29 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Victor Estrada	[signature]	10 03 05

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
Misty Brooks	[signature]	10 09 05

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

Environmental Protection Agency
OMB No. 2050-0039 (Expires 9-30-99)
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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CAD053651398 — Manifest Document No: 07637
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CASPIAN, INC.
P.O. BOX 1149
PINE VALLEY CA 91962

4. Generator's Phone (619 871-3110

A. State Manifest Document Number: 24407637

B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA0000970392

C. State Transporter's ID (Reserved.)

D. Transporter's Phone: (562) 427-7277

7. Transporter 2 Company Name: IMERY TRANSPORTATION
8. US EPA ID Number: CAR000148197

E. State Transporter's ID (Reserved.)

F. Transporter's Phone: 562-254-1188

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003

10. US EPA ID Number: NVT330010000

G. State Facility's ID:

H. Facility's Phone: (775) 553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE, SOLID (DEBRIS, POWDERS)	002	CM	00040	Y	State 352; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A: NONE
11A) 07-012-6330-252 - MISC. NON RCRA SOLIDS

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
** ERS W.O.# 28336 ** LK
SITE: 4951 RUFFIN ROAD, SAN DIEGO, CA 92123

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.

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Printed/Typed Name	Signature	Month Day Year
Austerberto Garcia	[signature]	09 28 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
JULIO OCHOA	Julio Ochoa	09 28 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
VICTOR ESTRADA	[signature]	09 29 05

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
LAMAN WALTZ	[signature]	09 29 05

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

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EPA 8700—22

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Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: 6 1 0 1 6 1 6
Manifest Document No.
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASFOAM INC.
1651 BURTON ROAD
SANTEE CA 92120
4. Generator's Phone 1 619 391 3449

A. State Manifest Document Number: 24660796
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number:
C. State Transporter's ID [Reserved]
D. Transporter's Phone: (562) 427 7277

7. Transporter 2 Company Name: Imary Transportation
8. US EPA ID Number: C A R 0 0 0 9 1 4 9 9 1 2
E. State Transporter's ID [Reserved]
F. Transporter's Phone: 562 254 11 55

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003
10. US EPA ID Number:
G. State Facility's ID:
H. Facility's Phone: (775) 553 2200

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, UN3262, PGII (SODIUM HYDROXIDE)	001	CM	00020	Y	State 124; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A 154
11A) 07-013-5889-0 - CAUSTIC TANK BOTTOMS

K. Handling Codes for Wastes Listed Above
a. 03
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
*- ERS W.O. # 27591 *LK
SITE

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.

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Printed/Typed Name	Signature	Month	Day	Year
Humberto Garcia	[signature]	08	31	05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JULIO OCHOA	Julio Ochoa	08	31	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Juan Luis Balderas	[signature]	09	01	05

FACILITY

19. Discrepancy Indication Space

RECEIVED OCT 13 2005

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
Tom Dyson	[signature]	09	7	05

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

...rnia—Environmental Protection Agency
...ed OMB No. 2050-0039 (Expires 9-30-99)
...or type. Form designed for use on elite (12-pitch) ...iter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 60770 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN, INC
4951 RUFFIN ROAD
SAN DIEGO CA 92123

4. Generator's Phone (619 871 3410

A. State Manifest Document Number 24660770

B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number

C. State Transporter's ID [Reserved.]

D. Transporter's Phone (562) 427-7277

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID [Reserved.]

F. Transporter's Phone

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone (775) 553-2202

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, UN3262, PGII (SODIUM HYDROXIDE)	001	CIM	00020	Y	State 191 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A 154
11A) 07-013-5389-0 - CAUSTIC TANK BOTTOMS

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. # 27591 ** LK
SITE:

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.

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Printed/Typed Name	Signature	Month Day Year
RICHARD T REMINS	[signature]	08 30 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
JOSE CARON	[signature]	08 30 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

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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
[signature]	[signature]	09 06 05

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

...nmental Protection Agency
...B No. 2050-0039 (Expires 9-30-99)
...type Form designed for use on elite (12-pitch) ...r.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. d a d o s s s s 1 2 4 6 — Manifest Document No. 60765

2. Page 1 of

Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN INC
4951 RUFFIN ROAD
SAN DIEGO CA 92123

4. Generator's Phone (619 571-1110

A. State Manifest Document Number 24660765

B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC

6. US EPA ID Number: c a d o o o s 7 3 3 9 2

C. State Transporter's ID [Reserved.]

D. Transporter's Phone (562) 427-7277

7. Transporter 2 Company Name: Imery Transportation

8. US EPA ID Number: CAR000148197

E. State Transporter's ID [Reserved.]

F. Transporter's Phone 562 254 1155

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003

10. US EPA ID Number: x v m 2 2 0 0 2 4 6 6 9

G. State Facility's ID

H. Facility's Phone (775) 553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, UN3262, PGII (SODIUM HYDROXIDE)	001	CM	00020	Y	State 181 / EPA/Other NONE
b.					State / EPA/Other
c					State / EPA/Other
d					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A - 154
11A) 07-013-5389-0 - CAUSTIC TANK BOTTOMS

K. Handling Codes for Wastes Listed Above
a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277 ** BILL TO ENVIROSERV ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. # 27591 ** LK
SITE:

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Printed/Typed Name	Signature	Month	Day	Year
Richard T Remias	[signature]	08	24	05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JULIO OCHOA	Julio Ochoa	08	24	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Jose L Bolaños	[signature]	09	02	05

19. Discrepancy Indication Space

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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
[signature]	[signature]	09	02	05

DO NOT WRITE BELOW THIS LINE.

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EPA 8700—22

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

...o—Environmental Protection Agency
...s OMB No. 2050-0039 (Expires 9-30-99)
...or type. Form designed for use on elite (12-pitch)

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD015B1851136 Manifest Document No. 01712 85
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASTIAN INC
[illegible] ROAD
[illegible] CA 92123
4. Generator's Phone 858 277-3110

A. State Manifest Document Number 24507285
B. State Generator's ID

5. Transporter 1 Company Name: HAZ-TECH INC.
6. US EPA ID Number: CAD008418825
C. State Transporter's ID [Reserved] NA
D. Transporter's Phone 562-698-8036

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID [Reserved]
F. Transporter's Phone

9. Designated Facility Name and Site Address
HAZ-TECH INC.
8351 DICE ROAD
SANTA FE SPRINGS, CA 90670
10. US EPA ID Number: CAD008418825
G. State Facility's ID CAD008418825
H. Facility's Phone 562-698-8036

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, INORGANIC, N.O.S. (FERRIC SULFATE) 8, UN3264, PG II	001	TT	018510	G	State 792 / EPA/Other D002
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NA ERG # 11A) 154
11A) 2005 0017 IA - DEOXIDIZER SOLUTION
MISC AZ 10

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT
** ERS W.O. # 25190-DD ** SITE:

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.

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GENERATOR — Printed/Typed Name: RICHARD T. REMINS — Signature: [signature] — Month 05 Day 18 Year 05

TRANSPORTER
17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Howard Larson — Signature: [signature] — Month 05 Day 18 Year 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: Ramiro Martinez — Signature: [signature] — Month 05 Day 18 Year 05

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

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EPA 8700—22

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IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

ornia—Environmental Protection Agency
oved OMB No. 2050-0039 (Expires 9-30-99)
nt or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of Page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD052838513 Manifest Document No. 618111
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CASPIAN, INC.
4051 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858)279-3110

A. State Manifest Document Number 24511168
B. State Generator's ID
C. State Transporter's ID [Reserved.] NA
D. Transporter's Phone (562)698-8035

5. Transporter 1 Company Name: PHIBRO TECH INC.
6. US EPA ID Number: CAD004849025
7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID [Reserved.]
F. Transporter's Phone

9. Designated Facility Name and Site Address
PHIBRO TECH INC
8851 DICE ROAD
SANTA FE SPRINGS CA 90670
10. US EPA ID Number: CAD004849025

G. State Facility's ID CAD004849025
H. Facility's Phone (562)698-8035

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., ~~8,~~ ~~UN3264, PGII (NITRIC ACID, FERRIC SULFATE)~~ 8, UN3264, PG II	001	TT	04400	G	State 792 / EPA/Other D002
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A 154
(1A) 20050017 1A DEOXIDIZER SOLUTION
Misc Acid
DOT E5166

K. Handling Codes for Wastes Listed Above
a. 01-15 b.
c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 25190- DD **
SITE:

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Printed/Typed Name	Signature	Month	Day	Year
RICHARD T REMIAS	Richard T Remias	05	17	05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Howard Larson		05	17	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
Ramiro Martinez		05	17	05

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

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See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD098651366 — Manifest Document No.: 1 1 1 67
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858 279-3110

A. State Manifest Document Number: 24511167
B. State Generator's ID: N
C. State Transporter's ID [Reserved.]: N/A
D. Transporter's Phone: (562)698-8036
E. State Transporter's ID [Reserved.]:
F. Transporter's Phone:
G. State Facility's ID: CAD008488025
H. Facility's Phone: (562)698-8036

5. Transporter 1 Company Name: PHIBRO TECH INC.
6. US EPA ID Number: CAD008488025
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address
PHIBRO TECH INC
8851 DICE ROAD
SANTA FE SPRINGS CA 90670
10. US EPA ID Number: CAD008488025

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., ~~8, UN3264, PGII~~ (NITRIC ACID, FERRIC SULFATE) 8, UN3264 PG-II	001	TT	04300	G	State 792; EPA/Other D002
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A - 154
11A) 20050017 IA - DEOXIDIZER SOLUTION
Misc ACID
DOT-E9166

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 25190-DD **
SITE:

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Printed/Typed Name	Signature	Month	Day	Year
RICHARD T REMINS	[signature]	05	12	05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Howard Larson	[signature]	05	13	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space
Box B, received 4762 gallons per weight ticket number 74626

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
[illegible]	[signature]	05	12	05

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

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DTSC 8022A (1/99)
EPA 8700—22

...onmental Protection Agency
...o. 2050-0039 (Expires 9-30-99)
Form designed for use on elite (12-pitch) t...

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD008081266 — Manifest Document No.: 1 1 1 69
2. Page 1 of 1

Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN, INC
4951 RUFFIN ROAD
SAN DIEGO CA 92123

4. Generator's Phone (858) 279-3150

A. State Manifest Document Number: 24511169

B. State Generator's ID: N

5. Transporter 1 Company Name: PHIBRO TECH INC

6. US EPA ID Number: CAD008408025

C. State Transporter's ID [Reserved.]: NA

D. Transporter's Phone: (562)698-8036

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID [Reserved.]:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
PHIBRO TECH INC
8851 DICE ROAD
SANTA FE SPRINGS CA 90670

10. US EPA ID Number: CAD008488025

G. State Facility's ID: CAD008488025

H. Facility's Phone: (562)698-8036

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., ~~8, UN3264, PG II~~ (NITRIC ACID, FERRIC SULFATE) 8, UN3264, PG II	001	TT	04300	G	State 792 / EPA/Other D002
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A 154
11A) 20050017 IA- DEOXIDIZER SOLUTION
Misc Acid

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 25190- DD **
SITE:

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Printed/Typed Name	Signature	Month	Day	Year
Austreberto Garcia	[signature]	05	10	05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Howard Larson	[signature]	05	10	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space
Item 13, should read 4342 gallons, per weight ticket number 74593

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
Ramiro Martinez	[signature]	05	10	05

GENERATOR — TRANSPORTER — FACILITY

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DTSC 8022A (1/99)
EPA 8700—22

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Environmental Protection Agency
OMB No. 2050-0039 (Expires 9-30-99)
Print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD052969111 Manifest Document No. 11055
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASHMAN, INC
4551 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858) 279-5110

A. State Manifest Document Number 24511055
B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CAD099099092
C. State Transporter's ID [Reserved.]
D. Transporter's Phone (562) 427-7277

7. Transporter 2 Company Name: Cummings Trans.
8. US EPA ID Number: CAD981143562
E. State Transporter's ID [Reserved.]
F. Transporter's Phone 800-397-2336

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003
10. US EPA ID Number: NVT330010000
G. State Facility's ID
H. Facility's Phone (775) 553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, HAZARDOUS WASTE SOLID, N.O.S., 9, NA9077, PGIII (FILTERCAKE)	001	CM	000210	Y	State 181; EPA/Other F005
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG # 11A, 171
11A) 07-012-8960 - FILTERCAKE
Bin R18778M

K. Handling Codes for Wastes Listed Above
a. 99-03
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 25033- LK **
SITE.

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Printed/Typed Name: Christopher Garcia
Signature: [signature]
Month 01 Day 13 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Julio Orion
Signature: Julio Orion
Month 01 Day 02 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Baggerly
Signature: David Baggerly
Month 05 Day 11 Year 05

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: Rusty Bond
Signature: [signature]
Month 05 Day 12 Year 05

GENERATOR
TRANSPORTER
FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

RECEIVED JUN 20 2005

Yellow — TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700-22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type Form designed for use on elite (12-pitch)

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD053851366 — Manifest Document No.: 28219
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address: CASPIAN, INC. 4951 RUFFIN ROAD SAN DIEGO CA, 92123
4. Generator's Phone (858) 279-3110
A. State Manifest Document Number: 23828219
B. State Generator's ID:
5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES
6. US EPA ID Number: CA0000970392
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (562) 427-7277
7. Transporter 2 Company Name: Imery Transportation
8. US EPA ID Number: CAR000148197
E. State Transporter's ID [Reserved]
F. Transporter's Phone: (562) 254-1188
9. Designated Facility Name and Site Address: US ECOLOGY HWY 95, 12 MILES SOUTH BEATTY NV. 89003
10. US EPA ID Number: NVT330010000
G. State Facility's ID:
H. Facility's Phone: (775) 553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID, (DEBRIS, POWDERS)	006	BA	06000	P	State 352; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: NV07-012-8390-232 NON RCRA SOLIDS

K. Handling Codes for Wastes Listed Above: a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV · 1-562-427-7277
* BILL TO ENVIRONMENTAL RECOVERY SERVICES *
* USE PROPER SAFETY EQUIPMENT *

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: RICHARD T REMIAS — Signature: Richard T Remias — Month 05 Day 02 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Juan M Gomez — Signature: [signature] — Month 05 Day 02 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Victor Estrada — Signature: [signature] — Month 05 Day 06 Year 05

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: Misty Bucock — Signature: [signature] — Month 05 Day 06 Year 05

GENERATOR / TRANSPORTER / FACILITY

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

...ia—Environmental Protection Agency
...ed OMB No. 2050-0039 (Expires 9-30-99)
...nt or type. Form designed for use on elite (12-pitch) t...

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CAD053851266 Manifest Document No: 11096
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858)279-3110

A. State Manifest Document Number: 24511096
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CAD009709392
C. State Transporter's ID [Reserved.]: NA
D. Transporter's Phone: (562)427-7277

7. Transporter 2 Company Name: PHIBRO TECH INC.
8. US EPA ID Number: CAD008488025
E. State Transporter's ID [Reserved.]: NA
F. Transporter's Phone: 562 698-8036

9. Designated Facility Name and Site Address
PHIBRO TECH
9851 DICE ROAD
SANTA FE SPRINGS CA 90670
10. US EPA ID Number: CAD008488025
G. State Facility's ID: CAD008488025
H. Facility's Phone: (562)698-8036

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE PHOSPHORIC ACID, LIQUID, 8, UN1805, PGII	001	DF	00055	G	State 791; EPA/Other D002
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A 134
11A CASP-PHOS: PHOSPHORIC ACID 20050481A
MISC ACID

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.#25123-LK **
SITE:

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: RICHARD T REMIAS
Signature: Richard T Remias
Month 05 Day 02 Year 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SILAS GROSS
Signature: Silas Gross
Month 05 Day 02 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Ramiro Martinez
Signature: [illegible]
Month 05 Day 04 Year 05

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: PHILLIPE KIK
Signature: [illegible] ON BEHALF OF STS
Month 05 Day 14 Year 05

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; within Canada, call ...

DO NOT WRITE BELOW THIS LINE.

Yellow. TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

RECEIVED JUN 15 2005

DTSC 8022A (1/99)
EPA 8700—22

...ifornia—Environmental Protection Agency
...oved OMB No 2050-0039 (Expires 9-30-99)
...int or type. Form designed for use on elite (12-pitch) t...

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD059851965
Manifest Document No.: 11033
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858 279-3110

A. State Manifest Document Number: 24511033
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA0000970332
C. State Transporter's ID [Reserved]
D. Transporter's Phone: (562)427-7277

7. Transporter 2 Company Name: Imery Transportation
8. US EPA ID Number: CAR000148197
E. State Transporter's ID [Reserved]
F. Transporter's Phone: (562)254-1188

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003
10. US EPA ID Number: NVT330010000
G. State Facility's ID:
H. Facility's Phone: (775)553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE, SOLID (DEBRIS, POWDERS)	002	BA	02000	P	State 352 / EPA/Other NONE
b. NON RCRA HAZARDOUS WASTE, SOLID (DEBRIS, POWDERS)	002	CF	02000	P	State 352 / EPA/Other NONE
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A: NONE, 11B: NONE
11A) 07-012-8390-232 - MISC. NON RCRA SOLIDS
11B) 07-012-8390-232 - MISC. NON RCRA SOLIDS

K. Handling Codes for Wastes Listed Above
a. 03
b. 03
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O # 24879- GT **
SITE:

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: RICHARD T REMIAS
Signature: Richard T Remias
Month 05 Day 02 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SILAS GROSS
Signature: Silas Gross
Month 05 Day 02 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Victor Estrada
Signature: [signature]
Month 05 Day 06 Year 05

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: Misty Brooks
Signature: Misty Brooks
Month 05 Day 10 Year 05

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

RECEIVED JUN 20 2005

Arkansas Department of Environmental Quality
Hazardous Waste Division
P.O. Box 8913, Litt[illegible]ck, AR 72219-8913
Telephone: (501) 682-0833

1

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. CAD053851366	Manifest Document No. 58220	2. Page 1 of 2	Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123

4. Generator's Phone (858 279-3110

A. State Manifest Document Number: AR- 1558220
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA000097039 2
C. State Transporter's ID: H-
D. Transporter's Phone: 562 427-7277

7. Transporter 2 Company Name: Teris
8. US EPA ID Number: ARD069748192
E. State Transporter's ID: H- 119.1
F. Transporter's Phone: 870-863-7173

9. Designated Facility Name and Site Address
TERIS - AR
309 AMERICAN CIRCLE
EL DORADO AR 71730
10. US EPA ID Number: ARD069748192
G. State Facility's ID:
H. Facility's Phone: 870 864-2216

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE ALUMINUM CHLORIDE, ANHYDROUS, 8, UN1726, PGII	001	DF	00010	P	551 D003
b. WASTE CORROSIVE LIQUID, TOXIC, N.O.S., 8, UN2922, PGII (PARACHLOROBENZOTRIFLUORIDE)	001	DF	00010	P	551 D002
c. WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., 8, UN3266, PGII	001	DF	00075	P	551 D002
d. WASTE AMINES, LIQUID, CORROSIVE, N.O.S., 8, UN2735, PGII	001	DF	00050 (5.6)	P	551 D002

J. Additional Description for Materials Listed Above
11A. 137, 11B. 154, 11C. 154, 11D. 153
11A) 1497857-13 - AL CHLORIDE ANHYDR LP- DM #13
11B) 1497857-14 - CORR LIQ TOXIC LP- DM #14
11C) 1497857-15 - CORR LIQ BASIC INORG LP- DM #15
11D) 1497857-16 - AMINE LIQ CORRO LP- DM #16
if no alternate TSDF, return to generator 151

K. Emergency Response Information
EMERGENCY CALL ENVIROSERV 1-
562-427-7277

15. Special Handling Instructions and Additional Information
** BILL TO ENVIRONMENTAL RECOVERY SERVICES **
USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 24879- GT **
SITE:

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, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state 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: RICHARD T REMIAS
Signature: Richard T Remias
Month Day Year: 05 02 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SILAS GROSS
Signature: Silas Gross
Month Day Year: 05 02 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Lionel Wainford
Signature: L Wainford
Month Day Year: 05 09 05

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: Laurie Tucker
Signature: Laurie Tucker
Month Day Year: 05 24 05

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.
[illegible] AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREATMENT/

EMERGENCY CONTACT TELEPHONE NUMBER

...RM HAZARDOUS ...ASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.: C A D 0 5 3 8 5 1 3 6 6
Manifest Document No.: 58220
Page: 2 of 2
Information in the shaded areas is not required by Federal law.

...enerator's Name
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
858 279-3110

L. State Manifest Document Number: AR-1558220
M. State Generator's ID:

24. Transporter 3 Company Name: Smith System
25. US EPA ID Number: WED986382133
N. State Transporter's ID: 1100
O. Transporter's Phone: 308-632-5108

26. Transporter ___ Company Name:
27. US EPA ID Number:
P. State Transporter's ID:
Q. Transporter's Phone:

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM		29. Containers No	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.		WASTE CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, UN3265, PGII	001	D F	00010	P	551 D002
b							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above
28A)1497857-17 - CORR LIQ ACID ORG LP, DM #17

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
28a) ERG: 153 28d) ERG: 28g) ERG:
28b) ERG: 28e) ERG: 28h) ERG:
28c) ERG: 28f) ERG: 28i) ERG:

TERIS-AR

33. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SILAS GROSS
Signature: Silas Gross
Date: Month 05 Date 02 Year 05

33. Transporter 3 Acknowledgement of Receipt of Materials
Printed/Typed Name: GARY SAENZ
Signature:
Date: Month 05 Date 11 Year 05

35. Discrepancy Indication Space

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

Hazardous Waste Division
P.O. Box 8913, Little Rock, AR 72219-8913
Telephone: (501) 682-0833

1

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: CA D 0 5 3 8 5 1 3 6 6
Manifest Document No. 58219
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858) 279-3110

A. State Manifest Document Number: AR- 1558219
B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA 0 0 0 0 9 7 0 3 9 2
C. State Transporter's ID H-
D. Transporter's Phone 562 427-7277

7. Transporter 2 Company Name: Teris
8. US EPA ID Number: ARD069748192
E. State Transporter's ID H- 119
F. Transporter's Phone 870 862 7173

9. Designated Facility Name and Site Address
TERIS - AR
309 AMERICAN CIRCLE
EL DORADO AR 71730
10. US EPA ID Number: ARD069748192
G. State Facility's ID
H. Facility's Phone 870 864-2216

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a WASTE FLAMMABLE LIQUID, N.O.S., 3, UN1993, PGII	001	DM	00225	P	551 D001
b WASTE FLAMMABLE LIQUID, N.O.S., 3, UN1993, PGII	001	DM	00225	P	551 D001
c WASTE FLAMMABLE LIQUID, TOXIC, N.O.S., 3, UN1992, PGII (PERCHLOROETHYLENE)	001	DF	00050	P	551 D001
d WASTE FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, UN1325, PGII	001	DF	00015	P	551 D001

J. Additional Descriptions for Materials Listed Above
11A. 128, 11B. 128, 11C. 131, 11D. 133
11A) 1497857-01 - FLAMM LIQ LP- DM # 01
11B) 1497857-02 - FLAMM LIQ LP- DM # 02 11B. EPA_CODES : F003, F005
11C) 1497857-03 - FLAMM LIQ TOXIC LP- DM # 03 11C. EPA CODES : D039, F002
11D) 1497857-04 - FLAMM SOLID ORG LP- DM # 04
835
if no alternate TSDF, return to generator.

K. Emergency Response Information
EMERGENCY CALL ENVIROSERV 1-
562-427-7277

15. Special Handling Instructions and Additional Information
** BILL TO ENVIRONMENTAL RECOVERY SERVICES **
USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 24878- GT **
SITE:

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, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
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Printed/Typed Name: RICHARD T REMIAS
Signature: Richard T Remias
Month Day Year: 05 02 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SILAS GROSS
Signature: Silas Gross
Month Day Year: 05 02 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Lequel Wakefield
Signature: L Wakefield
Month Day Year: 05 09 05

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: Jaime Fuller
Signature: Jaime Fuller
Month Day Year: 05 24 05

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREATMENT/

EMERGENCY CONTACT TELEPHONE NUMBER

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

2. Generator's US EPA ID No. CAD053851366

Manifest Document No

22. Page 2 of 2

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

23. Generator's Name
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
858 279-3110

L. State Manifest Document Number AR-1558219
M. State Generator's ID

24. Transporter 3 Company Name: Smith System
25. US EPA ID Number: WED986382133

N. State Transporter's ID: 1100
O. Transporter's Phone: 308-632-5748

26. Transporter ___ Company Name
27. US EPA ID Number

P. State Transporter's ID
Q. Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	29. Containers No	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	WASTE OXIDIZING LIQUID, N.O.S., 5.1, UN3139, PGII	01	DF	00015	P	551 D001
b	WASTE OXIDIZING SOLID, N.O.S., 5.1, UN1479, PGII	01	DF	00075	P	551 D001
c.	WASTE HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1, UN2014, PGII	01	DF	00010	P	551 D001
d.	WASTE SODIUM AZIDE, 6.1, UN1687, PGII	01	DF	00010	P	551 P105
e.	WASTE ARSENIC TRIOXIDE, 6.1, UN1561, PG II	01	DF	00075	P	551 D004
f.	WASTE TOXIC LIQUID, ORGANIC, N.O.S., 6.1, UN2810, PGII (1,1,1-TRICHLOROETHANE)	01	DF	00075	P	551 F002
g.	WASTE TOXIC SOLID, INORGANIC, N.O.S., 6.1, UN3288, PGII (LEAD ACETATE)	01	DF	00015	P	551 D008
h.	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, 8, UN3264, PGII	01	DF	00175	P	551 D002
i.				SG 1751		

S. Additional Descriptions for Materials Listed Above
28A)1497657-05 - OXIDIZ LIQ LP- DM #05
28B)1497657-06 - OXIDIZ SOLID LP- DM #06
28C)1497657-07 - HY PEROXIDE AQ SOLN LP- DM #07
28D)1497657-08 - SOD AZIDE LP- DM #08
28E)1497650 - ARSENIC TRIOXIDE, SOLID
28F)1497657-10 - TOX LIQ ORG LP- DM #10
28G)1497657-11 - TOX SOLID INORG LP- DM #11
28H)1497657-12 - CORR LIQ ACID INORG LP- DM #12

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
28a) ERG: 140 28d) ERG: 153 28g) ERG: 151
28b) ERG: 140 28e) ERG: 151 28h) ERG: 154
28c) ERG: 140 28f) ERG: 153 28i) ERG:

TERIS-AR

GENERATOR

TRANSPORTER

33. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: SILAS GROSS — Signature: Silas Gross — Month Date Year: 05 02 05

33 Transporter 3 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: GARY SAAR — Signature: [illegible] — Month Date Year: 05 11 05

FACILITY

35. Discrepancy Indication Space

ORIGINAL - RETURN TO GENERATOR

Environmental Protection Agency
OMB No. 2050-0039 (Expires 9-30-99)
Type. Form designed for use on elite (12-pitch) [illegible]iter

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD053651366
Manifest Document No.: 01971
2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CASPIAN, INC
4951 RUFFIN ROAD
SAN DIEGO CA 92123

4. Generator's Phone (858) 279-3110

A. State Manifest Document Number: 24401971

B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC
6. US EPA ID Number: CAD009970692

C. State Transporter's ID [Reserved.]

D. Transporter's Phone: (562) 427-7277

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID [Reserved.]

F. Transporter's Phone:

9. Designated Facility Name and Site Address
US ECOLOGY
HWY 95, 12 MILES SOUTH
BEATTY NV 89003

10. US EPA ID Number: NVT220010000

G. State Facility's ID:

H. Facility's Phone: (775) 553-2203

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, HAZARDOUS WASTE, SOLID, N.O.S., 9, NA3077, PGIII (FILTERCAKE)	001	CM	00020	Y	State 191 / EPA/Other F006
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A: 171
11A) 07-012-8380 - FILTERCAKE

K. Handling Codes for Wastes Listed Above
a. 03/99
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ERS W.O. # 23852 ** LK

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	Signature	Month	Day	Year
Austreberto Garcia	[signature]	03	11	05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Julio Ochoa	Julio Ochoa	03	11	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

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
Tom Dymond	[signature]	03	18	05

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

24401971

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

RECEIVED APR 1 1 2005

Environmental Protection Agency
No. 2050-0039 (Expires 9-30-99)
Form designed for use on elite (12-pitch) ...

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CAD052851366 — Manifest Document No: 01895
2. Page 1 of 01 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
CASPIAN, INC.
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858) 279-3110

A. State Manifest Document Number: 24401895
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CA0000379392
C. State Transporter's ID [Reserved]: NA
D. Transporter's Phone: (562) 427-7277

7. Transporter 2 Company Name: PHIBRO TECH INC.
8. US EPA ID Number: CAD008488025
E. State Transporter's ID [Reserved]: NA
F. Transporter's Phone: 562 698 8036

9. Designated Facility Name and Site Address
PHIBRO TECH
8851 DICE ROAD
SANTA FE SPRINGS CA 90670
10. US EPA ID Number: CAD008488025
G. State Facility's ID: CAD008488025
H. Facility's Phone: (562) 698-8036

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE HYDROCHLORIC ACID, 8, UN1789, PGII	002	DF	00110	G	State 791; EPA/Other D002
b. ~~RQ, WASTE HYDROFLUORIC ACID, 8, UN1790, PGII~~		~~DF~~		~~G~~	State ~~791~~; EPA/Other ~~D002~~
c. RQ, WASTE HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 8, UN2984, PGII	001	DF	00055	G	State 141; EPA/Other D001
d. ~~RQ, WASTE NITRIC ACID, OTHER THAN RED FUMING, 8, UN2031,~~ PGII		~~DF~~		~~G~~	State ~~791~~; EPA/Other ~~D002~~

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A, 154, ~~[illegible]~~ 11C, 140, ~~[illegible]~~
11A) CA5P-HYDROCH - HYDROCHLORIC ACID 20050053 IA Misc Acid
~~11B) CA5P-HYDROFLUOR - HYDROFLUORIC ACID~~
11C) CA5P-HYDROGEN - HYDROGEN PEROXIDE 20050052 I Misc
~~11D) CA5P-NITRIC - NITRIC ACID~~

K. Handling Codes for Wastes Listed Above
a. 01-15
b.
c. 01-15
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ** ERS W.O.# 23777-DD **

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.

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Printed/Typed Name	Signature	Month	Day	Year
RICHARD T REMIAS	Richard Tremias	03	04	05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Juan M Gomez	[signature]	03	04	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ramiro Martinez	[signature]	03	08	05

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
PHILLIPE KING	[signature] ON BEHALF OF PT#	03	17	05

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

RECEIVED MAR 24 2005

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS. (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

...nmental Protection Agency
...o. 2050-0039 (Expires 9-30-99)
...Form designed for use on elite (12-pitch) ...ter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: CAD059051366
Manifest Document No.: 01816
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN, INC
4951 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858) 279-3110

A. State Manifest Document Number: 24401816
B. State Generator's ID:

5. Transporter 1 Company Name: ENVIRONMENTAL RECOVERY SERVICES, INC.
6. US EPA ID Number: CAD000970392
C. State Transporter's ID (Reserved.)
D. Transporter's Phone: (562) 427-7277

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID (Reserved.)
F. Transporter's Phone:

9. Designated Facility Name and Site Address
U.S. FILTER RECOVERY SERVICES
5375 SOUTH BOYLE AVENUE
LOS ANGELES CA 90058
10. US EPA ID Number: CAD097030993
G. State Facility's ID:
H. Facility's Phone: (323) 277-1549

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, UN3264, PGII (NITRIC ACID, HYDROCHLORIC ACID)	001	TP	00250	G	State 792; EPA/Other D002 D007
b. RQ, WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, UN3264, PGII (NIRTIC ACID, HYDROCHLORIC ACID)	005	TP	01250	G	State 792; EPA/Other D002 D007
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
NAERG #: 11A: 154, 11B: 154
11A) P159634 - STAINLESS STEEL ETCHANT 11A EPA CODES: D007
11B) P159638 - STAINLESS STEEL ETCHANT RINSE WATER 11B EPA CODES: D007
D62876 RS35080

K. Handling Codes for Wastes Listed Above
a. 01
b. 01
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY CALL ENVIROSERV 1-562-427-7277
** BILL TO ENVIRONMENTAL RECOVERY SERVICES ** USE PROPER SAFETY EQUIPMENT ERS W.O. # 23684 ** LK

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.

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Printed/Typed Name	Signature	Month Day Year
RICHARD T REMIAS	[signature]	03 02 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Juan M Gomez	[signature]	03 02 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
R		

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
[signature]	[signature]	03 07 05

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS.
(Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700—22

RECEIVED MAR 2 2 2005

State of California—Environmental Protection Agency
Form Approved OMB No 2050-0039 (Expires 9-30-99)
Please print or type Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD093851365 | Manifest Document No. 93125 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
CASPIAN INC
4661 RUFFIN ROAD
SAN DIEGO CA 92123
4. Generator's Phone (858) 793-110

A. State Manifest Document Number: 23591385
B. State Generator's ID:

5. Transporter 1 Company Name: ASBURY ENVIRONMENTAL SERVICES
6. US EPA ID Number: CAD028277036
C. State Transporter's ID [Reserved.]
D. Transporter's Phone: (800)974-4495

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID [Reserved.]
F. Transporter's Phone:

9. Designated Facility Name and Site Address: ~~USA ECOLOGY (BANG) INC 16 MILES NW ON HWY 95 LEMMY ROAD BANG NEV~~ U.S. Ecology 12 Miles South of Beatty, NV 89003
10. US EPA ID Number: ~~NVT 330010080~~
G. State Facility's ID:
H. Facility's Phone: ~~(800) 274-1546~~ (800) 239-3943

11. US DOT Description (including ~~Proper Shipping Name~~, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA HAZARDOUS WASTE, SOLID (WOOD AND DEBRIS)	01	H C F	04200	P	State 352; EPA/Other NONE
b. ~~NON-RCRA HAZARDOUS WASTE, SOLID (FILTER CAKE)~~					State ~~352~~; EPA/Other ~~NONE~~
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: 11A, 11B
K. Handling Codes for Wastes Listed Above: a. 03 b. c. d.

15. Special Handling Instructions and Additional Information
APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT * EMERGENCY CONTACT CHEMTREC #1-800-424-9300

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.

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Printed/Typed Name: Austreberto Garcia | Signature: [signature] | Month 05 Day 21 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Sergio Rodriguez | Signature: [signature] | Month 05 Day 21 Year 04

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

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: Misty Brooks | Signature: [signature] | Month 05 Day 24 Year 04

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

23591385

DO NOT WRITE BELOW THIS LINE.

Yellow: TSDF SENDS THIS COPY TO GENERATOR WITHIN 30 DAYS (Generators who submit hazardous waste for transport out-of-state, produce completed copy of this copy and send to DTSC within 30 days.)

DTSC 8022A (1/99)
EPA 8700-22

RECEIVED JUN 2 1 2004

Collins, 1986

CASPIAN INC.
4951 Ruffin Road
San Diego, CA 92123
(619) 279-3110

file H07938

December 31, 1986
CI-87-0010

County Of San Diego
1700 Pacific Highway
San Diego, CA 92101
M/S A-21

Re: Chemical Energy Of California

Gentlemen:

Please be advised that the above corporation has been voluntarily liquidated as of December 30, 1986 into its former parent company, Caspian Inc., a California corporation. Caspian Inc. is now the sole owner of the assets of the above corporation and will carry on its business under the name "Caspian Inc.".

All correspondence and reference in the future should be made to Caspian Inc., who has assumed all of the assets and liabilities of its former subsidiary. The changes described above will not have any effect on our continuing business operations or production procedures.

Identifying information regarding Caspian Inc. is as follows: California Corporation Number 723591, Employee Identification Number 95-2912331.

I am attaching a copy of our health permit which we would like re-issued under the name "Caspian Inc.".

If you have any questions regarding this matter, please contact us.

Very Truly Yours,
CASPIAN INC.

Linda Collins

Linda Collins
Environmental Coordinator

LC/srr
Enclosure

Collins, 1992

4951 Ruffin Road
San Diego, CA 92123
(619) 279-3110
TWX: 910-335-2014

CASPIAN INC.

February 13, 1992

Mr. Richard Thurlow
County of San Diego
Department of Health Services
Hazardous Materials Management Division
P.O. Box 85261
San Diego, CA 92138-5261
LOC 748 MS D561

Dear Mr. Thurlow:

Attached are three tables summarizing the metals results which you requested. Table I summarizes the chromium results only. Table II lists all the Title 22 metals which were requested by the Hazardous Materials Management Division at a later date. Table III is a 3rd analysis to verify the results variation between Table I and Table II on SB-2 for TTLC chromium. (It appears from this 3rd analysis that the results for SB-2 given on Table I are a random error.)

The 5-ft depth sample was much smaller in volume due to impenetrable rocks at this depth. As a result, there was only enough sample to do the Cr analysis as originally requested, and not the complete laboratory analysis for Title 22 metals as was later requested.

If you have any questions or comments, please feel free to contact me at 279-3110.

Very truly yours,

Linda Collins

Linda Collins
Environmental Manager

LC:bo:0089
Attachments

TABLE I

SAMPLE DATE: December 12, 1991
COLLECTED BY: Linda Collins/Kathleen Reinert - Caspian
ANALYZED BY: Analytical Technologies, Inc.
A.T.I. ID #: 112196
ANALYTICAL METHOD: E.P.A. Method 6010 (Chromium) EPA Method 7196 (Hexavalent Chromium)
DRILLING COMPANY: Tri-County Drilling

SAMPLE IDENTIFIER	SAMPLE LOCATION	CHROMIUM HEXAVALENT	CHROMIUM WET EXTRACTION (STLC)	CHROMIUM TTLC
SB-1	Old Alodine Area	<0.2/MG/KG	<0.1 MG/L	9.2 MG/KG
SB-2	Old Alodine Area	<0.2 MG/KG	1.8 MG/L	73.6 MG/KG
SB-3	Old Alodine Area	<0.2 MG/KG	0.6 MG/L	23.3 MG/KG

SB-1 was collected at a depth of 1 (one) foot
SB-2 was collected at a depth of 3 (three) feet
SB-3 was collected at a depth of 5 (five) feet

LC:bo:0534

Analytical Technologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 1121

January 03, 1992

CASPIAN INC.
4951 RUFFIN RD.
SAN DIEGO, CA 92123

Project Name: SB1-CHROME
Project # : NW SOIL BORINGS 91-26

Attention: KATHLEEN REINERT

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
December 12, 1991	3	SOIL
December 12, 1991	3	WET EXTRACT

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in t enclosed analytical schedule. The symbol for "less than" indicates a value below the reportab detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

Carrie Smith
CARRIE SMITH
PROJECT MANAGER

Kenneth Wahl
KENNETH WAHL
LABORATORY MANAGER

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

Report Date: January 03, 1992
ATI I.D. : 112196

ATI #	Client Description	Matrix	Date Collected
1	SB1-1 (NW BORING, 1 FT)	SOIL	12-DEC-91
2	SB1-2 (NW BORING, 3 FT)	SOIL	12-DEC-91
3	SB1-3 (NW DRILL SAMPLE 5 FT)	SOIL	12-DEC-91
4	SB1-1/WET 01	WET EXTRACT	12-DEC-91
5	SB1-2/WET 02	WET EXTRACT	12-DEC-91
6	SB1-3/WET 03	WET EXTRACT	12-DEC-91

---TOTALS---

Matrix	# Samples
SOIL	3
WET EXTRACT	3

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 112196

Analysis	Technique/Description
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 7196 (HEXAVALENT CHROMIUM)	COLORIMETRIC

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 11219

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	SB1-1 (NW BORING, 1 FT)	SOIL	12-DEC-91	12-DEC-9
2	SB1-2 (NW BORING, 3 FT)	SOIL	12-DEC-91	12-DEC-9
3	SB1-3 (NW DRILL SAMPLE 5 FT)	SOIL	12-DEC-91	12-DEC-9

Parameter	Units	1	2	3
CHROMIUM, HEXAVALENT	MG/KG	<0.2	<0.2	<0.2

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 112196

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
CHROMIUM, HEXAVALENT	112297-04	MG/KG	<0.2	<0.2	0	6.1	10.0	61

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

BLANK SPIKE

Page

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 11219

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
CHROMIUM, HEXAVALENT	20756	MG/KG	<0.2	9.5	10.0	95

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 112196

Sample #	Client ID	Matrix	Date Sampled	Date Received
4	SB1-1/WET 01	WET EXTRACT	12-DEC-91	12-DEC-91
5	SB1-2/WET 02	WET EXTRACT	12-DEC-91	12-DEC-91
6	SB1-3/WET 03	WET EXTRACT	12-DEC-91	12-DEC-91

STLC

Parameter	Units	4	5	6
CHROMIUM	MG/L	<0.1	1.8	0.6

Analytical Technologies, Inc.

METALS RESULTS

Page

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 11219

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	SB1-1 (NW BORING, 1 FT)	SOIL	12-DEC-91	12-DEC-9
2	SB1-2 (NW BORING, 3 FT)	SOIL	12-DEC-91	12-DEC-9
3	SB1-3 (NW DRILL SAMPLE 5 FT)	SOIL	12-DEC-91	12-DEC-9

TTLC

Parameter	Units	1	2	3
CHROMIUM	MG/KG	9.2	73.6	23.3

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

DUP/MS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 112196

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
CHROMIUM	112143-07	MG/KG	63.3	55.8	13	110	72.8	64
CHROMIUM	112196-05	MG/L	1.8	1.0	57	11.8	10.0	100

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Page

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 11219

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
CHROMIUM	20398	MG/KG	<0.5	45.8	50.0	92
CHROMIUM	20403	MG/L	<0.1	10.1	10.0	101

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

TABLE III

SAMPLE DATE: December 12, 1991
COLLECTED BY: Linda Collins/Kathleen Reinert - Caspian Inc.
ANALYZED BY: Analytical Technologies, Inc.
A.T.I. ID #: 201155
ANALYTICAL METHOD: E.P.A. Method 6010

SAMPLER IDENTIFIER	SAMPLE LOCATION	CHROMIUM TTLC
SB-2	Old Alodine Area	50.0

SB-2 was collected at a depth of 3 (three) feet

This sample was analyzed a third time to determine if the TTLC was 73.6 MG/KG as shown in Table I, or if it was 59.6 as shown in Table II.

LC:bo:0536

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 2011

January 20, 1992

CASPIAN INC.
4951 RUFFIN RD.
SAN DIEGO, CA 92123

Project Name: SB1-CHROME
Project # : NW SOIL BORINGS 91-26

Attention: KATHLEEN REINERT

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
January 10, 1992	1	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in th enclosed analytical schedule. The symbol for "less than" indicates a value below the reportabl detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

CARRIE SMITH
PROJECT MANAGER

KENNETH WAHL for
LABORATORY MANAGER

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

Report Date: January 20, 1992
ATI I.D. : 201155

ATI #	Client Description	Matrix	Date Collected
1	SB1-2 (NW BORING, 3FT)	SOIL	12-DEC-91

---TOTALS---

Matrix	# Samples
SOIL	1

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date o this report. If an extended storage period is required, please contact our sample contro department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 20115!

Analysis	Technique/Description
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA

AnalyticalTechnologies,Inc.

METALS RESULTS

ient : CASPIAN INC.
oject # : NW SOIL BORINGS 91-26
oject Name: SB1-CHROME

ATI I.D.: 201155

mple Client ID #	Matrix	Date Sampled	Date Received
SB1-2 (NW BORING, 3FT)	SOIL	12-DEC-91	10-JAN-92

rameter	Units	1
ROMIUM	MG/KG	50.0

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

DUP/MS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 20115

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
CHROMIUM	201108-02	MG/KG	5.5	6.4	15	54.1	48.9	99

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Page

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 20115

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
CHROMIUM	21284	MG/KG	<0.5	46.4	50.0	93

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

TABLE II

SAMPLE DATE: December 12, 1991
COLLECTED BY: Linda Collins/Kathleen Reinert - Caspian Inc.
ANALYZED BY: Analytical Technologies, Inc.
A.T.I. ID #: 112382
ANALYTICAL METHOD: E.P.A. Methods Noted Below

SAMPLE IDENTIFIER	SAMPLE LOCATION	SILVER	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	COBALT	CHROMIUM
SB-1	Old Alodine Area	<1.0 MG/KG	1.1 MG/KG	12.3/MG/KG	<0.5 MG/KG	<0.5 MG/KG	1.2 MG/KG	9.3 MG/KG
SB-2	Old Alodine Area	<1.0 MG/KG	1.5 MG/KG	142 MG/KG	<0.5 MG/KG	<0.5 MG/KG	2.3 MG/KG	59.6 MG/KG
EPA METHOD		6010	7060	6010	6010	6010	6010	6010

SAMPLE IDENTIFIER	SAMPLE LOCATION	COPPER	MERCURY	MOLYBDENUM	NICKEL	LEAD	ANTIMONY
SB-1	Old Alodine Area	8.2 MG/KG	<0.25 MG/KG	<1.0 MG/KG	1.2 MG/KG	1.5 MG/KG	<3.0 MG/KG
SB-2	Old Alodine Area	10.7 MG/KG	<0.25 MG/KG	<1.0 MG/KG	1.9 MG/KG	3.1 MG/KG	<3.0 MG/KG
EPA METHOD		6010	7471	6010	6010	6010	6010

SAMPLE IDENTIFIER	SAMPLE LOCATION	SELENIUM	THALLIUM	VANADIUM	ZINC
SB-1	Old Alodine Area	<1.0 MG/KG	<1.0 MG/KG	31.7 MG/KG	19.8 MG/KG
SB-2	Old Alodine Area	<1.0 MG/KG	<1.0 MG/KG	34.4 MG/KG	22.4 MG/KG
EPA METHOD		7740	7841	6010	6010

SB-1 was collected at a depth of 1 (one) foot
SB-2 was collected at a depth of 3 (three) feet

LC:bo:0535

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 11238

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	SB1-1 (NW BORING, 1FT)	SOIL	12-DEC-91	20-DEC-9
2	SB1-2 (NW BORING, 3FT)	SOIL	12-DEC-91	20-DEC-9

Parameter	Units	1	2	STLC (mg/l)	TTLC (mg/kg)
SILVER	MG/KG	<1.0	<1.0	5	100
ARSENIC	MG/KG	1.1	1.5	5	500
BARIUM	MG/KG	12.3	142	100	10000
BERYLLIUM	MG/KG	<0.5	<0.5	0.75	75
CADMIUM	MG/KG	<0.5	<0.5	1.0	100
COBALT	MG/KG	1.2	2.3	80	800
CHROMIUM	MG/KG	9.3	59.6	560	2500
COPPER	MG/KG	8.2	10.7	25	2500
MERCURY	MG/KG	<0.25	<0.25	0.2	20
MOLYBDENUM	MG/KG	<1.0	<1.0	350	3500
NICKEL	MG/KG	1.2	1.9	20	2000
LEAD	MG/KG	1.5	3.1	5.0	1000
ANTIMONY	MG/KG	<3.0	<3.0	15	500
SELENIUM	MG/KG	<1.0	<1.0	1.0	100
THALLIUM	MG/KG	<1.0	<1.0	7.0	700
VANADIUM	MG/KG	31.7	34.4	24	2400
ZINC	MG/KG	19.8	22.4	250	5000

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.: 11238

January 08, 1992

CASPIAN INC.
4951 RUFFIN RD.
SAN DIEGO, CA 92123

Project Name: SB1-CHROME
Project # : NW SOIL BORINGS 91-26

Attention: KATHLEEN REINERT

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
December 20, 1991	2	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

Carrie E. Smith
CARRIE SMITH
PROJECT MANAGER

Kenneth Wahl
KENNETH WAHL
LABORATORY MANAGER

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

Report Date: January 08, 1992
ATI I.D. : 112382

ATI #	Client Description	Matrix	Date Collected
1	SB1-1 (NW BORING, 1FT)	SOIL	12-DEC-91
2	SB1-2 (NW BORING, 3FT)	SOIL	12-DEC-91

---TOTALS---

Matrix	# Samples
SOIL	2

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 112382

Analysis	Technique/Description
EPA 6010 (ANTIMONY)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BARIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BERYLLIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CADMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COBALT)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COPPER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (LEAD)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MOLYBDENUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (NICKEL)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SILVER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (VANADIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ZINC)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 7060 (ARSENIC)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7471 (MERCURY)	ATOMIC ABSORPTION/COLD VAPOR
EPA 7740 (SELENIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE
EPA 7841 (THALLIUM)	ATOMIC ABSORPTION/GRAPHITE FURNACE

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D.: 11238

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	SB1-1 (NW BORING, 1FT)	SOIL	12-DEC-91	20-DEC-9
2	SB1-2 (NW BORING, 3FT)	SOIL	12-DEC-91	20-DEC-9

Parameter	Units	1	2
SILVER	MG/KG	<1.0	<1.0
ARSENIC	MG/KG	1.1	1.5
BARIUM	MG/KG	12.3	142
BERYLLIUM	MG/KG	<0.5	<0.5
CADMIUM	MG/KG	<0.5	<0.5
COBALT	MG/KG	1.2	2.3
CHROMIUM	MG/KG	9.3	59.6
COPPER	MG/KG	8.2	10.7
MERCURY	MG/KG	<0.25	<0.25
MOLYBDENUM	MG/KG	<1.0	<1.0
NICKEL	MG/KG	1.2	1.9
LEAD	MG/KG	1.5	3.1
ANTIMONY	MG/KG	<3.0	<3.0
SELENIUM	MG/KG	<1.0	<1.0
THALLIUM	MG/KG	<1.0	<1.0
VANADIUM	MG/KG	31.7	34.4
ZINC	MG/KG	19.8	22.4

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Page

Client : CASPIAN INC.
Project # : NW SOIL BORINGS 91-26
Project Name: SB1-CHROME

ATI I.D. : 11238

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ANTIMONY	20786	MG/KG	<3.0	47.6	50.0	95
ARSENIC	20908	MG/KG	<1.0	41.6	50.0	83
BARIUM	20786	MG/KG	<0.5	97.7	100	98
BERYLLIUM	20786	MG/KG	<0.5	51.3	50.0	103
CADMIUM	20786	MG/KG	<0.5	50.2	50.0	100
CHROMIUM	20786	MG/KG	<0.5	48.8	50.0	98
COBALT	20786	MG/KG	<1.0	98.9	100	99
COPPER	20786	MG/KG	1.9	48.6	50.0	93
LEAD	20786	MG/KG	<1.5	47.1	50.0	94
MERCURY	20905	MG/KG	<0.25	2.5	2.5	100
MOLYBDENUM	20786	MG/KG	<1.0	99.3	100	99
NICKEL	20786	MG/KG	<1.0	50.2	50.0	100
SELENIUM	20928	MG/KG	<1.0	26.3	50	53
SILVER	20786	MG/KG	<1.0	46.5	50.0	93
THALLIUM	20932	MG/KG	<1.0	47.0	50	94
VANADIUM	20786	MG/KG	<0.5	98.3	100	98
ZINC	20786	MG/KG	3.2	50.4	50.0	94

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

DEH, 1983

OFFICE USE ONLY: 1-Update 2-Add

RECEIVED
JUN 27 1983
CK 22714

H07938 05/31/83
CHEMICAL ENERGY OF CALIFORNIA
4951 RUFFIN ROAD
SAN DIEGO CA 92123

HAZARDOUS MATERIALS MANAGEMENT
PERMIT APPLICATION

If information at left is correct, skip to item #A3.

If corrections are necessary, complete #A1 and #A2.

SECTION A

A1. ESTABLISHMENT NAME (7–36)

A2. MAILING ADDRESS
STREET NUMBER (37–44) | STREET DIRECTION (N,S,E,W,NE,SW,ETC.) (45–46) | STREET NAME OR P.O. BOX NUMBER (47–66): RUFFIN RD

CITY (67–81) | STATE (82–83) | ZIP CODE (84–88) | BLDG/PLANT NO (93–96)

A3. ESTABLISHMENT PHONE (97–103): 2793110

A4. CONTACT PERSON (104–123): DONALD BRISCOE

A5. ESTABLISHMENT ADDRESS (IF DIFFERENT FROM MAILING ADDRESS)
STREET NUMBER (7–14) | STREET DIRECTION (N,S,E,W,NE,SW,ETC.) (15–16) | STREET NAME (17–36): RUFFIN RD

CITY (37–51) | STATE (52–53) | ZIP CODE (54–58) | BLDG/PLANT NO (63–66)

A6. OWNER NAME (67–86): CYRUS SAFFARI

A7. OWNER PHONE (87–96): 6192793110

A8. NAME OF PREVIOUS OWNER (97–116): STRAZA INDUSTRIES

A9. DATE YOU STARTED OR ASSUMED BUSINESS (117–122): MO 9 DAY YR 65

A10. REASON FOR APPLICATION (7): 1
1 = New
2 = Re-Open
3 = Change of Owner

A11. TOTAL NUMBER OF EMPLOYEES (8–11): 59

A12. DO YOU HAVE PERMITS FOR ANY OF THE FOLLOWING:

	YES	NO	FOR OFFICE USE ONLY
AIR POLLUTION CONTROL DISTRICT	☑	☐	12–16
SEWER DISTRICT (FOR INDUSTRIAL WASTES)	☑	☐	17–22
HAZARDOUS WASTE FACILITY	☑	☐	23–34
HAZARDOUS WASTE HAULER REGISTRATION	☐	☑	35–38
REGIONAL WATER QUALITY CONTROL BOARD	☑	☐	39

SEE REVERSE SIDE

OFFICE USE ONLY

SIC 1 (52–55)	SIC 2 (56–59)	CENSUS TRACT (68–74)	INC CODE (75–77)	BUSINESS CODE (78–83)	ANNUAL FEE (84–87)	EXPIRATION DATE MO DAY
		08511	20	K51	011600	0531

STATUS (80)	FIRE (89)	WATER (91)	SEWER (93)	(95)
3				

DHS:HMD-950 (12/82)

County of San Diego
Department of Health Services

You must complete Section B BEFORE answering question A13.

A13. Check one statement below.

A. ☑ This business or service does generate hazardous waste. I have completed and attached Section B. The appropriate annual permit fee (from Section B) is.....$ 116.00
I consent to all necessary inspections allowed by law and incidental to the issuance of this permit and the operation of this business.

B. ☐ After completing Section B, I have determined that this business or service does not generate hazardous wastes. I have completed and attached Section B.

You must complete Section C BEFORE answering question A14.

A14. Check one statement below.

A. ☑ This business or service does handle hazardous materials subject to the disclosure requirements. The required fee is $175.00. Please enter this amount here ----------> $ 175.00

B. ☐ After completing Section C, I have determined that this business of services does not handle hazardous materials subject to the disclosure requirements. I have completed and attached Section C.

A15. Add fees from #A13 and #A14 and enter total here.....$ 291.00

I declare under penalty of perjury that to the best of my knowledge and belief the statements made herein are correct and true.

Signature [illegible] Title Project Manager Date 6-21-83 Phone 279-3110

If your business or service either uses hazardous materials subject to disclosure or generates hazardous waste, a San Diego County Hazardous Materials Management Permit is required and the appropriate fee (See #A15) is to be submitted with this application. Please make check or money order payable to "County of San Diego".

NOTE: If you do not use hazardous materials or generate hazardous waste, you are still required to return this form (without a fee).

PLEASE USE THE ENCLOSED PRE-ADDRESSED RETURN ENVELOPE.

SECTION B - HAZARDOUS WASTES

NOTE: If you know that your business generates hazardous wastes, please check this box [✓] and skip to #B8. All others must complete and return #B1 through #B7 below.

B1. Does any process of your business or service produce any of the following by-products or wastes? (For examples, see the instructions on the previous page.)

CATEGORIES OF BY-PRODUCTS/WASTES	YES	NO	Approximate Amounts/Months
A. Solvents	___	___	_____
B. Sludges	___	___	_____
C. Waste Oil/Mixed Oil	___	___	_____
D. Pesticides	___	___	_____
E. Polychlorinated Biphenyls (PCBs)	___	___	_____
F. Monomer Waste/Polymeric Resin Waste	___	___	_____
G. Biological Wastes	___	___	_____
H. Organic Liquids/Solids	___	___	_____
I. Contaminated Aqueous Solution	___	___	_____
J. Acid Solutions	___	___	_____
K. Alkaline Solutions (caustics)	___	___	_____
L. Asbestos Wastes	___	___	_____
M. Metal Sludges and Dusts	___	___	_____
N. Other Hazardous Wastes	___	___	_____

B2. Do you dispose of any items in #B1 by discharging them into the sewer system including down sinks, storm drains, floor drains, toilets, etc.?
YES [ ] NO [ ] If yes, which category(ies) of by-products or wastes?_____

B3. Do you dispose of any items listed in # B1 in a way other than disposal into the sewer system (for example, trash cans, dumpster, on the ground, evaporation ponds, land fills, etc)? YES [ ] NO [ ] If yes, which category(ies) of by-products or wastes?_____

B4. Do you recycle any of the items listed in #B1 through another company/contractor or by yourself? YES [ ] NO [ ] If yes, which category(ies) of by-products or wastes?_____

SEE REVERSE SIDE

SECTION B - HAZARDOUS WASTES (continued)

B5. Do you manifest (prepare the required transportation document for hazardous wastes) any items listed in number B1? YES |__| NO |__|

B6. Do you store any of the items listed in #B1? YES |__| NO |__|

B7. If you answered "yes" to questions #B3 or #B4 or #B5 or #B6, your business or service does generate hazardous waste and a permit from the San Diego County Department of Health Services is required. Proceed to #B8.

If you have correctly answered "no" to all four questions (#B3, #B4, #B5 and #B6,) your business or service does not appear to generate hazardous waste. In Section A (beige) #A13, check box "B". Proceed to Section C. You may be contacted by the Department of Health Services to discuss the information submitted in this application.

B8. You have determined that your business or service does generate hazardous waste, therefore a San Diego County Hazardous Materials Management Permit is required. Using the chart below, circle the fee that must be submitted by your business. Please write this fee amount on the line in Section A (beige) #A13 "A". Proceed to Section C.

HAZARDOUS WASTE ESTABLISHMENT PERMIT FEE SCHEDULE

Number of Employees	Department of Health Services Fee
19 or less	$ 75.00
20-100	116.00
101-500	150.00
500+	178.00

PLEASE RETURN THIS SECTION

DEH, 1984

9-10-84

COUNTY OF SAN DIEGO

DEPARTMENT OF HEALTH SERVICES

1700 Pacific Highway, San Diego, CA 92101

JAMES A. FORDE, Director

BOARD OF SUPERVISORS
TOM HAMILTON FIRST DISTRICT
PAUL W. FORDEM SECOND DISTRICT
ROGER HEDGECOCK THIRD DISTRICT
JIM BATES FOURTH DISTRICT
PAUL ECKERT FIFTH DISTRICT

File 6/19/84

OFFICIAL NOTICE

DIV. OF ENVIRONMENTAL HEALTH PROTECTION
236-~~2243~~ 236-2222
Chemical Energy of California

Reinspect on or about ~~6/14/84~~

ESTABLISHMENT NO. H07938
DATE 5/31/84

NAME Bobby (First) Doble (Last) (Owner, Permittee, Agent, Tenant)
ADDRESS 4951 Ruffin Rd CITY San Diego 92123
You are hereby notified that an inspection of your Establishment located at 4951 Ruffin Rd (Address) San Diego (City) was made on 5/31/84 (Date) by Dan Avera (Sanitarian) of the County of San Diego Department of Health Services. The following described condition(s) is/are in violation of the following public health law(s) Health and Safety Code, California Administrative Code and shall be corrected within 14 days:

Within 14 days notified this office with a plan to correct the following conditions:

1. Rinse (dragout) from tanks draining to the dirt areas of plant. Hazardous waste.
2. Removal as a hazardous of sludge and contaminated soil onsite + offsite
3. Provide berms to prevent future contamination of soil.
4. Disconnect pipe from sump that is draining to surface of ground.
5. Provide MSDS from paint dye. supplier
6. Insure that all sumps and drainage collection areas are in good repair to prevent soil contamination under concrete.

Received By: [signature] Sanitarian [signature]
DHS:SAN:OF41 (1/82)

279-3110 6/11/84

6-28-84 area to north of plating area adequately cleaned of contaminated soil. Area to the east of collection sump from NaOH tanks still needs some topsoil removed as well as one pile of dried chemical waste. Mr. Doble indicated this would be removed the week of July 9th.

7-24-84 Soil removed & in drums (28), they want to hold & dispose of when clean out tanks. Berm installed but crooked, they are to have contractor come back to fix. To contact me within 15 days regarding repair.

8-10-84 Spoke with Bobby Doble & engineer Phil. Advised that contaminated soil to be removed under manifest in 30 days. They are to advise me when it is complete for a field inspection & review of the transport manifest. Also advised that if soil in area to the East of & behind berned area has contaminated soil it also is to be removed. Phil said berm has been repaired & no longer leaks.

9-7-84 Mr. Doble contacted me this date to advise me that the waste has been disposed of and is ready for inspection. He has manifest on site. He requested I call prior to inspecting next week.

9-12-84 Inspected on site, berm repaired, soil removed from site with contaminate (manifest attached.) Advised that when sump is cleaned material is to be contained properly & not dumped on the ground.

DEH, 1991

H07938

County of San Diego

J. WILLIAM COX, M.D., Ph.D
DIRECTOR
STEVEN A. ESCOBOZA
ASSISTANT DIRECTOR

DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH SERVICES

OFFICE OF THE DEPUTY DIRECTOR
P.O. BOX 85261
SAN DIEGO, CA 92186-5261
(619) 338-2211
Fax #: 338-2174

HAZARDOUS MATERIALS MANAGEMENT DIVISION
P. O. BOX 85261
SAN DIEGO, CA 92186-5261
(619) 338-2222

June 20, 1991

Linda Collins
Environmental Coordinator
Caspian Incorporated
4651 Ruffin Road
San Diego, CA 92123

Dear Ms. Collins:

RE: SITE ASSESSMENT INVESTIGATION H07938-001
CASPIAN INC., 4651 RUFFIN ROAD, SAN DIEGO, CA

The report dated March 15, 1991, prepared by Applied Geosciences, Inc., has been reviewed by staff of the Hazardous Materials Management Division (HMMD). The report contains soil sampling procedures and analytical results for the assessment of soil contamination in the excavation in which 30 30-gallon drums, once containing hydrofluoric acid (HF), were formerly buried.

Based on the results of soil sample analysis for pH, fluoride, and total metals presented in the above report, soil in the excavation appears to be adequately assessed and contains chemical levels acceptable to this office and the RWQCB. The stockpile soil, consisting of approximately 40 cubic yards, has been sampled according to SW-846 protocol. Soil analyses indicate no elevated pH, fluoride, or total metals in stockpile soils. Based on the information presented in the report, the HMMD and the RWQCB concur with the recommendation that stockpile soil may be returned to the excavation.

County ordinance 7797, section 65.107 (h) states the responsible party shall reimburse the HMMD for all costs incurred during the investigation and clean-up of contaminated sites. The current billing rate for these activities is $75.00 per hour. This office will bill for all costs at case closure. Additionally, section 65.105 states that fees and penalties will be assessed if payment is not received within 30 days of receipt of the invoice.

If you have any questions, please contact me at (619) 338-2497.

Sincerely,

Pamela Villa Clay

PAMELA VILLA CLAY, Hazardous Materials Specialist
Hazardous Materials Management Division

PVC:cmc

cc: James Munch-RWQCB

WP\CASPIA

DEH, 2005

107938 RR

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2088
1-800-253-9933

RICHARD HAAS
ASSISTANT DIRECTOR

October 13, 2005

OFFICIAL NOTICE

Cyrus A. Jaffari, President
Caspian, Inc.
P.O. Box 1149
Pine Valley, California 91962

Dear Mr. Jaffari:

CLOSURE OF CASPIAN AND MALEK FACILITIES LOCATED AT 4951 RUFFIN ROAD, SAN DIEGO

Thank you for your September 7, 2005, letter informing the Hazardous Materials Division (HMD) that your businesses, Caspian, Inc. and Malek L.L.C., have closed. During a site inspection on October 4, 2005, it appeared that the sites had been cleaned; however, numerous drums, totes, and tanks were observed throughout the property.

Tanks which held hazardous waste need to go through closure, as required by California Code of Regulations (CCR) §66265.197. Tanks which held hazardous materials and are now empty, but have hazardous residuals must also go through closure as required by CCR §67383.1 through 67383.3. The HMD form documenting the tank closures must be completed and signed by an eligible person. The HMD form and instructions is enclosed with this letter.

Any hazardous waste accumulation and treatment tanks, and associated equipment that were used as part of the Conditionally Exempt fixed treatment unit[1], need to be properly closed. Closure requirements for this unit are specified in HSC 25201.5(d)(8), and include:

a) submit certification to HMD when all treatment activities have ceased,
b) properly dispose of or decontaminate the fixed treatment unit of waste residues, including any contaminated soil and secondary containment area, and
c) provide written notification to HMD that all closure activities have been properly completed.

The following tanks and equipment have been identified as those which held hazardous waste and according to HMD records have not been properly closed.

a) 8,000-gallon rectangular holding tank
b) Three 8,000-gallon brewer tanks

c) Waste accumulation in-ground sump at the end of the swale. If there is contamination suspected or discovered around or under this sump, its secondary containment structure, or its connected underground piping, report this information to the HMD within 72 hours of discovery.
d) Vertical cone tank
e) Partially buried 55-gallon plastic drum at the end of the driveway. If there is contamination suspected or discovered under or around this drum, report this information to the HMD within 72 hours of discovery.

Please provide a copy of the waste profiles and manifests generated in the cleanout process, in addition to the Hazardous Waste Tank Closure Certifications signed by an appropriately qualified individual as noted on the enclosed form. Tanks that were shipped offsite as hazardous waste with a hazardous waste manifest do not need a closure form; in that case a copy of the disposal manifest will suffice.

Contaminated containers that meet the requirement for being California-empty (see CCR §66261.7) must be labeled with the date they were emptied and managed within one year as per Title 22 CCR §66261.7(f). Label the empty containers pursuant to State regulation within 5 days of receipt of this Notice. Dispose of the contaminated/empty containers remaining at the facility within 30 days and provide documentation of the disposal. The documentation must include the name, phone number, and street address of the disposal facility that receives the containers.

Closure of your business is subject to State requirements and involves several issues that may require additional environmental investigation or reporting to the regulatory agencies. Enclosed is a State Department of Toxic Substances Control summary chart describing the closure process and various requirements pursuant to State law and regulations. The form can also be found at this web link: http://www.dtsc.ca.gov/PublicationsForms/closure-reqmts-gen-tpf.pdf.

Enclosed are copies of the digital photos taken by the HMD on October 4, 2005, for your records. Until you submit the requested information and documentation, the HMD is unable to inactivate the HMD permit for your businesses at this location. Submit the documentation to my attention within 30 days of receipt of this Official Notice. Enclosed is the HMD form to certify corrective actions and return to compliance, which should be submitted with your documentation.

If you have questions, please contact me at (858) 495-5423 or lisa.leondis@sdcounty.ca.gov.

Sincerely,

Lisa Leondis

Lisa Leondis, EHS III
Hazardous Materials Division

Enclosures

cc: DEH file #107938
John Misleh, HMD

CERTIFIED MAIL

---

[1]CCR §66260.10: "Fixed Treatment Unit" means any equipment which performs a treatment as defined in this section and which is permanently stationed, or which is periodically assembled for use, at a single facility for the purpose of performing treatment, regardless of the period or frequency of treatment. "Unit" means a tank, a container, or a combination of tanks or tank systems and/or containers located together that are used in sequence to treat or accumulate one or more compatible hazardous waste streams. The devices are either plumbed together or otherwise linked so as to form one system. This definition only applies to Conditional Exemption, Conditional Authorization, and Permit By Rule operations.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cyrus A. Jaffari
PO Box 1149
Pine Valley, CA 91962

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☒ Addressee

B. Received by (Printed Name) C. Date of Delivery
CYRUS A. JAFFARI 10-17-05

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7003 3110 0003 0484 6710

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

7003 3110 0003 0484 6710

U.S. Postal Service
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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OFFICIAL USE

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Cyrus Jaffari
Closure Letter
Mailed 101305

Sent To
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

PS Form 3800, June 2002 See Reverse for Instructions

DEH, 2006

COUNTY OF SAN DIEGO

COMPLIANCE INSPECTION REPORT

PAGE 1 OF 1 DATE 4/14/06
PERMIT # 107938
TIME START 1:10 END 1:25
BUS. CODE K49
SPECIALIST Lisa Leondis
INSPECTION CONTACT/TITLE
no one available.
PHONE: ( ) N/a

BUSINESS NAME Caspian Inc.
ADDRESS 4951 Ruffin Road
CITY/ZIP San Diego 92123

On the above date, an inspection of your business/facility was conducted in order to determine compliance with the California Health and Safety Code (HSC) Chapters 6.5, 6.7, 6.95; Titles 19, 22 and 23 of the California Code of Regulations (CCR); and the San Diego County Code (SDCC). The following remarks are intended to provide guidance to correct the violations noted on the attached violation report.

NOTE: Reinspection fees will be charged if additional inspections are required to determine compliance.

Y	N/A		Y	N/A	
☐	☐	Unified Program Facility Permit current and available			Permit Expires on: / /
☐	☐	Hazardous Materials Business Plan available	☐	☐	Contingency Plan available
☐	☐	Employee Training is adequate	☐	☐	Employee Training records available
☐	☐	Waste disposal records available for review	☐	☐	Waste containers kept closed
☐	☐	Emergency contacts current ☐ Updated today	☐	☐	Waste containers kept labeled
☐	☐	Chemical inventory current ☐ Updated today	☐	☐	Waste containers in good condition

☐ All violations noted on this compliance inspection report were corrected during this inspection.

Final Closure Inspection

This site was inspected to determine whether a stockpile of used drums had been disposed since the last inspection on Oct. 4, 2005. According to return to compliance documentation from the owner of Caspian, Cyrus Jaffari, dated Dec. 12, 2005, the drums were recycled or returned to the manufacturer.

During this site visit, the stockpile previously observed was gone, but other drums were observed here and there, which appeared to be in use by the movie studio which has leased the property.
It is recommended that this permit be inactivated.

☐ This is an annual certification that the Hazardous Materials Business Plan (inventory, emergency contacts, emergency response plan, and employee training plan) is current and includes all the information required in the H&SC and is maintained at the site where hazardous materials are stored.

Initials of Business Representative

no one available for signature, 4-14-06 L Leondis

Signature of Business Representative | Date Signed | Title of Business Representative

Department of Environmental Health, Hazardous Materials Division, P.O. Box 129261, San Diego, CA 92112-9261
Phone: (619) 338-2222 Fax: (619) 338-2137 1-800-253-9933 http://www.sdcounty.ca.gov/deh/hmd/index.html

DTSC, 2003

Department of Toxic Substances Control

Edwin F. Lowry, Director
2878 Camino Del Rio South, Suite 402
San Diego, California 92108

Vinston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

August 29, 2003

Mr. Richard Remias
Caspian Incorporated
4951 Ruffin Road
San Diego, Ca 92123

Dear Mr. Remias:

On June 2, 2003, and July 24, 2003, the California Environmental Protection Agency, Department of Toxic Substances Control (Department), conducted an inspection of Caspian Incorporated in San Diego, California. The enclosed report describes the findings of this inspection.

Because no violations were discovered during the inspection, no written response to this letter is required. The Department appreciates your efforts made to comply with hazardous waste laws and regulations.

All pertinent information derived from the inspection, including documents, photographs, and sampling results, are included as attachments to the report, except copies of documents provided by your facility at the time of the inspection. In order to reduce copying and mailing costs, these have not been returned to you with the report; copies will be provided if you request them.

This report will become a public document; you may request that any trade secret or facility security information be withheld from public disclosure. (See Health and Safety Code Section 25173 enclosed.) If you wish to assert the trade secret privilege after you have reviewed the report, please provide specific answers to each of the following questions, for each item of concern, within 10 days of receipt of this letter:

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.

Printed on Recycled Paper

1. To what extent is there knowledge of the information conveyed by the photograph/document outside of business?

2. To what extent is there knowledge of the information conveyed by the photograph/document, by employees and others in your business?

3. To what extent have measures been taken to guard the secrecy of the information?

4. Is the information valuable to competitors? If so why?

INSPECTION REPORT

I. GENERAL INFORMATION

Company Name:	Caspian Inc.
Facility Address:	4951 Ruffin Road San Diego, California 92123
Telephone Number:	(858) 279-3110
EPA ID Number:	CAD053851366
Facility Type:	Chemical milling for the aerospace industry
Regulated Unit:	None
Waste Streams:	Aluminum etch, stainless steel etch, and Titanium etch
Regulatory Status:	Generator
Inspected by:	J. Alfredo Rios Hazardous Substances Scientist Department of Toxic Substances Control
Date of Inspection:	June 2, 2003, and July 24, 2003
Facility Representatives:	Richard Remias, General Manager

II. Consent

Consent to conduct inspection that involves: taking photographs, reviewing and copying records questioning personnel and inspecting hazardous waste handling areas.

Consent given by: Richard Remias, General Manager

III. NARRATIVE OF OBSERVATIONS/DISCUSSION WITH OPERATOR

First Day:

On June 2, 2003, Ms. Lisa Leondis, County of San Diego/Hazardous Materials Division, and I arrived at the facility and met Mr. Rick Remias, General Manager. I explained that the purpose for the visit was to conduct a Recycler Initiative

inspection of the recycling operations and to have a comprehensive understanding of the facility's processes. The inspection would verify whether the facility meets all the conditions and requirements necessary to sustain the exemption claim under 40 Code of Federal Regulations (40 CFR) federal recycling exemption.

I asked Mr. Remias to explain the operations. Caspian Inc. performs a chemical milling service whereby excess weight is removed from aerospace and missile parts. Caspian has been in business since1965. With the downturn in the aerospace industry, particularly during the 1980's, Caspian has downsized and currently has 16 employees. Caspian is one of four chemical milling companies in California. At this time, Mr. Cyrus Jaffari, President of Caspian, walked in to join the meeting.

Caspian generates the following waste-streams directly from their chemical milling operations: stainless steel etch, Titanium etch and Aluminum etch (spent sodium hydroxide). The used or spent stainless steel and Titanium etch are managed as a hazardous waste. The facility recycles the spent Aluminum etch by shipping it to Reynolds Metals Co. in Corpus Christi, Texas. However, the spent aluminum etch is managed as a material and not as hazardous waste. A letter dated February 8, 1994, from DTSC stated that the spent sodium hydroxide sent to Reynolds Metals qualified as an excluded recyclable material, under Health and Safety Code (H&SC), section 25143.2 (b)(2). I asked Mr. Remias why the spent sodium hydroxide was not managed as an excluded recyclable material, a hazardous waste. Mr. Remias indicated that the spent sodium hydroxide was sent to Reynolds Metals as a material because it was of value to their customer. It was decided that we would hold another meeting to further discuss the management of the spent sodium hydroxide. In this future meeting, Ms. Linda Collins, former Caspian employee and now a consultant for Caspian would be present.

Walkthrough

A brief walkthrough of the facility was conducted of the following areas: warehouse where the excess maskant and solids are stored, maskant totes storage area outside the warehouse, and the process tanks area.

Second visit

On July 24, 2003, Ms. Leondis and I returned to Caspian to further discuss the management of the spent sodium hydroxide and to conduct a record review. Ms. Linda Collins, a former Caspian employee and now a consultant for Caspian, participated in the meeting. I indicated to Ms. Collins that the reason for this follow up meeting was to further discuss the management of the spent sodium hydroxide

solution. During the first meeting on June 2, 2003, Mr. Remias had indicated that the spent sodium hydroxide was shipped out as a material. According to Ms. Collins, the spent sodium hydroxide is managed a hazardous waste and shipped on a hazardous waste manifest to Reynolds Metals. I indicated to Ms. Collins that since the spent sodium hydroxide is sent to recycling facility it qualified as an excluded recyclable material. Using this exclusion under H&SC section 25143.2, Caspian can ship the spent sodium hydroxide on a bill of lading and does not have the 90 day storage limit. Mr. Remias and Ms. Collins indicated that they would start managing the spent sodium hydroxide as an excluded recyclable material.

The following documents were reviewed: the 2002, Biennial Report for Excluded Recyclable Materials, which was submitted to San Diego County, Hazardous Materials Division, and hazardous waste manifests.

IV. Violations

No violations were observed.

V. Conclusion

The purpose of the inspection was to determine whether Caspian was in compliance with federal recycling exclusions as reported in our records. It was found that Caspian was not operating under any federal or State recycling exclusions for the spent sodium hydroxide being sent to Reynolds Metals for recycling. DTSC determined that both federal and State exclusions were applicable to the spent sodium hydroxide. Caspian agreed that the exclusions were applicable to the spent sodium hydroxide.

J. Alfredo Rios
Hazardous Substances Scientist
Statewide Compliance Division

8/29/03
Date

EPA, 2010b

http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=0908405
Last updated on Monday, May 24, 2010

Superfund

You are here: EPA Home Superfund Sites Superfund Information Systems Search Superfund Site Information

Search Superfund Site Information

CASPIAN, INC.

Site Information

Site Info | Aliases | Operable Units | Contacts
Actions | Contaminants | Site-Specific Documents

Site Name: CASPIAN, INC.
Street: 4951 RUFFIN ROAD
City / State / ZIP: SAN DIEGO, CA 921231615

NPL Status: Not on the NPL
Non-NPL Status: PA Start Needed

EPA ID: CAD053851366
EPA Region: 09
County: SAN DIEGO

Federal Facility Flag: Not a Federal Facility

Return to Search Results

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EPA, 2010c

http://iaspub.epa.gov/enviro/fii_master.fii_retrieve?fac_search=primary_name&fac_value=&fac_search_type=Beginning+With&postal_code=&location_address=4951+ruffin&add_search_type=Containing&city_name=san+diego&county_name=&state_code=ca&epa_region_code=&naic_code_desc=&naics_code=&all_programs=YES&univ_search=0&univA=FULL_ENFORCEMENT&univB=LQG&LIBS=&proc_group=0&procname=&program_search=2&report=1&page_no=1&output_sql_switch=TRUE&database_type=RCRAINFO

Last updated on Tuesday, July 13, 2010

Resource Conservation and Recovery Act (RCRAInfo)

You are here: EPA Home > Envirofacts > RCRAInfo > Query Results

Query Results

Report an Error

RCRAInfo

Data Disclaimer

Only RCRAInfo facility information was searched to select facilities

Location Address: 4951 ruffin
City Name: san diego
State Abbreviation: ca

Results are based on data extracted on JUN-17-2010

Note: Click on the underlined CORPORATE LINK value for links to that company's environmental web pages.
Click on the underlined MAPPING INFO value to obtain mapping information for the facility.

Go To Bottom Of The Page

HANDLER NAME:	CASPIAN INC.	HANDLER ID:	CAD053851366
STREET:	4951 RUFFIN RD.	FACILITY INFORMATION:	View Facility Information
CITY:	SAN DIEGO	CORPORATE LINK:	No
STATE:	CA	COUNTY:	SAN DIEGO
ZIP CODE:	92123	MAPPING INFO:	MAP
EPA REGION:	9		

CONTACT INFORMATION

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
CYRUS A JAFFARI					8582793110	Public
KATHLEEN H REINERT					6192793110, 40	Permit
KATHLEEN REINERT					6192793110, 40	Permit
KATHLEEN REINERT					6192793110	Permit
CYRUS JAFFARI					8582793110	Permit
EDGAR B GRABAU					6192793110, 0040	Permit
CYRUS JAFFARI					8582793110	Permit
KATHLEEN REINERT	4951 RUFFIN RD	SAN DIEGO	CA	921231698	6192793110	Permit
MARK JAFFARI					8582793110, 22	Permit
KATHLEEN H REINERT					6192793110, 40	Permit

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
336413	OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING
333319	OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING
33991	JEWELRY AND SILVERWARE MANUFACTURING
332999	ALL OTHER MISCELLANEOUS FABRICATED METAL PRODUCT MANUFACTURING

HANDLER NAME:	MALEK LLC	HANDLER ID:	CAR000017095
STREET:	4951 RUFFIN RD BLDG NO 11	FACILITY INFORMATION:	View Facility Information
CITY:	SAN DIEGO	CORPORATE LINK:	No
STATE:	CA	COUNTY:	SAN DIEGO
ZIP CODE:	921231698	MAPPING INFO:	MAP
EPA REGION:	9		

CONTACT INFORMATION

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
KATHLEEN REINERT	4951 RUFFIN RD BLDG NO 11	SAN DIEGO	CA	921231698	6192793110	Public
KATHLEEN REINERT	4951 RUFFIN RD BLDG NO 11	SAN DIEGO	CA	921231698	6192793110	Permit

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
541611	ADMINISTRATIVE MANAGEMENT AND GENERAL MANAGEMENT CONSULTING SERVICES

Go To Top Of The Page

Total Number of Facilities Displayed: 2

Garrett, 1986

C1218

LATHAM & WATKINS

ATTORNEYS AT LAW

701 "B" STREET, SUITE 2100

SAN DIEGO, CALIFORNIA 92101-8197

TELEPHONE (619) 236-1234

TELECOPIER (619) 696-8281

TLX 590778

ELN 62793276

CHICAGO OFFICE

SEARS TOWER, SUITE 6900

CHICAGO, ILLINOIS 60606

TELEPHONE (312) 876-7700

TELECOPIER (312) 993-9767

TLX 590778

ELN 62793271

LOS ANGELES OFFICE

555 SOUTH FLOWER STREET

LOS ANGELES, CALIFORNIA 90071-2466

TELEPHONE (213) 485-1234

TELECOPIER (213) 680-2098

TLX 590773

ELN 62793268

CABLE ADDRESS LATHWAT

NEWPORT BEACH OFFICE

660 NEWPORT CENTER DRIVE, SUITE 1400

NEWPORT BEACH, CALIFORNIA 92660

TELEPHONE (714) 752-9100

TELECOPIER (714) 759-8891

TLX 590777

ELN 62793272

PAUL R. WATKINS (1899-1973)

DANA LATHAM (1898-1974)

NEW YORK OFFICE

437 MADISON AVENUE, SUITE 1400

NEW YORK, NEW YORK 10022

TELEPHONE (212) 319-2570

TELECOPIER (212) 751-4864

TLX 510101268O

ELN 62891922

WASHINGTON, D.C. OFFICE

1333 NEW HAMPSHIRE AVE., N.W., SUITE 1200

WASHINGTON, D.C. 20036-1594

TELEPHONE (202) 828-4400

TELECOPIER (202) 828-4415

TLX 590775

ELN 62793269

May 1, 1986

Mr. Gary Stephany, Chief
Division of Environmental
Health Protection
Hazardous Materials Management Unit
County of San Diego
Department of Health Services
1700 Pacific Highway
San Diego, California 92101

Re: Chemical Energy Co.'s Application for
Permit to Operate Underground Storage Tanks

Dear Mr. Stephany:

Enclosed please find an application for a Permit to Operate certain process containers used by Chemical Energy of California in its operations at 4951 Ruffin Road.

Chemical Energy uses these process containers as an integral part of its chemical milling operations to treat various aircraft parts and other materials. These containers are not enclosed "tanks;" rather, they are structures which are open at the top and used to insert various parts which are being treated in order to apply masking material, hydrofluoric acid, or caustic soda. No hazardous substances are "stored" in these tanks. Rather, the substances in these containers are an integral part of the process operation, and are continually monitored and managed as parts are treated in the chemical milling operation.

As a result of these facts, we do not believe that these containers are "underground storage tanks," within the

C1218

meaning of Health and Safety Code § 25280(m). Additionally, we do not believe that the substances which are placed in these tanks are "stored" within the meaning of Health and Safety Code § 25280(k). As a result, we do not believe that a "Permit to Operate" is needed for these containers under Health and Safety Code § 25283. Additionally, the other requirements of Health and Safety Code Division 20, Chapter 6.7, involving underground storage of hazardous substances, would not appear to apply to these containers.

However, Chemical Energy has a long-standing policy of ensuring that its operations at all times comply with the most stringent applicable environmental statutes and regulations. Rather than simply concluding that California's underground storage tank statutes and regulations do not apply to its process containers and taking no further action, we would like to inform your agency of the existence of these process containers and provide you with specific information about our facilities. Additionally, while we believe that the structures are not "underground storage tanks," we would like to ensure that Chemical Energy is in compliance with any conceivable interpretation of California law.

As a result, we have completed and returned the enclosed applications for a Permit to Operate these containers under Health and Safety Code Division 20, Chapter 6.7. This submittal of application is made without waiving our conclusion that the law is not applicable. We hope that by submitting these applications, Chemical Energy can ensure that it is regarded as complying with all California laws. We hope that after reviewing the applications and the affirmation we have provided, you will conclude that a Permit to Operate is not needed for the structures because they are not underground storage tanks. If, for some reason, you have some question about whether these structures are covered as underground storage tanks, Chemical Energy's submittal application of these applications will allow us to obtain a judicial resolution of this matter by ordinary civil action, rather than by an action for civil or criminal penalties for alleged noncompliance under Health and Safety Code § 25287.

We hope you will appreciate Chemical Energy's position on this matter as the best way to address this issue. After your current heavy workload of permit

processing subsides, we look forward to working with you, supplying more information about Chemical Energy's operations, and obtaining confirmation that these structures do not require Permits to Operate.

There are other points which should be covered as well about the enclosed applications. First, Item 19 on the application asks about the owner-operator contract required by Title 23 Cal. Admin. Code § 2610(b). Chemical Energy is the operator of these process containers, but it is not the owner. No contract has been entered into as of this date. Chemical Energy, consistent with its position in submitting this application without a waiver that the process containers are not tanks, will propose to the owner of the process containers that he enter into a conditional written contract satisfying the requirement of Section 2610(b), with the premise that a contract is executed without a waiver of the owner and operator's position that the process containers are not subject to California's underground storage tank regulations and statutes. As soon as such a conditional contract is executed, we will forward a copy to you. As we understand Section 2610(b), the responsibility for the creation of such a contract lies with the owner, and not the operator.

A second point to be dealt with in dealing with this application concerns trade secret information contained in these applications. The list of substances contained in each of the process containers, (Item 4 on each of the individual container applications) constitutes a trade secret of Chemical Energy. Chemical Energy uses a proprietary combination of chemicals for its successful chemical milling operations. If competitors were to learn of the precise formulation of the materials contained in these process tanks, they would obtain a significant advantage, and valuable proprietary information which Chemical Energy has invested a great deal of research and development time and funding to produce this proprietary information. Chemical Energy has prohibited its employees from disclosing this information to the public or competitors. This information should be treated as confidential for a period of 40 years, or when Chemical Energy ceases its chemical milling operations, whichever occurs first. The legal basis for declaring this information a trade secret is based (among other statutes and cases), on the following statutes and legal cases:

C1218

Government Code § 6254(k), Evidence Code § 1060, and Ruckelshaus v. Monsanto Co., 104 S. Ct. Rptr 2862 (1984). Please consider this letter to be a request for trade secret protection pursuant to Title 23 Cal. Admin. Code § 2713.

Third, it should be noted that Chemical Energy has responded to Question 4 (requesting information on chemicals "stored" in underground storage tanks) for each process container even though it does not "store" these chemicals in its process containers. Instead, these chemicals are actively used in the container during the chemical milling process.

Fourth, the application pertaining to a "sump" (State I.D. 24902-002) was not completed, because "sumps" are clearly excluded by § 25280(m)(4).

Should you have any questions on this matter, do not hesitate to call me at any time.

Sincerely,

Christopher W. Garrett
of LATHAM & WATKINS

Enclosure

cc: Linda Collins

CWG003

INDUSTRIAL WASTES

TABLE OF INFORMATION

	PROCESS		ASSOCIATED WASTE	ESTIMATED CONCENTRATION (% or ~~ppm~~)	PHYSICAL STATE	ESTIMATED ANNUAL VOLUME: POUNDS, BARRELS, TONS OR GALLONS (INDICATE WHICH) PRESENT	5 YEARS	10 YEARS	please use key sheet DISPOSAL POINT (1-3)	PROCESS EMPLOYED TREATMENT PROCESS	DISPOSAL MODE	SHIPPING CONTAINER	
A.	ETCHING ALUMINUM	1.	SPENT CAUSTIC	0 - 4	LIQUID	50000	60000	70000	3	1	30	1	57 2
	ETCHING STEEL		SPENT ACID	0 - 4	LIQUID	5000	6000	8000	3	1	30	1	56 1

6. Please complete the industrial wastes table of information (centerfold) for your operations. (Insert sheet illustrates typical samples.)

7. Please indicate the names of haulers and off-site disposal facilities utilized for:

Liquids CHANCELLOR + OGDEN (Hauler) BKK Land Fill (Disposal Site)

Solids _____ (Hauler) _____ (Disposal Site)

C. DEPARTMENT OF HEALTH

Are your waste managers acquainted with California Department of Health's rules and guidelines for handling hazardous wastes? Yes ☒ In Part ☐ No ☐

D. RESOURCES RECOVERED

What materials are recovered from your operation's wastes? By whom? (ck. below)

(Material recovered)	(Annual amount)	(Company)	(Others)
N/A		☐	☐
		☐	☐
		☐	☐

E. BRANCH INFORMATION

1. How many people are employed in your operations?

1-20 ☐ 21-50 ☐ 51-100 ☐ 101-500 ☒ 501 or more ☐

2. How much area do your operations occupy?

Land area 10 acres Floor area 49,000 sq.ft.

3. What is the present age of your facilities?

Under 5 years ☐ 5-30 years ☒ over 30 years ☐

4. COMMENT

F. AIR POLLUTION CONTROL

1. Are your waste materials disposed of on site by evaporation or incineration? Yes ☐ No ☒ Evap. ☐ Incin. ☐

KB

SAN DIEGO COUNTY

INDUSTRIAL WASTE SURVEY

RECEIVED

JUL 18 1978

SANITATION & FLOOD CONTROL

H07938 Tel Type 1, 2

FOR AGENCY USE

I.D. _____

By Mail ☐ In Person ☐

Interviewer _____

Date _____

Primary SIC: 3599

Secondary SIC: _____

A. GENERAL INFORMATION

1. Company CHEMICAL ENERGY

2. Branch ——

3. 4951 RUFFIN RD (Street & No.) SAN DIEGO (City) 92123 (Zip) 2293110 (Phone)

4. Person Interviewed EDGAR GRABAU (Name) CH. CHEMIST (Title) 2293110 (Phone)

5. What is your principal product or service? CHEMICAL MILLING

B. INDUSTRIAL WASTES

1. Do your operations produce any kind of waste? . . . . . Yes ☒ No ☐
If so, does your waste or waste mixture have any of the following properties?

Carcinogenic . . . . . ☐ Flammable . . . . . ☐

Corrosive . . . . . ☒ Irritant/strong sensitizer . . . ☒

Explosive . . . . . ☐ Toxic . . . . . ☐

Nontoxic . . . . . ☐

2. Does your operation's waste generation change seasonally? . . Yes ☐ No ☒
If yes, when does peak occur? _____ (Please specify time period)

3. How are your operation's wastes stored prior to disposal/transportation?

Barrels (not steel) . . . . ☐ Special packaging . . . . . ☐

Concrete encased . . . . . ☐ Steel drums . . . . . ☐

Open yard . . . . . ☐ Tanks . . . . . ☐

Plastic encased . . . . . ☐ Warehouse . . . . . ☐

Ponds . . . . . ☐ Other _____ (Please specify)

Pressure containers . . . . ☐ None stored . . . . . ☒

4. Are wastes combined in storage? . . . . . Yes ☐ No ☒

5. Will your compliance with current federal water and air pollution control standards produce additional wastes? Yes ☐ No ☒

KB

Haynie, 1990a

LATHAM & WATKINS

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DANA LATHAM (1898-1974)

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FAX (202) 637-2201

'90

September 26, 1990

Mr. John Misleh
County of San Diego
Department of Health
Hazardous Material Management Division
1255 Imperial Avenue, 3rd Flr.
San Diego, CA 92101

Re: Caspian Inc. - 4951 Ruffin Road Facility

Dear Mr. Misleh:

On April 12, 1990, during an inspection at Caspian Inc's ("Caspian") facility, located at 4951 Ruffin Road, San Diego, you requested that Caspian perform certain corrective actions, all of which have been addressed as stated in the correspondence sent to you on May 10, 1990 and June 22, 1990. The only item requiring additional action on Caspian's part is Item 4 which states:

> Sections CCR 67120(a) and 66471:
>
> Wet sludge (greenish tinge) was observed to be ponding along the curb north of the alodine process tanks and had flowed directly into the sewer drain. Sludges containing heavy metals from the process tanks should not be discharged into the sewer unless authorized to do so. Corrective Actions: conduct a hazardous waste determination for this waste sludge and provide the results in writing to the HMMD. NOTE: A split sample of this sludge was given to Linda Collins, Environmental Manager, Caspian, Inc.

As we have previously stated in the correspondence of May 10, 1990, the origin of the sludge is uncertain. The processes in the area of the drain do not generate sludge and sludges are not discharged into the sewer. In any event, we are

enclosing a copy of the analytical results of the sludge that we received from A.T.I. Laboratory. Caspian questions the accuracy of some of the results; however, during the testing process A.T.I. Laboratory utilized the entire sample that Caspian split with the County Department of Health Services ("CDOHS"). Therefore, we have no other means to verify the accuracy of the analytical results.

As you know, CDOHS retained a split of the sample of the sludge. We would appreciate receiving a copy of any anlaytical results CDOHS has received of the sludge to verify the accuracy of the results we obtained from A.P.I. Laboratory. In addition, we would appreciate receiving the results of any other split samples taken by CDOHS at the facility in order to further our compliance efforts.

We appreciate your cooperation in this regard and will look forward to discussing these issues with you further. If you have any further questions, please do not heistate to contact me.

Very truly yours,

Allen D. Haynie
of LATHAM & WATKINS

cc: Linda Collins

CLIENT : CASPIAN, INC.
PROJECT # : (NONE)
PROJECT NAME : (NONE)

DATE RECEIVED : 05/10/90
REPORT DATE : 05/31/90

ATI I.D. : 005137

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	#009	WATER	05/10/90
02	#010	SOIL	05/10/90

----- TOTALS -----

MATRIX	# SAMPLES
WATER	1
SOIL	1

ATI STANDARD DISPOSAL PRACTICE

ie samples from this project will be disposed of in twenty-one (21) days from ie date of this report. If an extended storage period is required, please ntact our sample control department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ATI I.D. 005137

ANALYTICAL SCHEDULE

CLIENT: CASPIAN, INC.
PROJECT NAME: (NONE)

PROJECT NO.: (NONE)

ANALYSIS	TECHNIQUE	REFERENCE/METHOD
ANTIMONY	ICAP	EPA 6010
ARSENIC	AA/GF	EPA 7060
BARIUM	ICAP	EPA 6010
BERYLLIUM	ICAP	EPA 6010
CADMIUM	ICAP	EPA 6010
CHROMIUM	ICAP	EPA 6010
COBALT	ICAP	EPA 6010
COPPER	ICAP	EPA 6010
LEAD	ICAP	EPA 6010
MERCURY	AA/COLD VAPOR	EPA 7471
MOLYBDENUM	ICAP	EPA 6010
NICKEL	ICAP	EPA 6010
SELENIUM	AA/GF	EPA 7740
SILVER	ICAP	EPA 6010
THALLIUM	AA/GF	EPA 7841
VANADIUM	ICAP	EPA 6010
ZINC	ICAP	EPA 6010

METALS RESULTS

ATI I.D. : 005137

CLIENT : CASPIAN, INC.
PROJECT # : (NONE)
PROJECT NAME : (NONE)

DATE RECEIVED : 05/10/90
REPORT DATE : 05/31/90

PARAMETER	UNITS	02
SILVER	MG/KG	<1.0
ARSENIC	MG/KG	(INC)
BARIUM	MG/KG	101
BERYLLIUM	MG/KG	0.9
CADMIUM	MG/KG	8.1
COBALT	MG/KG	6.4
CHROMIUM	MG/KG	6980
COPPER	MG/KG	253
MERCURY	MG/KG	<0.25
MOLYBDENUM	MG/KG	5.8
NICKEL	MG/KG	17.8
LEAD	MG/KG	295
ANTIMONY	MG/KG	16.5
SELENIUM	MG/KG	(INC)
THALLIUM	MG/KG	(INC)
VANADIUM	MG/KG	250
ZINC	MG/KG	2370

METALS - QUALITY CONTROL

CLIENT : CASPIAN, INC.
PROJECT # : (NONE)
PROJECT NAME : (NONE)

ATI I.D. : 005137

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/KG	00509406	<1.0	<1.0	0	43.1	49.7	87
BARIUM	MG/KG	00500242	67.9	70.2	3	161	96.8	95
BERYLLIUM	MG/KG	00509406	0.6	0.5	18	43.9	49.7	87
CADMIUM	MG/KG	00509406	<0.5	<0.5	0	42.3	49.7	85
COBALT	MG/KG	00509406	14.6	13.8	6	99.4	99.4	86
CHROMIUM	MG/L	00509302	<0.01	<0.01	0	1.9	2.0	95
CHROMIUM	MG/KG	00509406	45.8	38.5	17	84.6	49.7	85
COPPER	MG/KG	00509406	35.8	33.7	6	77.8	49.7	87
MERCURY	MG/KG	00506701	<0.25	<0.25	0	2.53	2.17	116
MOLYBDENUM	MG/KG	00509406	<1.0	<1.0	0	82.6	99.4	83
NICKEL	MG/KG	00509406	64.3	60.6	6	104	49.7	84
LEAD	MG/KG	00509406	11.3	10.4	8	55.1	49.7	89
ANTIMONY	MG/KG	00509406	2.4	1.1	74	19.3	49.7	35
VANADIUM	MG/KG	00509406	40.9	35.7	14	124	99.4	86
ZINC	MG/KG	00509406	81.9	76.3	7	122	49.7	86

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Haynie, 1990b

LATHAM & WATKINS

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October 2, 1990

VIA MESSENGER

Mr. John Misleh
County of San Diego
Department of Health
Hazardous Material Management Division
1255 Imperial Avenue, 3rd Floor
San Diego, CA 92101

Re: Caspian Inc. - 4951 Ruffin Road Facility

Dear Mr. Misleh:

As you know, Latham & Watkins and Coughlan, Semmer and Lipman represent Caspian Inc. ("Caspian") in connection with what we understand to be an ongoing criminal investigation regarding environmental matters being supervised by Deputy District Attorney Anthony Lovett. Despite Caspian's inability to obtain the return of numerous documents seized by governmental agents several months ago, which restricts Caspian's ability to review historical activities and processes at its San Diego facility, Caspian is continuing to carry out its long-standing policy of full cooperation with all regulatory agencies. As part of this effort at cooperation, Caspian has been engaged in a review of its facility, equipment and processes, and this letter identifies two recent findings made by Caspian and updates Caspian's responses to your questions posed on July 19, 1990 to Caspian.

As we have previously requested, we ask that the County of San Diego Department of Health Services ("CDOHS") and other regulatory agencies direct any requests for documents or information from Caspian or its employees to either me or Jerry Coughlan at Coughlan, Semmer and Lipman, Caspian's attorneys. We appreciate your anticipated cooperation with the foregoing request, which will facilitate fulfilling through counsel Caspian's policy of responding to regulatory inquiries.

LATHAM & WATKINS

In an effort to achieve a resolution and settlement of the allegations asserted in the CDOHS Notice of Violation dated April 25, 1990 ("CDOHS Notice"), Caspian has previously provided a substantial amount of information to CDOHS and to the staff of the Regional Water Quality Control Board for the San Diego Region ("Regional Board"). As with the prior information, we are submitting this letter on behalf of Caspian pursuant to California Evidence Code § 1152, in conjunction with and as part of Caspian's offer to compromise disputed claims asserted in CDOHS Notice with respect to alleged violations of underground storage tank laws and regulations, which Caspian believes are inapplicable, and certain materials handling regulations.

This letter is not intended, and should not be construed, as a waiver of the attorney-client privilege or the attorney work product privilege. Caspian, its directors, officers or employees or any counsel representing Caspian or its dir[illegible]rs, officers or employees reserve the right to assert such r[illegible]ss regarding this or any other information pertaining to [illegible]tters.

Recently, Caspian learned that a number of containers were buried at the southeast corner of the facility. It appears that, approximately fifteen years ago, Caspian purchased a number of thirty-gallon, poly-lined containers of hydrofluoric acid from a company in Japan. Unlike other containers utilized by Caspian during this period of time, these particular containers could not be returned to the company supplying the hydrofluoric acid. In light of then existing practices, it is Caspian's understanding that the containers were rinsed after they were emptied through use in manufacturing operations. Subsequently, the containers were buried under approximately two feet of dirt.

Immediately upon learning of this situation, Caspian began investigating to determine the location of the containers. Within the last week, approximately thirty containers were discovered. None of the soils where the containers were buried appeared discolored. Caspian is retaining an environmental consulting firm to take soil samples of the area where the containers were buried to confirm that no contamination of soils has resulted from the burial of the containers. Caspian will provide copies of the sample results to CDOHS upon their receipt.

Under the circumstances, it appears that Caspian has no notice requirements since this situation does not involve a release of a hazardous substance in a reportable quantity. Please notify us immediately if CDOHS believes Caspian has any

LATHAM & WATKINS

notice obligations in this situation, since Caspian is desirous of fully complying with any such notice requirements.

As you know, Caspian also submitted an application to close its four open-top, below-grade processing structures pursuant to the underground storage tank laws and regulations on August 8, 1990, reserving its long-standing belief that such laws and regulations do not apply to Caspian's structures. Since then, Caspian has been preparing for the commencement of the investigation proposed by Applied Geosciences Inc. ("Applied Geosciences") in its closure plan.

Recently, Caspian personnel were removing a thick layer of talc which had accumulated on the bottom of the maskant dip structure during the course of normal operation. This solid talc had obscured the steel containment at the bottom of the structure. Upon removal of the talc, Caspian determined that two gouges exist in the steel containment at the bottom of the structure. Until the recent removal of the layer of talc, Caspian believes that none of its personnel were aware of any compromise of the integrity of this structure.

This recent finding accordingly causes us to amend Caspian's general response to your Question 10 posed on July 19, 1990, regarding "any occurrence of a collapse or actual compromise of a structure," and Caspian's structure-specific response to that question for the maskant dip structure. As noted in its closure application, Caspian believes that the steel containment of the maskant dip structure is underlain by a concrete containment pad and may be encased in concrete on the sides as well. Caspian believes that the borings proposed by Applied Geosciences constitute an adequate investigation of the structure for closure, perhaps supplemented by soil sampling in the vicinity of the gouges.

If you have any questions concerning any of the above, please do not hesitate to contact me. We will keep you informed as this situation is further evaluated and resolved.

Very truly yours,

Allen D. Haynie
of LATHAM & WATKINS

cc: L. Collins

Miller, 1991

Thurlow

RICHARD J. NEELY
ASSISTANT DISTRICT ATTORNEY

BRIAN E. MICHAELS
CHIEF DEPUTY DISTRICT ATTORNEY

RICHARD C. FRAME
CHIEF INVESTIGATOR

OFFICE OF
THE DISTRICT ATTORNEY
COUNTY OF SAN DIEGO

EDWIN L. MILLER, JR.
DISTRICT ATTORNEY

101 W. BROADWAY, SUITE 700
SAN DIEGO, CA 92101-8208
(619) 531-4070

May 8, 1991

FYI

Mr. John Misleh, Supervising Hazardous Materials Specialist
San Diego County Department of Environmental Health Services
1255 Imperial Avenue
P.O Box 85261
San Diego, CA 92138-5261

Re: People v Caspian Incorporated
Court Number: F138739
My Case Number: B86036

Dear John:

On May 7th, before the Honorable Charles L. Patrick, Caspian Incorporated pled guilty to felony violations of Health and Safety Code Section 25189.5(a)(b) and Water Code Section 13387(c). Under the plea agreement, the District Attorney's Office dismissed six misdemeanor charges and agreed on behalf of all members of the San Diego Hazardous Waste Task Force that the guilty plea to the two felony counts terminated the investigation and criminal or civil prosecution of Caspian Incorporated, and its current or past shareholders, officers, employees and agents for any federal or state violations that relate to or arise out of the facts underlying the criminal complaint or any information obtained by any members of the Task Force during the investigation which led up to the criminal complaint.

Caspian Incorporated was placed on five years probation to the court on the following terms and conditions:

1. For the felony violation of Health and Safety Code Section 25189.5(a)(b), Caspian Incorporated will pay a penalty of $60,000.00 (sixty thousand dollars) within thirty days; which is payable to the Department of Revenue and Recovery for apportionment under Health and Safety Code section 25192.

2. For the felony violation of Water Code Section 13387(c), Caspian Incorporated will pay a penalty of $565.00 (five hundred and sixty five dollars) within thirty days; which is payable to the Department of Revenue and Recovery and which will be paid to the State Water Pollution Cleanup and Abatement Account pursuant to Water Code Section 13387(h).

3. Caspian Incorporated will within thirty days, reimburse the County of San Diego Department of Health Services, Hazardous Materials Management Division, the amount of $13,775.00 (thirteen thousand seven hundred seventy five dollars) for their investigative and laboratory costs associated with this investigation.

4. Caspian Incorporated will within thirty days reimburse the City of San Diego Metropolitan Industrial Waste Program (Check to be made out to the City Treasurer) the amount of $15,660.00 (fifteen thousand six hundred and sixty dollars) for their investigative and laboratory costs associated with this investigation.

5. Caspian Incorporated will (with regard to environmental matters) submit its facilities in San Diego County to search and seizure at any time with or without a warrant and with or without probable cause when requested to do so by any peace officer or any regulatory agency.

6. Caspian Incorporated agreed not violate any same or similar law.

The credit for the successful resolution in this case goes to you, your staff and the other members of the Environmental Task Force who participated in the investigation of this case.

If you have any questions, please call me at 531-3597.

Sincerely,

EDWIN L. MILLER, JR.
District Attorney

James Pitts

JAMES E. PITTS
Deputy District Attorney
Fraud Division

Quinlan, 1992

DUDEK & ASSOCIATES, INC.

605 Third Street
Encinitas, CA 92024
(619) 942-5147 • Fax No. (619) 632-0164

September 21, 1992 462-01

Ms. Pamela Villa Clay
Hazardous Materials Management Division
County of San Diego
P.O. Box 85262
San Diego, CA 92186-5261

Re: Transmittal of Results of Subsurface Investigation at the Caspian Inc. Facility, 4951 Ruffin Road, San Diego, California, 92123, HMMD File No. H07938-003

Dear Ms. Clay:

Pursuant to the request expressed by the Hazardous Materials Management Division (HMMD) and the San Diego Regional Water Quality Control Board (RWQCB) in our meeting of 27 July 1992, transmitted herewith are the tabulated results of soil sampling around the below-grade processing structures (BGPS) at the Caspian, Inc. facility, lithologic logs of the soil borings, and maps indicating the locations of the soil borings.

In November of 1991, in accordance with the approved tank closure Permit No. H07938, which specified the number of samples and methods of analysis, Hargis & Associates, Inc. collected thirty-two discrete grab samples and two composite soil samples from thirteen soil borings located adjacent to the four BGPSs at the facility (Tables 1 and 2; Figure 1). These soil samples were variously analyzed for constituents known to have been present in the BGPSs including fluoride, nitrate, sulfide, total butanol, tetrachlorethylene (PCE), triethanolamine, and pH. Subsequently, in February 1992, Hargis & Associates, Inc. collected sixteen composite soil samples of cuttings generated during the drilling of the soil borings adjacent to BGPS-14, BGPS-15, and BGPS-81 (Table 2). The composite soil samples from the soil cuttings associated with BGPS 14 and 15 were analyzed for aluminum while the composite soil samples from soil cuttings associated with BGPS-81 were analyzed for titanium. In March 1992, an additional nine discrete grab samples and two composite soil samples were collected from four additional soil borings adjacent to the Maskant BGPS and BGPS-81 (Table 1). These soil samples were variously analyzed for total butinol, PCE, titanium, and pH. The last four soil borings, SB-14 through SB-17 were drilled adjacent to earlier soil borings in an effort to penetrate to greater depth. Soil boring SB-14 was drilled approximately 14 inches from soil boring SB-5. Soil boring SB-15 was drilled approximately 2.5 feet from soil boring SB-3. Soil boring SB-17 was drilled adjacent to SB-7 and soil boring SB-16 was drilled adjacent to SB-13 (Figure 1). The tabulated results of laboratory analyses of these soil samples were submitted to HMMD in letters on April 15, 1992 and May 27, 1992. The documentation of the composite soil sample collection procedures was submitted to HMMD in a letter May 18, 1992. On May 7, 1992, the summary of

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all soil sample laboratory data, indicating location of all soil borings, and lithologic logs prepared by Hargis & Associates, Inc. were submitted to Kevin Heaton of HMMD.

The lithologic logs submitted to HMMD are transmitted herewith (Table 3). Also attached is a site plan presenting the locations of the soil borings and results of chemical analysis of soil samples from each of the borings (Figure 2) and a cross section of Maskant BGPS area (Figure 3). The cross section has been included to display the subsurface lithology and the distribution and extent of PCE detected in soils in the area of the Maskant BGPS.

The site is immediately underlain by near shore deposits of the Linda Vista Formation (Kennedy 1975[1]). These sediments were logged as silty sands that extend to depths of approximately 15 -20 feet below land surface (bls) with the upper 5-10 feet containing abundant cobbles. The sediments below the silty sands are logged as a cobble conglomerate with a silty sand matrix that extends to approximately 30-35 feet bls. These sediments may be part of the Poway Group Conglomerates. The sediments below the cobble conglomerate are logged as a silty sand or sandy silt to the total depth explored of 81 feet. These sediments may be Friars or Mission Valley Formation. With exception of a few thin lenses of well sorted sand, all of the sediments described in the lithologic logs would be expected to be of relatively low permeability. The saturated hydraulic conductivity of unconsolidated silty sands and fine sands typically ranges from 1 X 10^{-3} to 1 X 10^{-5} centimeters per second (Fetter, 1988[2]). The unsaturated hydraulic conductivity would be less.

Borelogs? samples obtained?

In general, the highest concentrations of all chemicals were detected in a limited number of borings near the surface (less than 10-20 feet bls) and decrease rapidly with depth. In the area of BGPS-14, soil samples were analyzed for sulfide. No sulfide was detected in soil samples collected from borings SB-10, SB-11 or SB-12, except soil samples collected at depths from 20 to 30 feet bls which contained concentrations ranging from 0.20 to 12 milligrams per kilogram (mg/kg). In the area of BGPS-15, soil samples from borings SB-1, SB-6, SB-8 and SB-9 were analyzed for sulfide and triethanolamine. Sulfide was not detected in any of the soil samples. Only samples from the angled borings SB-8 and SB-9 contained detectable concentrations of triethanolamine. The highest concentrations of triethanolamine were 240 and 350 mg/kg in samples collected from 15 and 16 feet bls. Concentrations in samples collected from 20 to 30 feet bls decreased with depth from 67 to 30 mg/kg. Soil samples from borings SB-7, SB-13, SB-16 and SB-17 in the area of BGPS-81 were analyzed for fluoride, nitrate and titanium. Fluoride concentrations ranged from 92.6 to 28.8 mg/kg in samples collected from depths of 5 to 25 feet bls. One sample was collected at a depth of 30 feet below the surface and contained a concentration of 1.2 mg/kg fluoride. Nitrate concentrations in soil samples ranged from 1.6 to 14.4 mg/kg with no apparent pattern. Only soil samples from borings SB-16 and SB-17 were analyzed for titanium. In boring SB-16, the highest concentration of titanium was 953 mg/kg in the sample from 25 feet bls and then decreased to 106 mg/kg at 30 feet bls. In SB-17, the highest concentration was 770 mg/kg in the sample collected at 20-23 feet bls and decreased to 78.4 mg/kg at 25 feet and 98.6 mg/kg at 30 feet below the surface.

1 Kennedy, M. P., 1975. Geology of the San Diego Metropolitan Area, California, Section A, Western San Diego Metropolitan Area, California Division of Mines and Geology, 39 p.

2 Fetter, C. W., 1988. Applied Hydrogeology Second Edition, Merrill Publishing Company, 592 pp.

PCE was detected in the vicinity of the Maskant BGPS. The only soil samples containing concentrations of PCE greater than 10 mg/kg were the samples collected from SB-3 and SB-5 at a depth of 10 feet below the land surface (bls). These soil samples contained concentrations of PCE of 190 and 62 mg/kg, respectively. These samples were the shallowest samples collected from those borings. The bottom of the Maskant BGPS is twenty feet bls. Overall, the PCE concentrations decrease with increasing depth. Typically, the highest concentration of PCE in uniform subsurface sediments would be expected to occur near the possible source of a release. In this case, the highest concentrations were observed in samples obtained at shallow depths. What is source? BGPS ? or Building operations?

PCE and trichloroethylene (TCE) have very similar physical properties and the California Maximum Contaminant Level for drinking water is 5 micrograms per liter (ug/l) for both compounds. No California Title 22 threshold limits exist for PCE, so it is useful to use the TCE limits for a comparison purpose. According to Title 22 requirements, soils containing a total concentration (TTLC) of less than 2,040 milligrams per kilogram (mg/kg) TCE and soluble concentration (STLC) of less than 204 milligrams per liter (mg/l) TCE may be treated as non-hazardous waste. The maximum concentration of PCE detected in soil samples from the area of Maskant BGPS is 190 mg/kg, more than order of magnitude below the TTLC for TCE. In the unlikely event that all of the PCE were soluble, the detected concentration is still below the STLC for TCE.

Groundwater was not encountered within any of the borings to the maximum depth explored of 81 feet. Saturated soil was noted in the lithologic log from boring SB-1 at depths from 59.5 - 61.0 feet bls; however, the underlying soil to the depth of 81 feet was described as slightly moist. The actual depth to groundwater is unknown, but is expected to be greater than 100 feet. The site is located at an elevation of approximately 420 feet mean sea level on the relatively level Kearney Mesa. Approximately 1,400 feet east of the site at the edge of the mesa, the ground slopes steeply down to the bottom of Murphy Canyon at an elevation of approximately 200 feet msl. Water has not been noted seeping out of the bank of the slope. Water seepage would indicate a groundwater elevation higher than the canyon bottom.

Given the low concentrations of PCE detected (relative to the TTLC and STLC of TCE) the sharp decrease in PCE concentrations with depth, the relatively low permeability expected in the soils below the site and the great depth to groundwater, further investigation into the distribution of PCE in the vicinity of the Maskant BGPS does not appear to be warranted.

As discussed in our meeting, three additional soil samples will be collected from those locations from which only composite samples exist. The locations that will be resampled are those in which highest concentrations of aluminum were detected from the borings near BGPS 14 and 15, and those in which the highest concentrations of titanium were detected in soil samples collected from the borings near BGPS 81. Those locations have been identified as follows:

BGPS 14	Boring SB-11	0-16 feet	Al 19,800 mg/kg;
BGPS 15	Boring SB-8	0-20 feet	Al 16,500 mg/kg;
BGPS 81	Boring SB-13	0-19 feet	Ti 2,980 mg/kg.

For reference, the normal range of aluminum in soil samples in the western United States is 29,000 - 116,000 mg/kg (Shacklette and Boerngen, 1984[3]).

A new boring will be drilled next to each of the locations listed. Based on the composite soil sample results and the depths from which discrete soil samples were collected which contained the highest constituent concentrations, soil samples will be obtained adjacent to boring SB-11 at depth of 16 feet, adjacent to boring SB-8 at a depth of 16 feet and adjacent to boring SB-13 at a depth of 19 feet. The soil samples will be obtained by drilling to the appropriate depth with a hollow-stem auger drill rig. A split spoon sampler equipped with brass tubes will then be driven ahead of the bit to obtain a discrete grab sample from the desired depth. The brass tubes will be sealed on both ends with teflon lined plastic caps. The samples will then be placed on ice and delivered to a state certified laboratory for analysis. Borehole lithology will be logged by a geologist onsite during drilling. The cuttings from the boreholes will be stored on site in labeled 17-H DOT approved 55 gallon drums.

Rather than analyzing the soil samples for selected metals contained in alloys specifically used at the site, the soil samples will be analyzed by a state certified laboratory for the total recoverable concentration of all of the Title 22 CAM metals.

Based on our understanding of the discussions at our 27 July, 1992 meeting, this letter, attachments and the proposed work will address all the concerns expressed by HMMD and RWQCB. If you have any requirements that have not been addressed or any additional recommendations, please contact me at 942-5147.

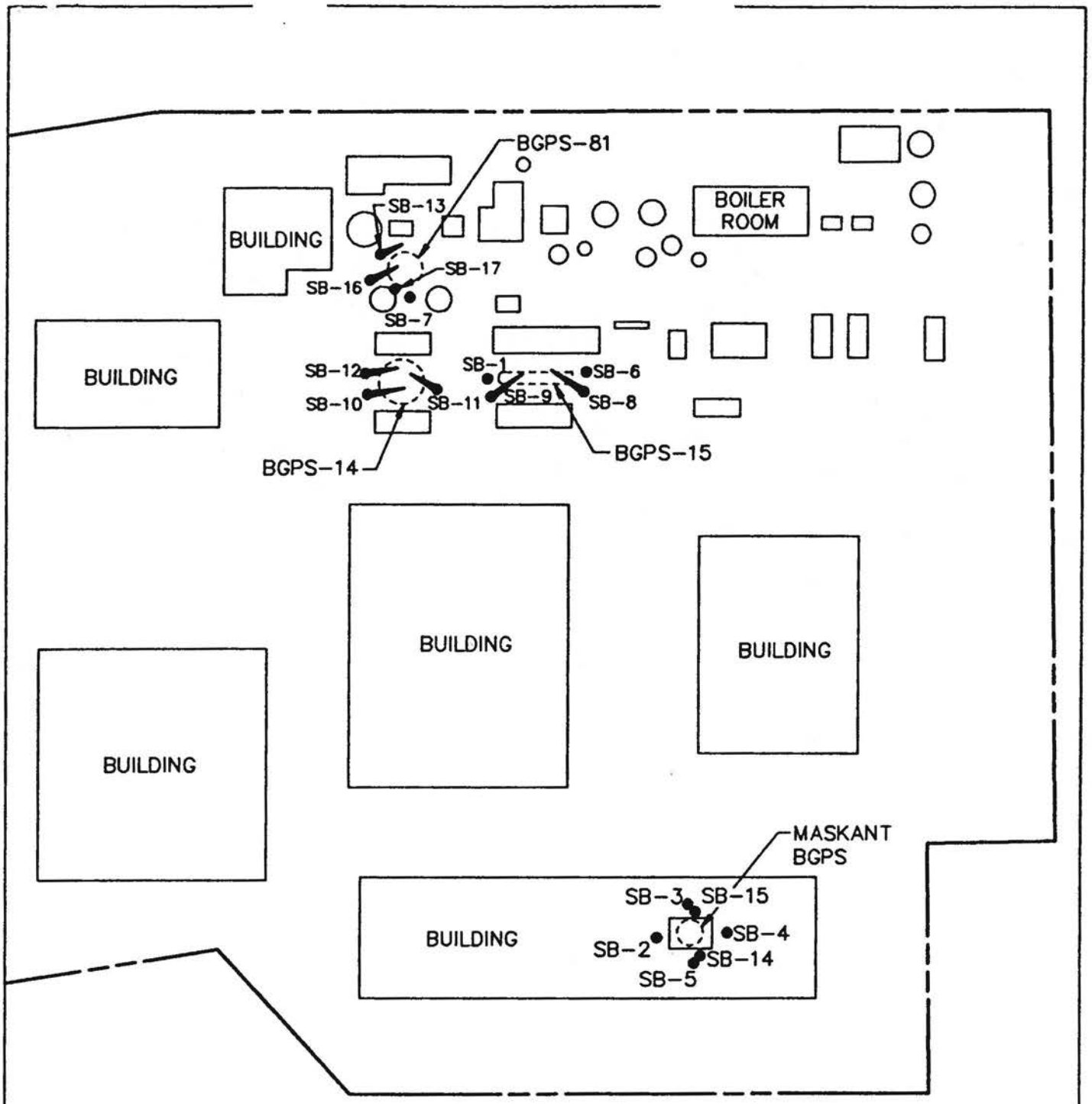
Very truly yours,

Dudek & Associates, Inc.

Peter T. Quinlan, Project Manager
Hydrogeology/Hazardous Waste Division

cc: Linda Collins, Caspian, Inc.
Cory Walsh, RWQCB
Steve McDonald, Luce, Forward, Hamilton & Scripps

3 Shacklette, H. T. and Boerngen, J. G., 1984. Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States. U.S. Geological Survey Paper 127, 105 pp.



LEGEND

ANGLE SOIL BORING LOCATION

SOIL BORING LOCATION

BELOW GRADE PROCESSING STRUCTURE

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

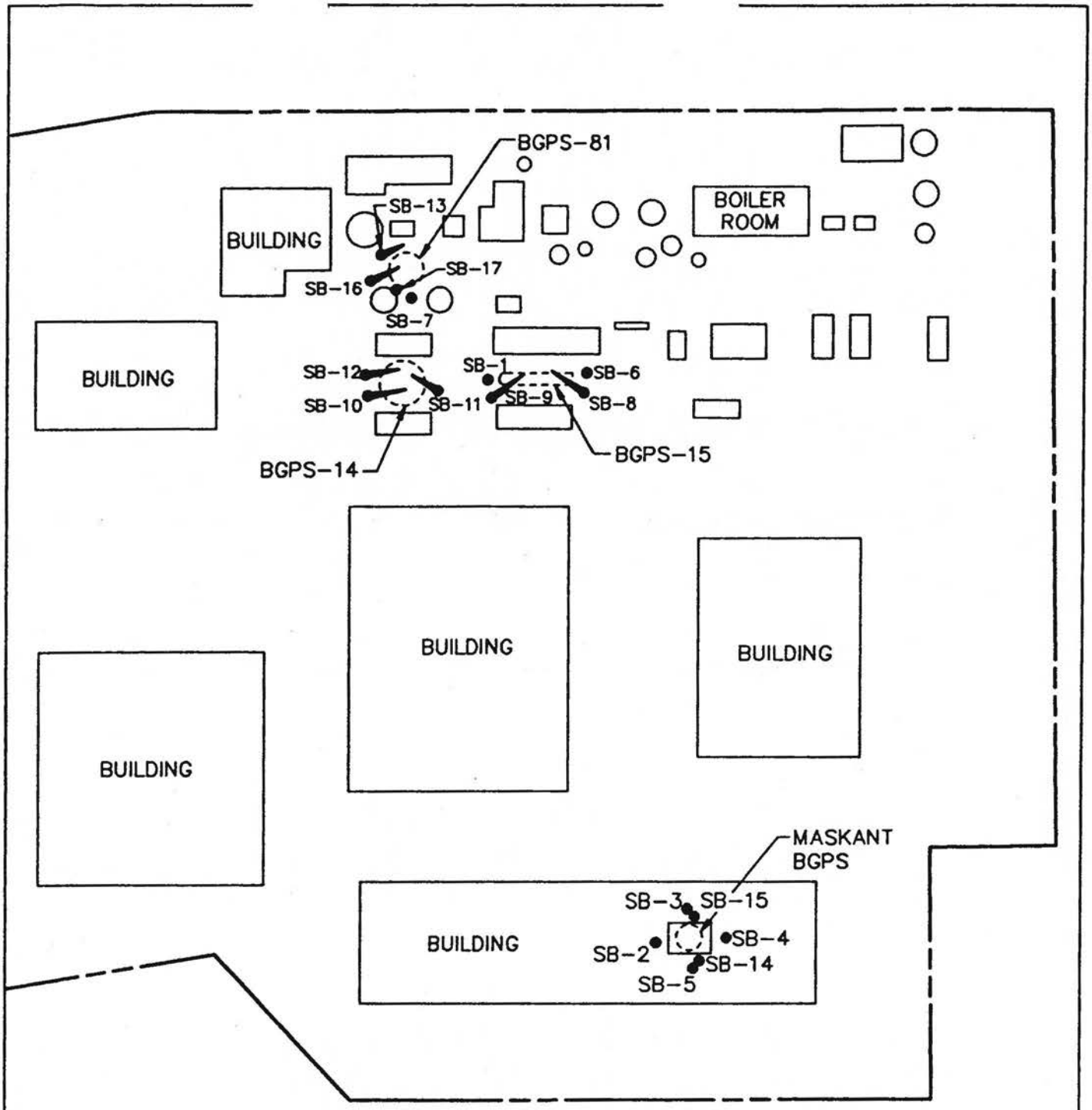
0 100

FEET

FIGURE 1

LOCATION OF SOIL BORINGS

DUDEK & ASSOCIATES, INC.



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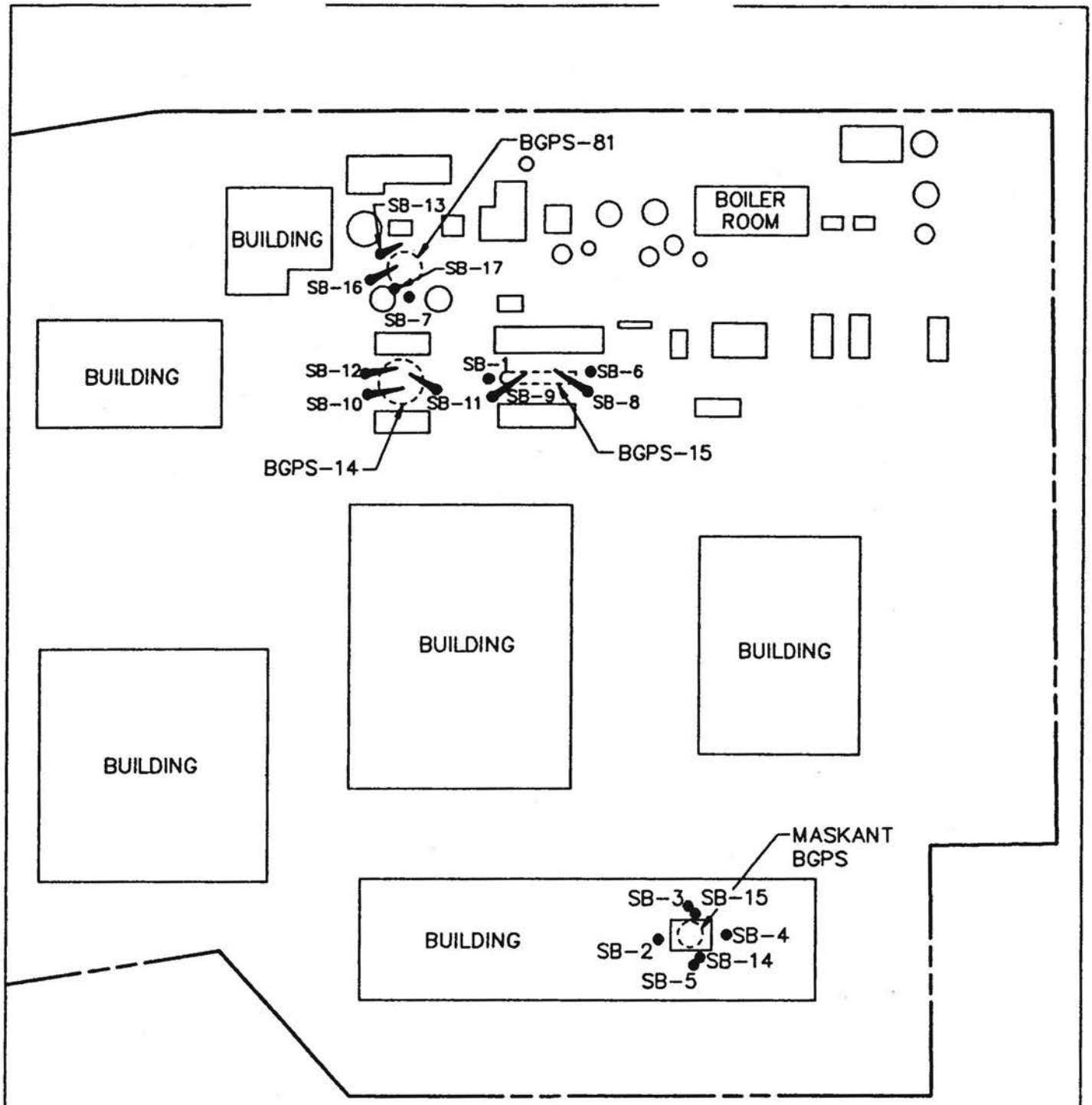

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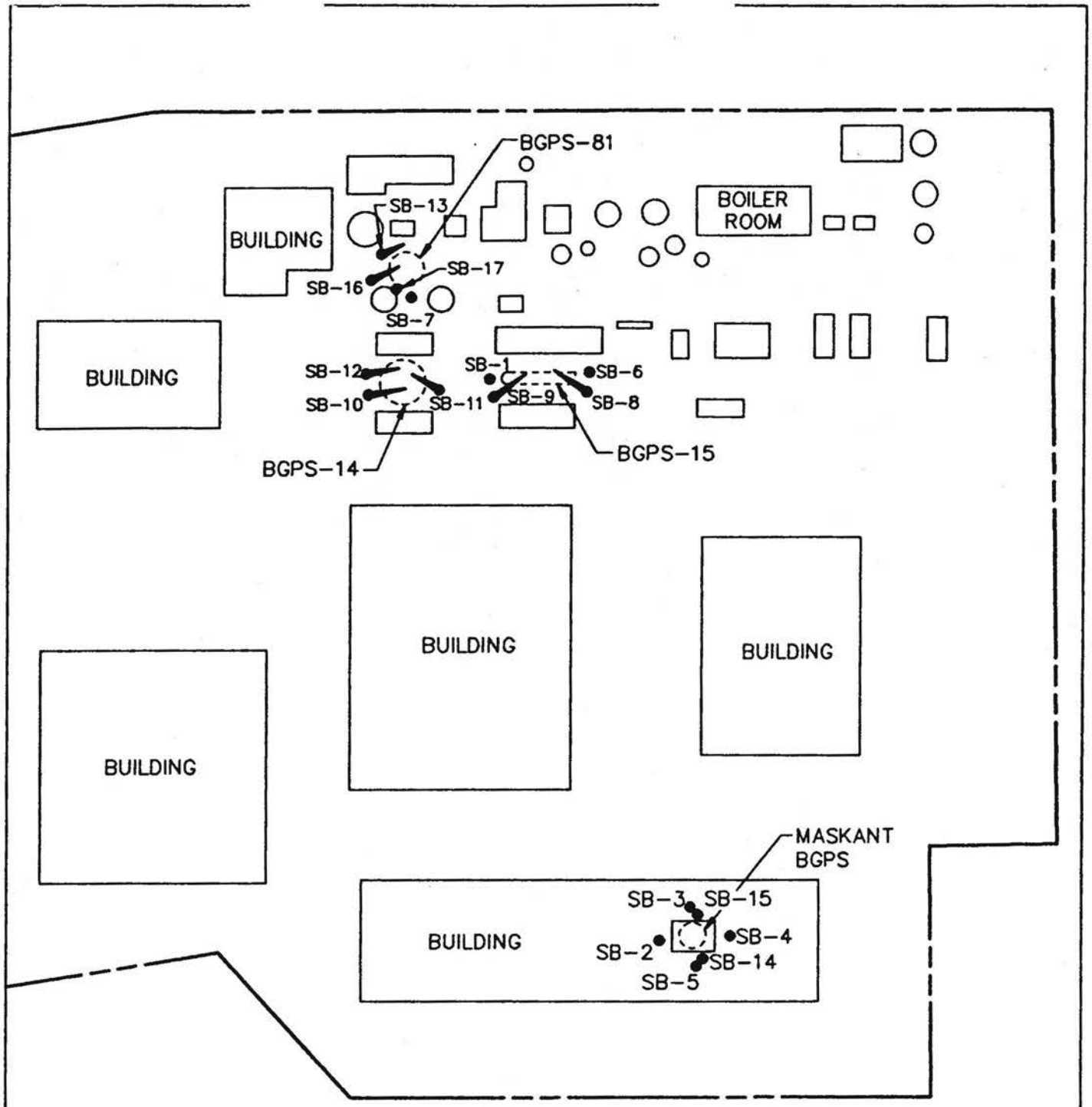

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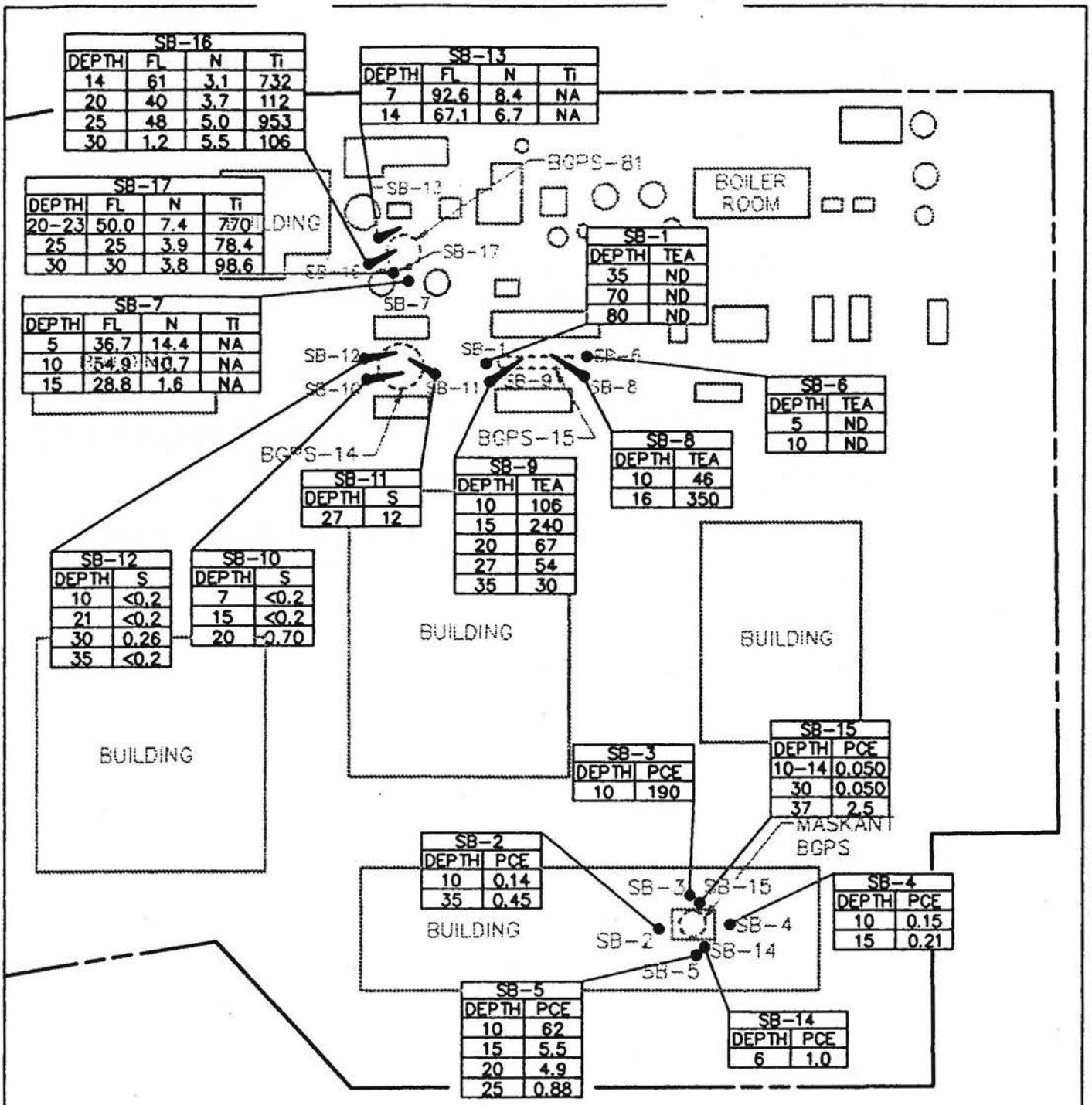


LEGEND

SB-16			
DEPTH	FL	N	Ti
14	61	3.1	7.32

SOIL BORING IDENTIFIER WITH DEPTH OF SAMPLE IN FEET BELOW LAND SURFACE AND CONSTITUENT CONCENTRATION IN MILLIGRAMS PER KILOGRAM

ANGLE SOIL BORING LOCATION

SOIL BORING LOCATION

BELOW GRADE PROCESSING STRUCTURE

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

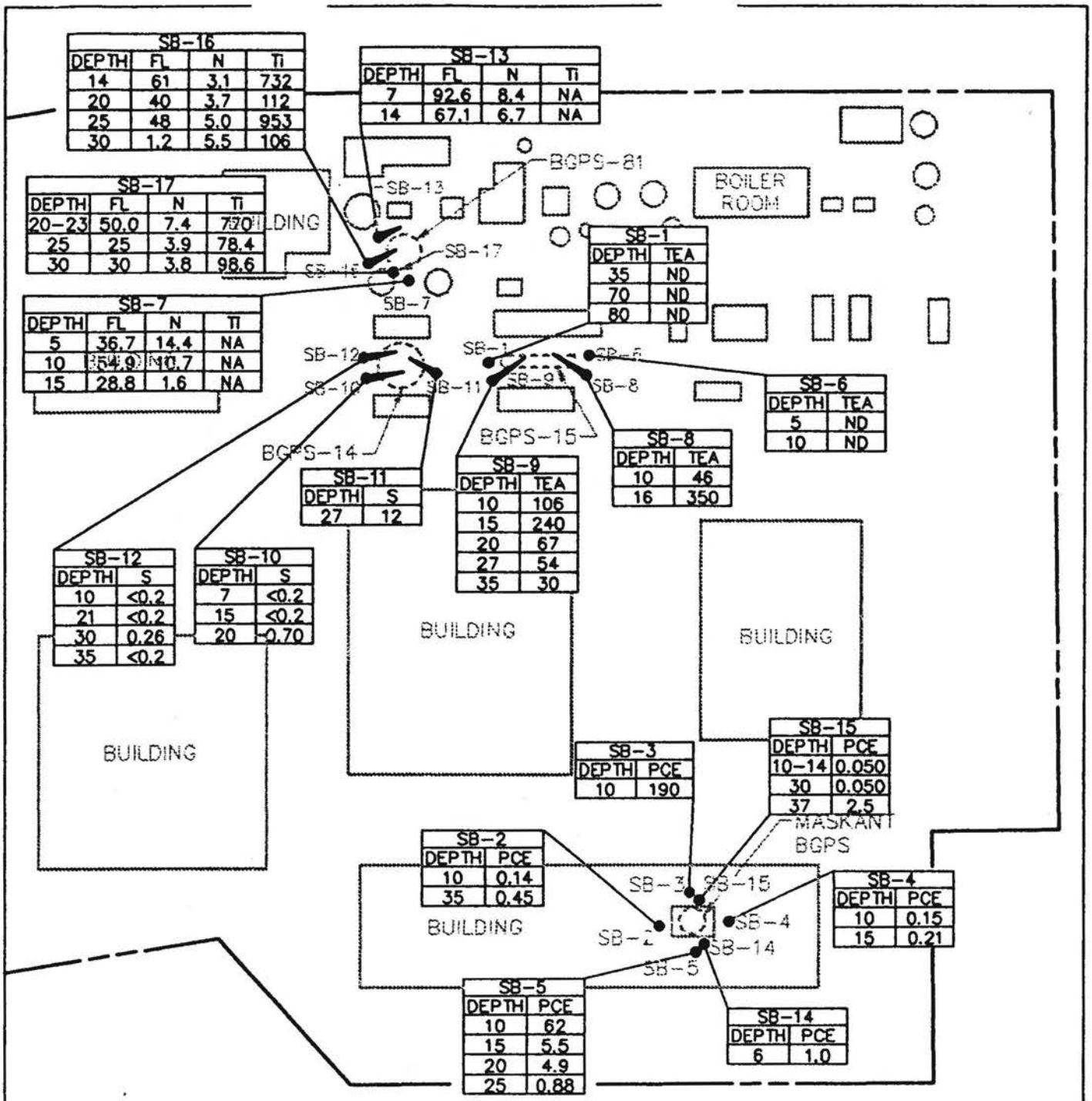
0 100 FEET

FL = FLOURIDE
N = NITRATE
Ti = TITANIUM
S = SULFIDE
TEA = TRIETHANOLAMINE
PCE = TETRACHLOROETHYLENE
ND = NOT DETECTED
A? ??

FIGURE 2

RESULTS OF CHEMICAL ANALYSIS

DUDEK & ASSOCIATES, INC.



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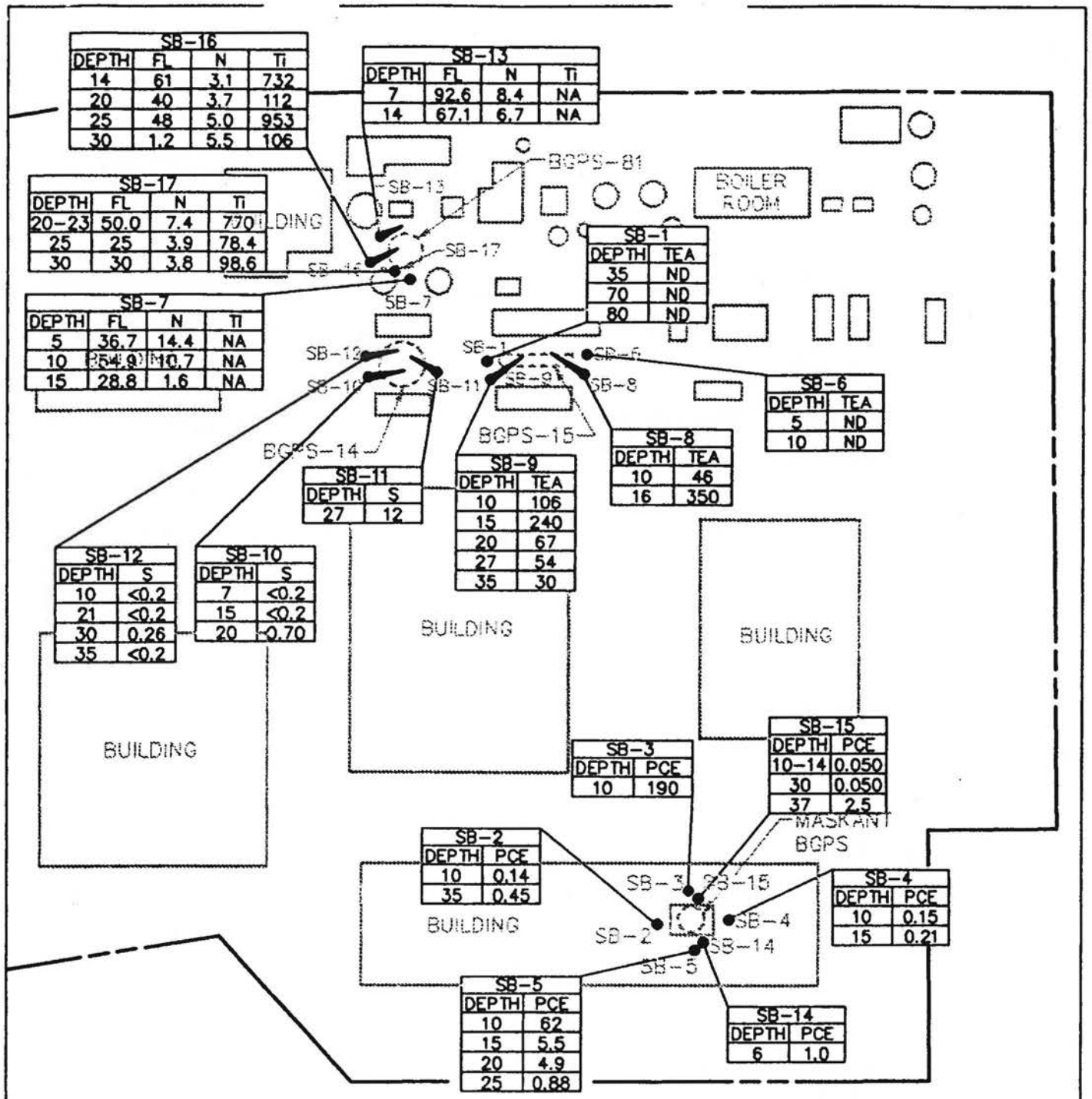

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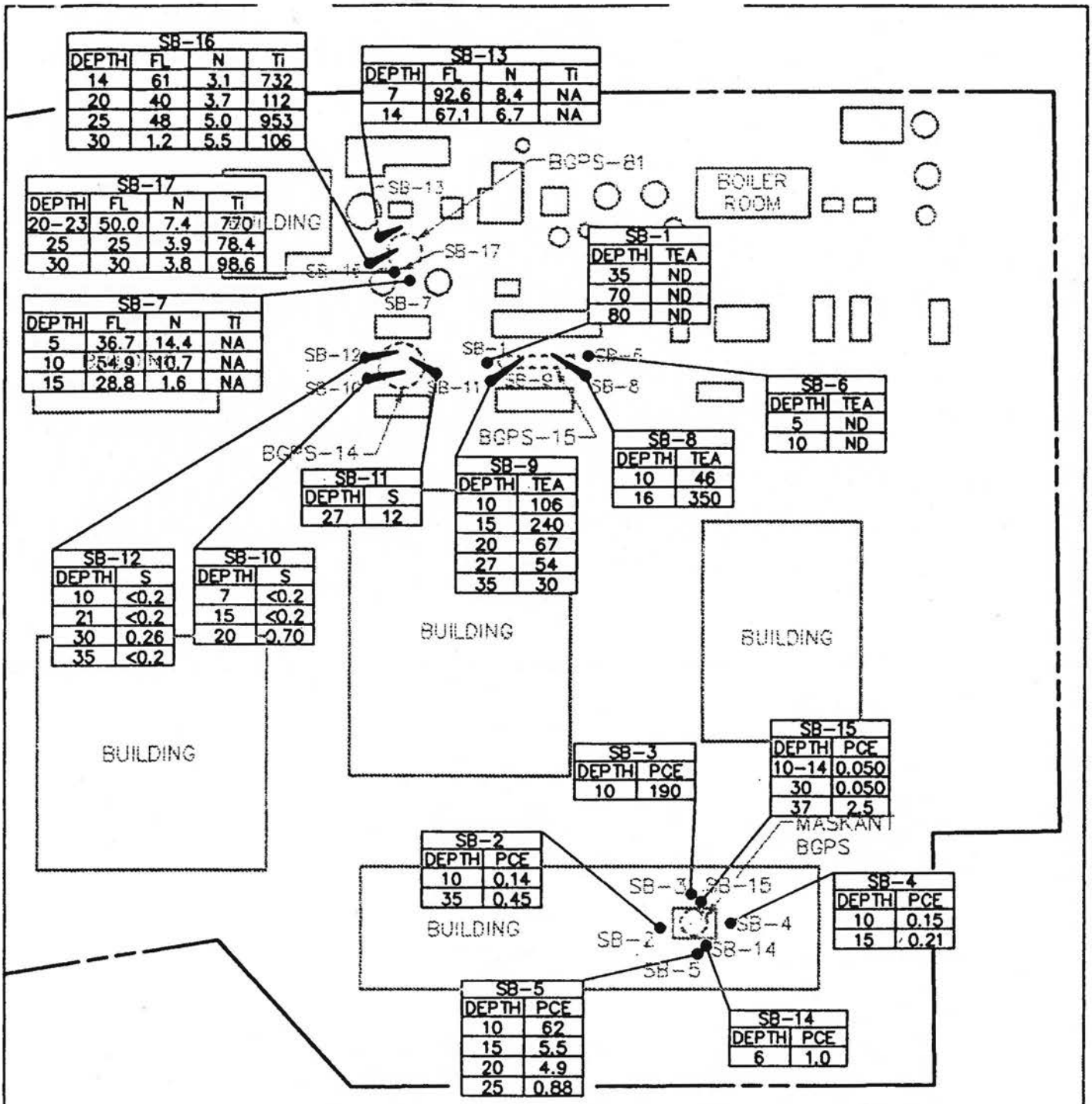

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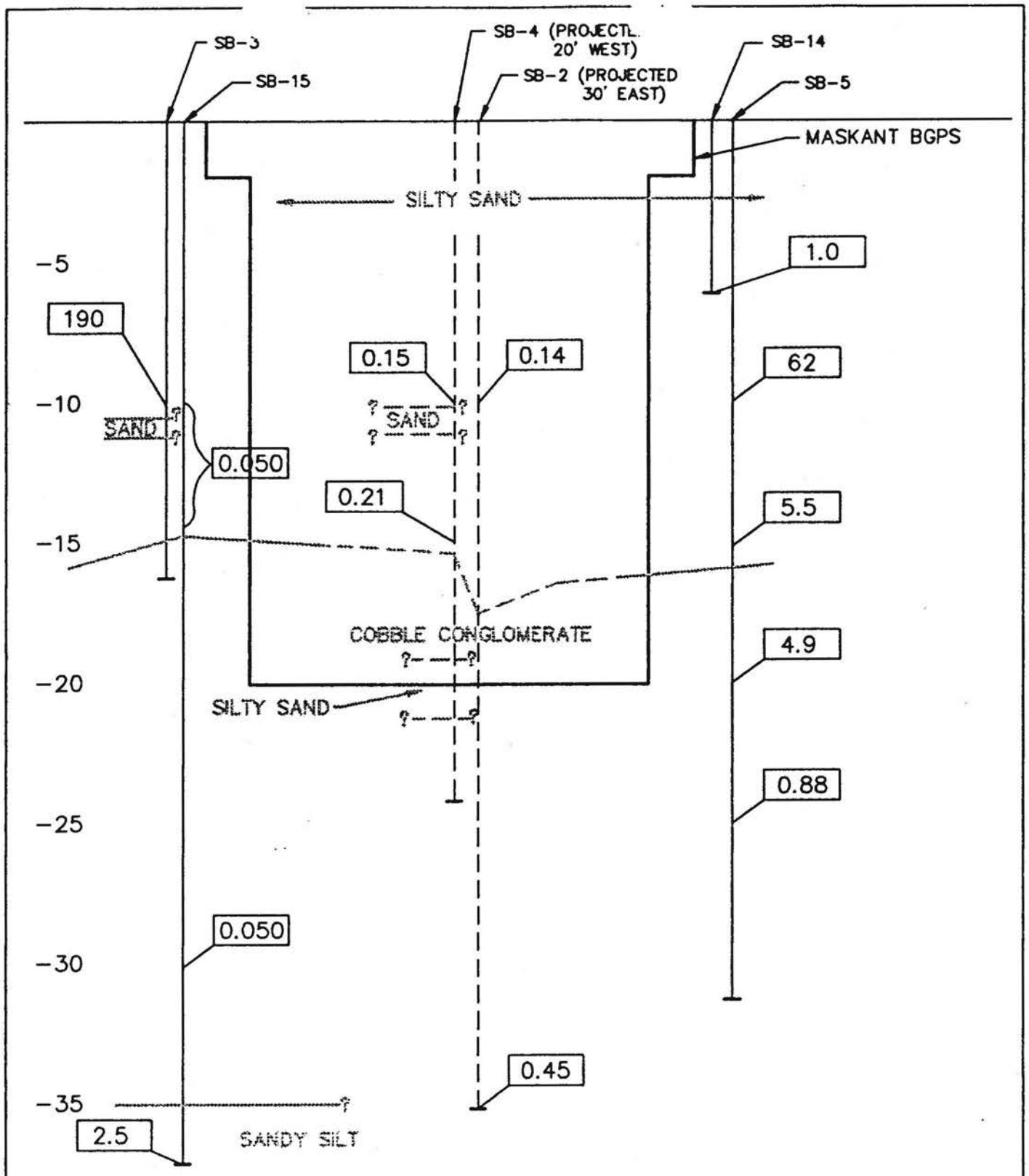


LEGEND

0.15 — CONCENTRATION OF TETRACHLOROETHYLENE (PCE) IN MILLIGRAMS PER KILOGRAM

SCALES

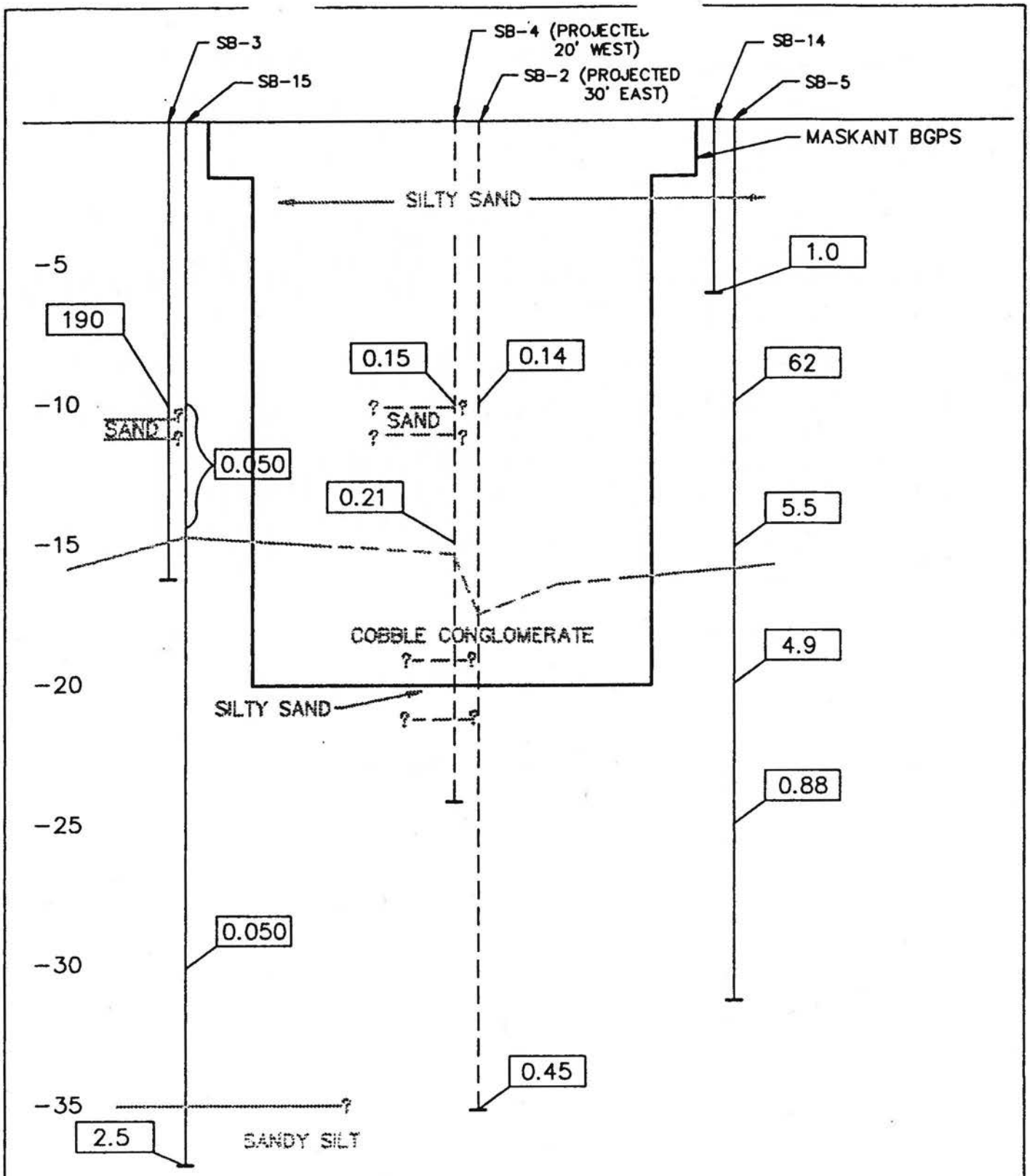
1"=10' HORIZ.
1"=5' VERT.

ALL LOCATIONS AND DIMENSIONS ARE APPROCIMATE

FIGURE 3

MASKANT BGPS CROSS SECTION

DUDEK & ASSOCIATES, INC.



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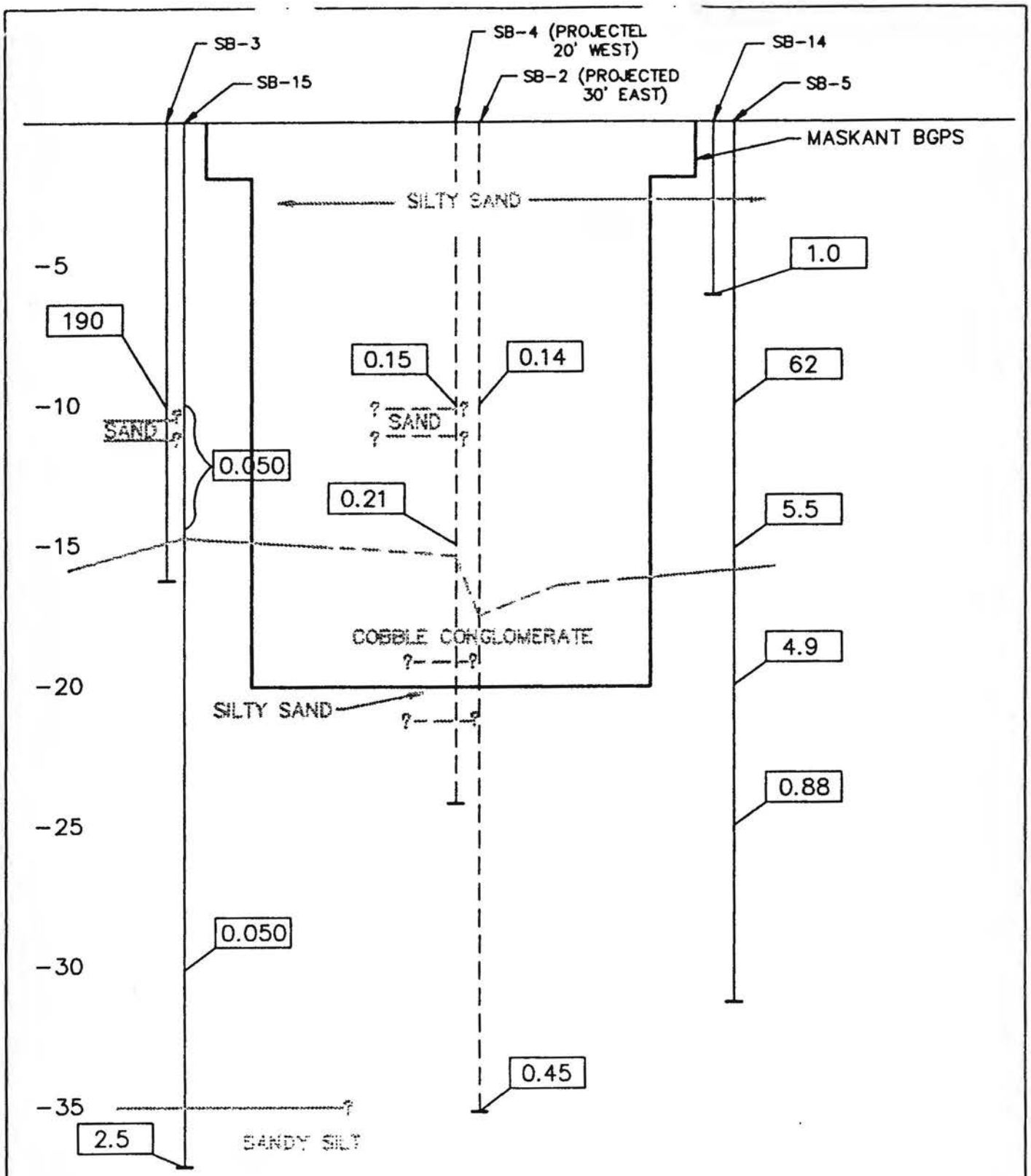

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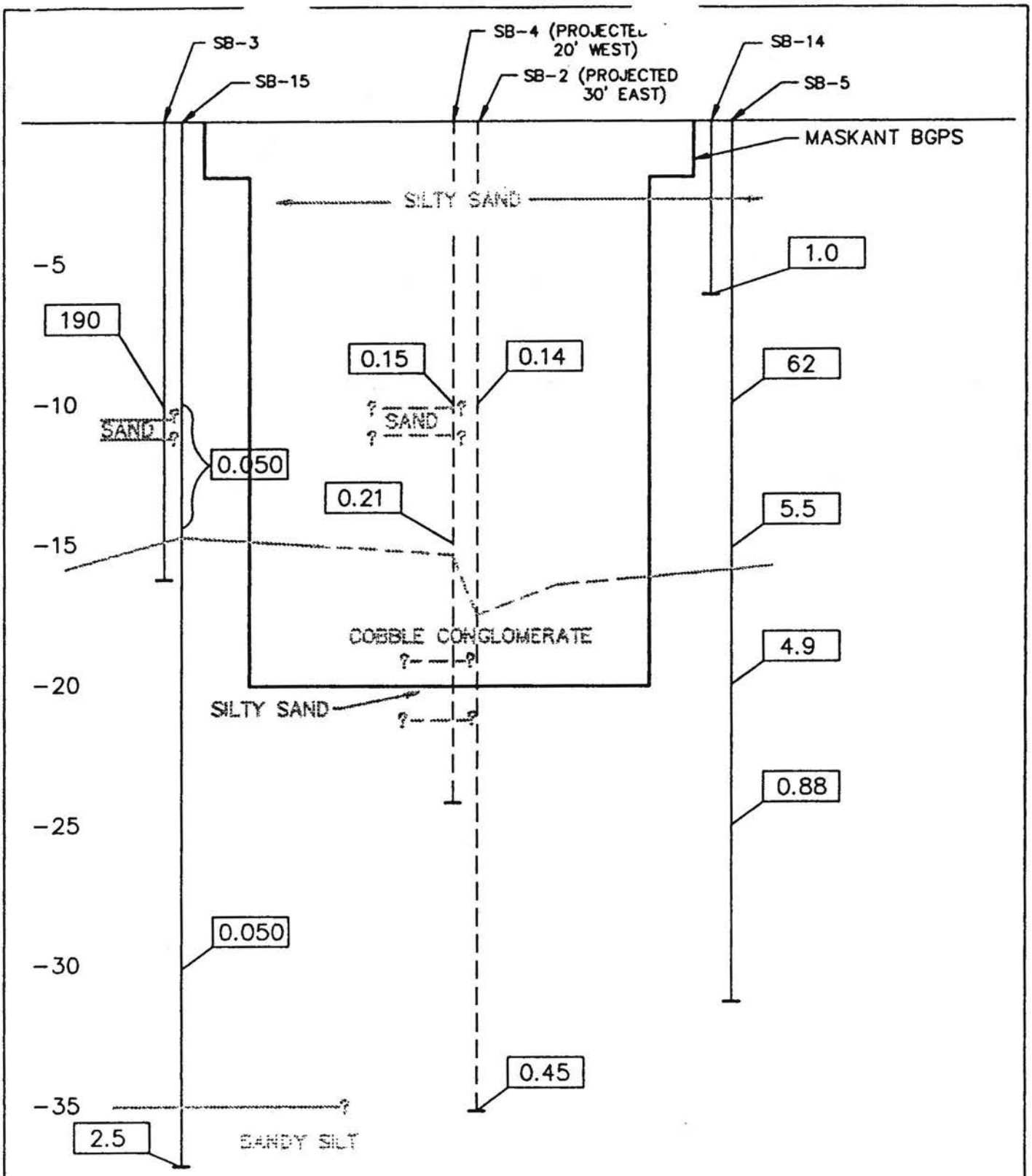

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MASKANT BGPS CROSS SECTION

DUDEK & ASSOCIATES, INC.

TABLE 1

CASPIAN-KEARNEY MESA
SOIL SAMPLE ANALYTICAL RESULTS

TANK IDENTIFIER	SOIL BORING	SOIL SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE DEPTH (feet bls)	FLOURIDE	NITRATE	SULFIDE	TOTAL BUTANOL*	PCE	TRI-ETHANOLAMINE	TITANIUM	ALUMINUM	pH
					.....Concentrations in milligram per kilogram.....								
MASKANT													
	SB-2	SB-2-10	11-19-91	10	---	---	---	4.0	0.14	---	---	---	---
		SB-2-35	11-19-91	35	---	---	---	<1.0	0.45	---	---	---	---
→	SB-3	SB-3-10	11-19-91	10	---	---	---	<1.0	190	---	---	---	---
	SB-4	SB-4-10	11-19-91	10	---	---	---	<1.0	0.15	---	---	---	---
		SB-4-15	11-19-91	15	---	---	---	<1.0	0.21	---	---	---	---
	SB-5	SB-5-10	11-19-91	10	---	---	---	<1.0	62	---	---	---	---
		SB-5-15	11-19-91	15	---	---	---	<1.0	5.5	---	---	---	---
		SB-5-20	11-19-91	20	---	---	---	<1.0	4.9	---	---	---	---
		SB-5-25	11-19-91	25	---	---	---	<1.0	0.88	---	---	---	---
	SB-14	SB-14-6	03-04-92	6	---	---	---	<1.0	1.0	---	---	---	---
→	SB-15	AC-15-10-14	03-04-92	10-14	---	---	---	<1.0	0.050	---	---	---	---
		SB-15-30	03-04-92	30	---	---	---	<1.0	0.050	---	---	---	---
		SB-15-37	03-04-92	37	---	---	---	<1.0	2.5	---	---	---	---

* = Soil sample was obtained from drill cuttings

Total Butanol* = Summation of N-butanol, tertiary butanol and isobutanol
bls = Below land surface
< = Less than
--- = Not analyzed
ND = Not detected

SB-3
SB-15 } Basically @ The Same Spot

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TABLE 1 (continued)
CASPIAN-KEARNEY MESA
SOIL SAMPLE ANALYTICAL RESULTS
Page 2

TANK IDENTIFIER	SOIL BORING	SOIL SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE DEPTH (feet bls)	FLOURIDE	NITRATE	SULFIDE	TOTAL * BUTANOL	PCE	TRI-ETHANOLAMINE	TITANIUM	ALUMINUM	pH
					.....Concentrations in milligram per kilogram.....								
TANK 14													
	SB-10	SB-10-7	11-23-91	7	---	---	<0.2	---	---	---	---	---	9.0
		SB-10-15	11-23-91	15	---	---	<0.2	---	---	---	---	---	9.9
		SB-10-20	11-23-91	20	---	---	0.70	---	---	---	---	---	10.4
	SB-11	*AC-SB-11-27	11-23-91	27	---	---	12	---	---	---	---	---	11.1
	SB-12	SB-12-10	11-23-91	10	---	---	<0.2	---	---	---	---	---	10.0
		SB-12-21	11-23-91	21	---	---	<0.2	---	---	---	---	---	10.4
		SB-12-30	11-23-91	30	---	---	0.26	---	---	---	---	---	9.8
		SB-12-35	11-23-91	35	---	---	<0.2	---	---	---	---	---	8.8
TANK 15													
	SB-1	SB-1-35	11-18-91	35	---	---	<0.2	---	---	ND	---	---	9.2
		SB-1-70	11-22-91	70	---	---	<0.2	---	---	ND	---	---	9.1
		SB-1-80	11-22-91	80	---	---	<0.2	---	---	ND	---	---	8.8
	SB-6	SB-6-5	11-20-91	5	---	---	<0.2	---	---	ND	---	---	12.1
		SB-6-10	11-20-91	10	---	---	<0.2	---	---	ND	---	---	11.9
	SB-8	SB-8-10	11-22-91	10	---	---	<0.2	---	---	46	---	---	11.5
		*AC-4-16	11-22-91	16	---	---	<0.2	---	---	350	---	---	11.3

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TABLE 1 (continued)
CASPIAN-KEARNEY MESA
SOIL SAMPLE ANALYTICAL RESULTS
Page 3

TANK IDENTIFIER	SOIL BORING	SOIL SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE DEPTH (feet bls)	FLUORIDE	NITRATE	SULFIDE	TOTAL * BUTANOL	PCE	TRI-ETHANOLAMINE	TITANIUM	ALUMINUM	pH
					...Concentrations in milligram per kilogram...								
TANK 15 (cont)	SB-9	SB-9-10	11-22-91	10	---	---	<0.2	---	---	106	---	---	11.5
		SB-9-15	11-22-91	15	---	---	<0.2	---	---	240	---	---	11.2
		SB-9-20	11-22-91	20	---	---	<0.2	---	---	67	---	---	11.4
		SB-9-27	11-22-91	27	---	---	<0.2	---	---	54	---	---	11.0
		SB-9-35	11-22-91	35	---	---	<0.2	---	---	30	---	---	10.0
TANK 81													
	SB-7	SB-7-5	11-20-91	5	36.7	14.4	---	---	---	---	---	---	5.9
		SB-7-10	11-20-91	10	54.9	10.7	---	---	---	---	---	---	5.3
		SB-7-15	11-20-91	15	28.8	1.6	---	---	---	---	---	---	5.9
	SB-13	SB-13-7	11-26-91	7	92.6	8.4	---	---	---	---	---	---	4.8
			11-26-91	14	67.1	6.7	---	---	---	---	---	---	4.7
	SB-16	SB-16-14	03-05-92	14	61.0	3.1	---	---	---	---	732	---	5.1
		SB-16-20	03-05-92	20	40.0	3.7	---	---	---	---	112	---	5.7
		SB-16-25	03-05-92	25	48.0	5.0	---	---	---	---	953	---	5.7
		SB-16-30	03-05-92	30	1.2	5.5	---	---	---	---	106	---	7.5
	SB-17	*AC-17-20-23	03-05-92	20-23	50.0	7.4	---	---	---	---	770	---	6.0
		SB-17-25	03-05-92	25	0.8	3.9	---	---	---	---	78.4	---	7.0
		SB-17-30	03-05-92	30	11.0	3.8	---	---	---	---	98.6	---	6.7

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*Total Butanol = Summation of N-butanol, tertiary butanol and isobutanol
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TABLE 2

CASPIAN - KEARNEY MESA
COMPOSITE SOIL SAMPLE ANALYTICAL RESULTS

TANK IDENTIFIER	COMPOSITE SOIL SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE DEPTH (feet)	ALUMINUM (mg/kg)	TITANIUM (mg/kg)
TANK 14	CSB-10-16-24	02/14/92	16-24	4,150	---
	CSB-11-0-16	02/14/92	0-16	19,800	---
	CSB-11-16-28	02/14/92	16-28	10,300	---
	CSB-12-15-25	02/14/92	15-25	4,180	---
	CSB-12-25-35	02/14/92	25-35	5,280	---
TANK 15	CSB-1-20-35	02/14/92	20-35	7,680	---
	CSB-1-65-75	02/14/92	65-75	4,070	---
	CSB-1-80	02/14/92	80	5,150	---
	CSB-6-0-10	02/14/92	0-10	15,700	---
	CSB-8-0-20	02/14/92	0-20	16,500	---
	CSB-8-20-25	02/14/92	20-25	9,980	---
	CSB-9-0-15	02/14/92	0-15	15,600	---

mg/kg = Milligrams per kilogram

TABLE 2 (continued)
CASPIAN - KEARNEY MESA
COMPOSITE SOIL SAMPLE ANALYTICAL RESULTS
Page 2

TANK IDENTIFIER	COMPOSITE SOIL SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE DEPTH (feet)	ALUMINUM (mg/kg)	TITANIUM (mg/kg)
TANK 15 (cont)	CSB-9-15-28	02/14/92	15-28	6,320	---
	CSB-9-28-35	02/14/92	28-35	4,680	---
TANK 81	CSB-13-0-19	02/14/92	0-19	---	2,980
	CSB-7-0-15	02/14/92	0-15	---	1,940

mg/kg = Milligrams per kilogram

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-1

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Dark brown (7.5 YR 3/2), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, grey to brown, subrounded to 3 inches, mica present.
9.5-11.0	SILTY SAND	SM	Dark brown (7.5 YR 3/4), slightly moist, loose to slightly dense, fine to medium grained; silt, slightly cohesive, nonplastic; mica present.
14.5-16.0	SILTY SAND WITH COBBLES	SM	Dark olive grey (5 Y 3/2) to black (5 YR 2.5/1), slightly moist, loose to slightly dense, fine to medium grained; silt, cohesive, nonplastic; cobbles grey to brown, subrounded.
19.5-21.0	COBBLE COMGLOME-RATE	GM	Grey to brown cobble conglomerate. Subrounded cobbles to 3 inches. Matrix: silty sand, slightly moist, loose to slightly dense, fine to medium grained.
29.5-31.0	SAND	SP	White (5 Y 8/1), dry, loose, fine to medium grained, subangular to subrounded, predominantly quartz.
34.5-65.0	SILTY SAND samples?	SM	White (5 Y 8/1) to light grey (10 YR 7/2), slightly moist, loose to slightly dense, fine to medium grained, predominantly quartz; silt, cohesive, nonplastic.
			59.5-61.0 Soil was saturated

* Unified Soil Classification System
ASTM D-2487

TABLE (continued)
LITHOLOGIC LOG FOR

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
69.5-76.0	SILTY SAND	SM	Light grey (10 YR 7/2), slightly moist, moderately dense, fine to medium grained, subangular to subrounded, silt, slightly cohesive, nonplastic; mica present.
79.5-81.0	SILTY SAND	SM	Brown (7.5 YR 5/2), slightly moist, moderately dense, fine grained; silt, slightly cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 81.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-2

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic, cobbles, brown, subrounded to rounded to 3 inches.
5.0-8.0	SILTY SAND	SM	Reddish brown (2.5 YR 4/4), loose to slightly dense, fine to medium grained, subangular to subrounded, silt, slightly cohesive, nonplastic.
8.0-10.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, brown, rounded to 3 inches.
10.0-18.0	SAND	SP	Strong brown (7.5 YR 4/6), dry, loose, fine grained; mica present.
18.0-35.0	COBBLE CONGLOMER-ATE	GM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, slightly dense, fine to medium grained; slightly cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 35.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-3

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slighlty dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, grey to brown, subrounded to rounded to 3 inches.
5.0-10.5	SILTY SAND	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic.
10.5-11.0	SAND	SP	Srong brown (7.5 YR 4/6), slightly moist, loose, fine grained; mica present.
11.0-15.5	SILTY SAND	SM	Strong brown (7.5 YR 4/6), slightly moist, slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.
15.5-16.0	COBBLE CONGLOME-ATE	GM	Light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 3 inches. Matrix: silty sand, slightly moist, loose to slightly dense, fine to medium grained; silt, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 16.0

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-4

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-10.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to medium grained; subangular to subrounded; silt, cohesive, nonplastic; cobbles, light brown to brown, subrounded to rounded to 3 inches.
10.0-11.0	SAND	SP	Strong brown (7.5 YR 4/6), slightly moist, loose, fine grained, mica present.
11.0-15.5	SILTY SAND	SM	Dark brown (7.5 YR 5/4), slightly moist, slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.
15.5-19.5	COBBLE CONGLOMER-ATE	GM	Light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, fine to medium grained, cohesive, nonplastic.
19.5-20.5	SILTY SAND WITH GRAVEL	SM	Pinkish grey (7.5 YR 6/2), slightly moist, slightly dense, fine to coarse grained; subangular to subrounded; silt, cohesive, nonplastic; gravel, fine to coarse, subangular.
20.5-24.0	COBBLE CONGLOMER-ATE	GM	Light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 3 inches. Matrix: silty sand, slightly moist, fine to medium grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 24.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-5

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-6.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, grey, light brown to brown, rounded to 4 inches.
6.0-11.0	SILTY SAND	SM	Olive grey (5 Y 4/2), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic.
11.0-16.0	SILTY SAND	SM	Strong brown (7.5 YR 4/6), slightly moist, moderately dense, fine grained; silt, cohesive, nonplastic.
16.0-31.0	COBBLE CONGLOMER-ATE	GM	Grey, lighrt brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, fine to coarse grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 31.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-6

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, grey to brown, subrounded to rounded.
5.0-11.0	SILTY SAND	SM	Brown (7.5 YR 5/4) to grayish brown (10 YR 5/2), slightly moist, slightly to moderately dense, fine to coarse grained, subangular to subrounded; silt, cohesive, slightly plastic.

TOTAL DEPTH OF BOREHOLE: 11.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-7

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-1.0	CONCRETE		
1.0-6.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, slightly dense, fine to coarse grained, subangular to subrounded, predominantly quartz; silt, cohesive, nonplastic.
6.0-10.5	SILTY SAND	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose to slightly dense, fine to coarse grained, subangular to subrounded; silt, slightly cohesive, nonplastic.
10.5-11.0	SAND	SP	Dark yellowish brown (10 YR 4/4), slightly moist, loose, fine grained, mica present.
11.0-15.0	SILTY SAND WITH COBBLES	SM	Light grey (10 YR 7/2), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, grey to brown, subrounded to rounded.

TOTAL DEPTH OF BOREHOLE: 15.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-8

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-9.5	SILTY SAND WITH COBBLES	SM	Yellowish red (5 YR 4/6), slightly moist, loose to slightly dense, fine to coarse grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, light brown to brown, subrounded to rounded.
9.5-16.0	SILTY SAND	SM	Strong brown (7.5 YR 5/6) to olive (5 Y5/3), slightly moist, slightly to moderately dense, fine grained; silt, slightly cohesive, nonplastic.
16.0-25.0	COBBLE CONGLOMER-ATE	SM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, fine to medium grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 25.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-9

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Red (2.5 YR 4/6), slightly moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, light brown to brown, subrounded to rounded.
5.0-11.0	SILTY SAND	SM	Strong brown (7.5 YR 5/6), slightly moist, slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.
11.0-16.0	SILTY SAND	SM	Olive (5 Y 4/3), slightly moist, slightly dense, fine grained; silt, slightly cohesive, nonplastic; mica present.
16.0-27.0	COBBLE CONGLOMER-ATE	GM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, fine to medium grained, cohesive, nonplastic.
27.0- 36.0	SILTY SAND TRACE COBBLES	SM	Grey (7.5 YR N6/), slightly moist, moderately dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 36.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-11

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-5.0	SILTY SAND WITH COBBLES	SM	Yellowish red (5 YR 4/6), slightly moist, slighlty dense, fine to coarse grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, light brown to brown, subrounded to rounded.
5.0-10.0	SILTY SAND WITH COBBLES	SM	Strong brown (7.5 YR 4/6), slighlty moist, moderately dense, fine to medium sand, subangular to subrounded; slit, slighlty cohesive, nonplastic; cobbles, light brown to brown, subrounded to rounded.
10.0-16.0	SILTY SAND	SM	Strong brown (7.5 YR 4/6), slighlty moist, slightly dense, fine grained; silt, moderately cohesive, nonplastic; mica present
16.0-27.0	COBBLE CONGLOMER-ATE	SM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slighlty moist, fine to coarse grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 27.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-10

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-10.0	SILTY SAND WITH COBBLES	SM	Yellowish red (5 YR 4/6), slightly moist, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, grey to brown, subrounded to rounded.
10.0-16.0	SILTY SAND	SM	Olive (5 Y 4/4), slightly moist, slightly dense, fine grianed; silt, moderately cohesive, nonplastic.
16.0-20.0	COBBLE CONGLOMER-ATE	GM	Light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 3 inches. Matrix: silty sand, slightly moist, fine to coarse grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 20.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-12

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-10.0	SILTY SAND WITH COBBLES	SM	Yellowish red (5 YR 4/6), slightly moist, slightly dense, fine to coarse grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, grey, light brown to brown, subrounded to rounded to 3 inches.
10.0-16.0	SILTY SAND	SM	Strong brown (7.5 YR 5/6), slighlty moist, slightly dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.
16.0-30.0	COBBLE CONGLOMER-ATE	SM	Light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 3 inches. Matrix: silty sand, slightly moist, fine to coarse grained, cohesive, slightly plastic.

TOTAL DEPTH OF BOREHOLE: 30.0 Feet

* Unified Soil Classification System
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TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-13

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-1.0	CONCRETE		
1.0-6.0	SILTY SAND WITH COBBLES	SM	Red (2.5 YR 4/8), dry, loose, fine to coarse grained, subangular to subrounded, predominantly quartz; silt, slightly cohesive, nonplastic; cobbles, subrounded to rounded to 5 inches.
6.0-8.0	SAND	SP	Strong brown (7.5 YR 4/6), slightly moist, loose, fine grained; mica present.
8.0-13.0	SILTY SAND	SM	Brown (10 YR 4/3), slightly moist, slightly dense, fine to medium grained, subangular to subrounded; silt, moderately cohesive, nonplastic.
13.0-19.0	COBBLE CONGLOMER-ATE	GM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 4 inches. Matrix: silty sand, slightly moist, fine to medium grained, cohesive, nonplastic.

TOTAL DEPTH OF BOREHOLE: 19.0 Feet

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-14

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.5-6.0	SILTY SAND WITH COBBLES	SM	Red (2.5 YR 4/8), slighlty moist, loose, fine to coarse, subangular to subrounded, predominantly quartz; silt, slighlty cohesive, nonplastic; cobbles, varicolored to 3 inches.

TOTAL DEPTH OF BOREHOLE: 6.0 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-15

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-0.5	CONCRETE		
0.0-10.0	SILTY SAND WITH COBBLES	SM	Red (2.5 YR 4/8), slighlty moist, loose to slightly dense, fine to medium grained, subangular to subrounded; silt, moderately cohesive, nonplastic; cobbles, varicolored to 2-inches.
10.0-15.0	SILTY SAND	SM	Strong brown (7.5 YR 4/6), slightly moist, slightly to moderately dense, fine to medium grained, subangular to subrounded; silt, cohesive, nonplastic.
15.0-35.0	COBBLE CONGLOME-RATE	GM	Grey, light brown to brown cobble conglomerate. Subrounded to rounded cobbles to 3.5 inches. Matrix: silty sand, slightly moist, moderately dense, fine to medium grained.
35.0-37.0	SANDY SILT	ML	White (7.5 YR N8) to light grey (7.5 YR N7), slightly moist, firm, cohesive, nonplastic; sand, very fine grained.

TOTAL DEPTH OF BOREHOLE: 37 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-16

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-1.0	CONCRETE		
1.0-5.0	SAND WITH COBBLES AND BOULDERS	SM	Red (2.5 YR 4/8), slighlty moist, loose, fine to coarse grained, subangular to subrounded; cobbles, varicolored to 4 inches; boulders, varicolored to 12 inches.
5.0-13.5	SILTY SAND WITH COBBLES	SM	Strong brown (7.5 YR 4/6), slightly moist, loose to slightly dense, very fine to coarse grained, subangular to subrounded; silt, cohesive, nonplastic; cobbles, varicolored to 2 inches.
13.5-28.0	SILTY SAND WITH COBBLES	SM	Dark grayish brown (10 YR 4/2), slightly moist, loose to slightly dense, very fine to fine grained; silt, cohesive, nonplastic; cobbles, varicolored to 2 inches.
28.0-30.0	SANDY SILT	ML	Pale olive (5 Y 6/3), slightly moist, hard, noncohesive, nonplastic; sand, very fine grained.

TOTAL DEPTH OF BOREHOLE: 30 Feet

* Unified Soil Classification System
ASTM D-2487

TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-17

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-1.0	CONCRETE		
1.0-7.0	SAND WITH COBBLES	SM	Red (2.5 YR 4/8), slightly moist, loose, fine to medium grained, subangular to subrounded; cobbles, varicolored to 3 inches.
7.0-13.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose, fine to coarse, subangular to subrounded; silt, cohesive, nonplastic; cobbles, varicolored to 3 inches.
13.0-17.0	SILTY SAND WITH COBBLES	SM	Brown (7.5 YR 4/6), slightly moist, loose, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, varicolored to 3 inches.
17.0-30.0	COBBLE CONGLOME-RATE	GM	Varicolored cobble conglomerate. Subrounded to rounded cobbles to 3.5 inches. Matrix: silty sand, slightly moist, slightly dense; sand, fine to coarse.
			TOTAL DEPTH OF

* Unified Soil Classification System
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TABLE 3

LITHOLOGIC LOG FOR SOIL BORING SB-17

DEPTH INTERVAL (feet below land surface)	SOIL TYPE	GROUP SYMBOL*	DESCRIPTION OF MATERIAL
0.0-1.0	CONCRETE		
1.0-7.0	SAND WITH COBBLES	SM	Red (2.5 YR 4/8), slightly moist, loose, fine to medium grained, subangular to subrounded; cobbles, varicolored to 3 inches.
7.0-13.0	SILTY SAND WITH COBBLES	SM	Reddish brown (2.5 YR 4/4), slightly moist, loose, fine to coarse, subangular to subrounded; silt, cohesive, nonplastic; cobbles, varicolored to 3 inches.
13.0-17.0	SILTY SAND WITH COBBLES	SM	Brown (7.5 YR 4/6), slightly moist, loose, fine to medium grained, subangular to subrounded; silt, slightly cohesive, nonplastic; cobbles, varicolored to 3 inches.
17.0-30.0	COBBLE CONGLOME-RATE	GM	Varicolored cobble conglomerate. Subrounded to rounded cobbles to 3.5 inches. Matrix: silty sand, slightly moist, slightly dense; sand, fine to coarse.
			TOTAL DEPTH OF

* Unified Soil Classification System
ASTM D-2487

ATTACHMENT TO PART III

ATTACHMENT TO PART III

A. Total number of Below-grade Processing Structures to be closed:

- Four below-grade processing structures (BGPS) will be closed by Caspian, Inc. ("Caspian"), the most recent operator of these structures, without waiving Caspian's long-standing belief that these structures are not appropriately regulated as "underground storage tanks" as expressed in its letters to San Diego County Department of Health Services (CDOHS) dated May 1, 1986 and July 14, 1987.

B. Description of BGPS to be closed:

B.1 Structure No. : Maskant Dip Structure

- Capacity: Approximately 15,200 gallons
- Date Installed: Approximately November 1979
- Structure Composition: 0.375-inch thick steel with a concrete containment pad below the structure and possibly concrete containment encasing the sides.
- Structure Presently in Use?: This structure is presently empty. Caspian's water-based maskant dip operations are presently conducted in an above-ground container. This below grade structure has been maintained and presently remains available for standby use in the event that the above-ground container is taken out of operation temporarily for maintenance, inspection or replacement. This structure has not been used for processing operations since it was emptied.
- Materials Used in Process Structure: Kraton (rubber), talc, tetrachloroethylene, 1,1,1-trichlorethane, and butyl alcohol.
- Other information Not Specifically Required in Part III:

  Dimensions: Approximately 10-foot diameter with 20-foot depth. Two shelves or pans extend from opposite sides of the central cylinder, each is approximately 10 feet wide, 3.5 feet long and 5 feet deep (Figure 2).

B.2 Structure No. 14

- Capacity: Approximately 70,000 gallons (without freeboard). Usable capacity, approximately 60,000 gallons.
- Date Installed: Unknown. Believed to have been installed by the National Aeronautics and Space Administration

("NASA") before 1962, and operated by tenants preceding Caspian, including NASA, Teledyne Ryan, Strazza Industries, and Plessey prior to the lease of the property and operation of this structure by Caspian.

- Structure Composition: Between 1.25-inch and 1.5-inch thick steel, probably encased in 3.5 to 4 feet of concrete.

- Structure Presently in Use?: The structure is presently empty. Caspian's processing operations involving chemical milling of aluminum are presently conducted in above-ground containers. This below grade structure has been maintained and presently remains available for standby use in the event that the above-ground container is taken out of operation temporarily for maintenance, inspection or replacement. The BGPS has not been used for processing operations since it was emptied.

- Structure No. 14 has been covered and sealed to prevent incidental rinsewater and/or rainwater from presently entering the structure.

- Materials Used in Process Structure:

		Composition Estimate
Caustic soda (Sodium Hydroxide)	-	10% - 15%
Sodium Aluminate	-	10% - 15%
Sodium Sulfide	-	2% - 3%
Water	-	Balance

- Other information Not Specifically Required in Part III:

  Dimensions: When the BGPS was used for processing, it was approximately 20 feet deep by 25 feet in diameter with 4 feet above ground. The four feet above ground has been cut off and removed. Approximately sixteen feet of the BGPS remains below grade.

  Prior Uses: Believed to have been used for explosion forming parts.

B.3 Structure No. 15

- Capacity: A total of approximately 44,500 gallons with approximately 13,500 gallons in the rectangular portion of this structure used in processing operations since approximately 1970 and approximately 31,000 gallons in the cylindrical portion at one end of this structure. The cylindrical portion was closed and sealed in approximately 1970.

- Date Installed: The rectangular portion was installed in approximately early 1968. The cylindrical appendage was installed in approximately late 1968 or early 1969.

- Structure Composition: The rectangular portion is composed of 0.375-inch thick steel. The cylindrical appendage consists of 0.5-inch thick steel above a concrete containment pad and is possibly encased in concrete. This appendage was formerly capped with 0.5-inch thick steel plate.

- Structure Presently Used?: The structure is presently empty. Caspian's processing operations involving chemical milling of aluminum are presently conducted in above-ground containers. This below grade structure has been maintained and presently remains available for standby use in the event that the above-ground container is taken out of operation temporarily for maintenance, inspection or replacement. This structure has not been used for processing operations since it was emptied. Structure No. 15 has until recently contained two pumps for the removal of incidental rinsewater and rainwater collected in this structure and the return of this water to the process solutions. Structure No. 15 presently contains one pump for removal of collected water.

- Materials Used in Process Structure:

		Composition Estimate
Caustic soda (Sodium Hydroxide)	-	10% - 15%
Sodium Aluminate	-	10% - 15%
Sodium Sulfide	-	2% - 3%
Triethanolamine	-	2%
Water	-	Balance

- Other Information Not Specifically Required in Part III:

  Dimensions: Rectangular portion is approximately 30 feet by 12 feet and 4-5 feet deep. Cylindrical appendage is approximately 9 feet in diameter and 65 feet deep.

B.4 Structure No. 81

- Capacity: Approximately 5,900 gallons (without freeboard). Usable capacity, approximately 5,000 gallons.

- Date Installed: Believed to have been installed by NASA before 1962 and operated by tenants preceding Caspian, including NASA, Teledyne-Ryan, Strazza Industries, and Plessey.

- Structure Composition: Approximately 0.25-inch thick fiberglass primary wall with a gap of approximately 4 inches surrounded by an approximately 1.25- to 1.5-inch thick steel secondary vessel lined with approximately 0.25-inch thick fiberglass , and possibly encased in concrete.

- Structure Presently In Use?: This structure is presently empty although incidental rinsewater and rainwater is collected in this structure occasionally. Caspian's processing operations involving chemical milling or titanium are presently conducted in an above-ground container. This below grade structure has been maintained and presently remains available for standby use in the event that the above-ground container is taken out of operation temporarily for maintenance, inspection or replacement. This structure has not been used for processing operations since it was emptied. On occasion, incidental rinsewater and rainwater are collected and pumped out of Structure No. 81 and returned to the process solutions.

- Materials Used in Process Structure:

		Composition Estimate
Hydrofluoric acid	-	2% - 7%
Nitric acid	-	0.1% - 1%
Dissolved titanium	-	20-60 grams/liter
Water	-	Balance

- Other Information Not Specifically Required in Part III:

  Dimensions: Approximately 10 feet in diameter and 10 feet deep.

  Prior Uses: Believed to have been used for explosion forming of parts.

C. HAS THE BGPS SYSTEM EVER FAILED OR LEAKED?

It is unknown whether the maskant dip structure, Structure No. 14 or Structure No. 15 ever failed or leaked.

In approximately 1985 a small crack in the fiberglass primary containment was observed in the side wall of the south end of the Structure No. 81 during routine removal and replacement of process solutions. In the investigation of this crack, a section of the fiberglass was removed and a hole was discovered which extended through the steel structure into or through a separate outer concrete containment which may exist around this structure. The hole was repaired in the fiberglass /steel containment structure and a new fiberglass primary containment was installed

within the original fiberglass/steel containment structure. Thereafter, Caspian monitored and inspected the space between the two containment structures and identified no leakage of process solutions from either the primary or secondary containment.

D. REASON FOR BGPSs TO BE CLOSED:

Caspian is prepared to close the four below grade processing structures as an offer to compromise disputed claims asserted by CDOHS, without waiving or prejudicing its constantly held and expressed belief that the underground storage tank laws and regulations, including closure procedures, do not apply to these processing structures. To accomplish this goal, Caspian is willing to forego standby use of the processing structures. Maintenance and inspection of the above-ground containers have proved satisfactory without any critical future need for the below grade structures.

E. PREVIOUS OWNERS AND OPERATORS OF BGPS:

Unknown to present	Harriett Booth or the estate of Harry Booth, is the property owner and the owner of the below grade processing structures.
Prior to approximately 1962	NASA is believed to have installed and operated Structure Nos. 14 and 81.
Early 1960's	Teledyne-Ryan operated Structure Nos. 14 and 81.
Early 1960's to September 1965	Strazza Industries operated Structure Nos. 14 and 81.
September 1965 to 1969	Caspian, Inc. (Formerly known as Chemical Energy of California, Inc.)
1969 - 1970	Plessey Inc.
1970 to present	Caspian, Inc. (Formerly known as Chemical Energy of California, Inc.)

F. ALTERNATE PLAN FOR CLOSURE IN-PLACE

F.1 SITE DESCRIPTION

o Site Setting

The Caspian Inc. facility is located at 4951 Ruffin Road in San Diego, California (site) (Figure 1). The site is bordered on the north by Greencraig Lane, on the west by Ruffin Road, on the south by Balboa Avenue and on the east by Viewridge Avenue. The ground surface at the site lies at an approximate elevation of 430 feet above mean sea level (MSL) and slopes west-southwest into Murphy Canyon based on an interpretation of a United States Geological Survey (USGS) topographic map (USGS, 1975).

There are four below grade processing structures (BGPS) which are proposed to be closed in-place at the site (Figure 2). At this time, none of the BGPSs are in use. The site is an industrial facility which is currently in operation. The BGPSs are in close proximity to other structures such as buildings, gantries, overhead crane supports, and above ground processing vessels. The BGPSs are 0.375 inches to 1.5 inches thick steel surrounded and underlain by what is suspected to be as much as four feet of concrete. It is our understanding that the BGPSs have no associated underground piping or equipment.

o Geologic Setting

The site near surface geology is interpreted to consist of the Lindavista Formation. The Lindavista Formation is composed predominately of interbedded sandstone and conglomerate. Ferruginous cement, mainly hematite, and cobbles give the Lindavista Formation its resistant characteristics (Kennedy, et al, 1975).

o Hydrogeologic Setting

Based upon a review of the Regional Water Quality Control Board (RWQCB) Comprehensive Water Quality Control Plan Report on the San Diego Basin, the site is located within the Lower San Diego Hydrologic Subunit and is considered to have the following existing beneficial uses: municipal, agricultural, and industrial; and the following potential beneficial uses: industrial process supply and groundwater recharge (RWQCB, 1978).

The depth to groundwater, the groundwater flow direction, and the groundwater gradient are not known at the site. However, according to the RWQCB, regional groundwater is generally very deep in excess of approximately 60 to 80 feet below ground surface (BGS) (Briest, 1990). Applied Geosciences Inc. reports that a boring recently drilled to approximately 105 feet BGS, located on the mesa within a mile of the site, did not have groundwater present.

F.2 APPROACH

The approach which has been developed by Applied Geosciences Inc. to close the BGPSs includes the following:

- A Health and Safety Plan will be prepared for this site and will be an integral part of this project. It will be based on the understanding of the potentially hazardous materials that may be present at the site and safety concerns involved with personnel working at the site. It will be designed to minimize the likelihood that exposure of personnel and subcontractors to potentially hazardous materials and unsafe conditions will occur during field work.

- The proposed closure plan for the Maskant BGPS and BGPSs #14, #15 and #81 is closure in-place. Closure in-place has been assessed to be the appropriate closure method because of prohibitive costs and technical difficulties associated with BGPS removal. Excavation and removal of the BGPSs was explored and deemed unfeasible due to the size and depth of the BGPSs and their close proximity to other structures (Figure 3). Excavation would entail removal of most surrounding structures and the weight of steel and concrete is prohibitive to lifting the BGPSs out of the ground with a crane.

  Cutting the BGPSs and removing them in sections was also explored and presents several problems. Shoring of the BGPSs would be very difficult and extremely expensive. Cutting would also be very difficult if at all possible, due to the concrete poured around the steel acting as a heat sink. Cutting the steel and removing the concrete entails working in shored and confined spaces and presents an additional health and safety risk which could be avoided by closure in-place.

- In order to assess the potential presence of chemical constituents in soil beneath the BGPS, it is proposed that soil borings be drilled and soil samples be collected in the approximate locations shown in Figures 3 through 7. Angled soil borings are proposed to be utilized to collect soil samples from beneath BGPSs #14, #81 and a portion of #15 (Figures 5, 6 and 7).

  An angled boring is not proposed for the west side of BGPS #15 because of the depth of the bottom of the structure (approximately 65 feet). However, a vertical boring is proposed to be drilled on the west side of BGPS #15 to collect soil samples from approximately 65 to 80 feet BGS (Figure 6). The boring will be placed as close as possible to the side of the BGPS.

  In addition, angled borings are not proposed for the Maskant BGPS. Due to height limitations inside of the building where the Maskant BGPS is located, a limited access drill rig must be used. Small drill rigs which may be capable of

angle boring inside the building do not have sufficient torque to penetrate the resistant Lindavista Formation. Therefore, a larger drill rig capable of drilling with its mast down is necessary. The larger drill rigs can not drill angle borings with the mast down. Therefore, four vertical borings are proposed for the Maskant BGPS (Figure 4). The borings will be placed as closely as possible to the sides of the BGPS.

- For BGPS closure, it is proposed to cut off any above grade portions of the BGPSs, backfill the BGPSs with a 2-sack sand/cement slurry and/or compacted decomposed granite, and finish the surface with concrete. Sections F.3, F.4, F.5 and F.6 of this plan detail the specific proposed backfill.

- Field Procedures for drilling, soil sampling and backfilling of the BGPS are included in Appendix B of this plan.

F.3 MASKANT BGPS

- Soil Borings and Sample Collection

Four vertical borings are proposed to be drilled on the north, south, east and west sides of the Maskant BGPS as illustrated in Figure 3. The borings will be drilled to approximately 35 feet BGS. Three soil samples per boring will be collected and analyzed according to the Analytical Laboratory Analysis section below. Figure 4 shows the approximate locations of soil samples to be collected and analyzed.

- Analytical Laboratory Analysis

Twelve soil samples are proposed to be submitted for laboratory analysis. The twelve soil samples are proposed to be analyzed for halogenated volatile organic compounds in general accordance with EPA Method No. 8010 to assess the presence of PCE and TCA in the soil beneath the BGPS. In addition, the twelve soil samples are proposed to be analyzed for non-halogenated volatile organic compounds in general accordance with EPA Method No. 8015 to assess the presence of butanol in soil beneath the BGPS.

- BGPS Backfilling

From approximately 12 to 20 feet BGS: 2-sack cement slurry, self compacting to approximately 95 percent compaction.

From approximately 0.5 to 12 feet BGS: decomposed granite compacted to approximately 90 percent compaction.

From approximately 0 to 0.5 feet BGS: finish surface with minimum 5-sack cement mixture.

F.4 BGPS #14

o Soil Borings and Sample Collection

Three angle soil borings are proposed to be drilled in the approximate locations shown in Figure 3. The angle borings are proposed to be drilled to approximately 35 to 40 feet BGS. Four soil samples per boring are proposed to be collected and analyzed according to the Analytical Laboratory Analysis section below. Figure 5 shows the approximate locations of soil samples proposed to be collected and analyzed for a typical angle boring for BGPS #14.

o Analytical Laboratory Analysis

Twelve soil samples are proposed to be submitted for laboratory analysis. The 12 soil samples are proposed to be analyzed for pH in general accordance with EPA No. 9045 to assess the presence of sodium hydroxide (a strong base) and sulfide in general accordance with EPA Method No. 376.2 to assess the presence of sodium sulfide.

o BGPS Backfilling

From approximately 12 to 16 feet BGS: 2-sack cement slurry, self compacting to approximately 95 percent compaction.

From approximately 0.5 to 12 feet BGS: decomposed granite compacted to approximately 90 percent compaction.

From approximately 0 to 0.5 feet BGS: finish surface with minimum 5-sack cement mixture.

F.5 BGPS #15

o Soil Borings and Sample Collection

Three soil borings are proposed to be drilled in the approximate locations shown in Figure 3. Two of the soil borings are proposed to be angle borings to approximately 30 to 35 feet BGS and one is proposed to be a vertical boring to approximately 80 feet BGS. Three soil samples per angle boring and four soil samples from the vertical boring are proposed to be analyzed according to the Analytical Laboratory Analysis section below. Figure 6 shows the approximate locations of proposed soil samples to be collected and analyzed for the vertical boring and for a typical angle boring for BGPS #15.

o Analytical Laboratory Analysis

Ten soil samples are proposed to be submitted to the laboratory for chemical analysis. The ten soil samples are proposed to be analyzed for triethanolamine using a gas chromatograph procedure. There is no established EPA Method for triethanolamine. In addition, the ten soil samples are proposed to be analyzed for pH

in general accordance with EPA Method No. 9045 to assess the presence of sodium hydroxide (a strong base) and for sulfide in general accordance with EPA Method No. 376.2 to assess the presence of sodium sulfide.

o BGPS Backfilling

From approximately 5 to 65 feet BGS: 2-sack cement slurry, self compacting to approximately 95 percent compaction.

From approximately 0.5 to 5 feet BGS: decomposed granite compacted to approximately 90 percent compaction.

From approximately 0 to 0.5 feet BGS: finish surface with minimum 5-sack cement mixture.

F.6 BGPS #81

o Soil Boring and Sample Collection

Two angle soil borings are proposed to be drilled in the approximate locations shown in Figure 3. The angle borings are proposed to be drilled to approximately 25 to 35 feet BGS. Four soil samples per boring will be collected and analyzed according to the Analytical Laboratory Analysis section below. Figure 7 shows the approximate locations of soil samples proposed to be collected and analyzed for a typical angle boring for BGPS #81.

o Analytical Laboratory Analysis

Eight soil samples are proposed to be submitted to the laboratory for chemical analysis. The eight soil samples are proposed to be analyzed for fluoride in general accordance with EPA No. 340.2 to access the presence of fluoride from the dissociation of hydrofluoric acid; for nitrate in general accordance with EPA Method No. 353.1 to access the presence of nitrate from the dissociation of nitric acid in soil; and for pH in general accordance with EPA Method No. 9045 to assess the presence of the strong acids, hydrofluoric acid and nitric acid.

o BGPS Backfilling

From approximately 0.5 to 10 feet BGS: decomposed granite compacted to approximately 85 percent compaction.

From approximately 0 to 0.5 feet BGS: finish surface with minimum 5-sack cement mixture.

F.7 REPORT

At the completion of sample analysis, a laboratory report will be submitted to the HMMD.

F.8 REFERENCES

Briest, George, 1990, Telephone conversation log between George Briest of the Regional Water Quality Control Board and Gary J. McCue of Applied Geosciences Inc., dated 3 August 1990.

Kennedy, Michael P., and Peterson, Gary L., Geology of the San Diego metropolitan area, California, Bulletin 200, California Division of Mines and Geology, Sacramento, California, 1975, p. 50 and plate 3B.

RWQCB (Regional Water Quality Control Board), 1978, Comprehensive water quality control plan report, 1978 amendments, San Diego basin (9), p13.

USGS (United States Geological Survey), 1975, Topographic map, La Mesa quadrangle, California-San Diego County, 7.5 minute series, USGS, Denver, Colorado.

F.9.0 FIELD PROCEDURES

The procedures that are to be used for collecting soil samples and and drilling are as follows:

F.9.1 Drilling and Sampling Procedures

- The borings will be advanced using an eight-inch hollow-stem auger;
- Drilling will be conducted by a State licensed drilling contractor.
- Soil samples will be collected at approximately five foot intervals using a split-barrel sampler;
- Soil cuttings from the borings will be stockpiled on-site on plastic sheeting and covered with plastic sheeting and/or placed in 55 gallon California Department of Transportation drums;
- Augers will be washed with a high pressure, hot water system prior to advancement into each boring.
- Soil samplers will be washed between sampling intervals in a soapy water wash, two tap water rinses, and a final distilled water rinse;
- Soil samples will be collected in stainless steel and/or brass sample tubes. The tubes will be covered with foil, capped, and secured with electrical tape. The soil samples will be retained on ice prior to delivery to the laboratory for analysis. The soil samples will be delivered to the laboratory within 24 hours of collection;
- The boring logs will be prepared under the supervision of a State-certified engineering geologist;

- The borings will be backfilled in general accordance with the boring permits;

- Chain-of-custody procedures, including the use of Chain-of-Custody forms, will be used to document sample handling and transport from collection to delivery to the laboratory for analysis; and

- Soil samples will be analyzed by a State-certified hazardous waste laboratory.

F.9.2 Backfilling Procedures

- The 2-sack cement/sand slurry will be prepared off-site by a concrete contractor and poured directly into the BGPS from the concrete contractors cement trucks.

- Decomposed granite (DG) or a similar suitable imported soil will be dumped into the BGPS with a backhoe in lifts ranging in thickness from approximately one to three feet, depending upon the compaction characteristics of the DG.

- The primary compaction equipment will be a wheel compactor attached to an extend-a-hoe. The wheel compactor is approximately 18 inches wide, has three rows of sheep foot compactors, and weighs approximately 1,200 pounds.

- When needed, a single man operated foot compactor will be used to compact DG in corners and sides of the BGPSs.

G. DISPOSAL SITE OF BGPSs

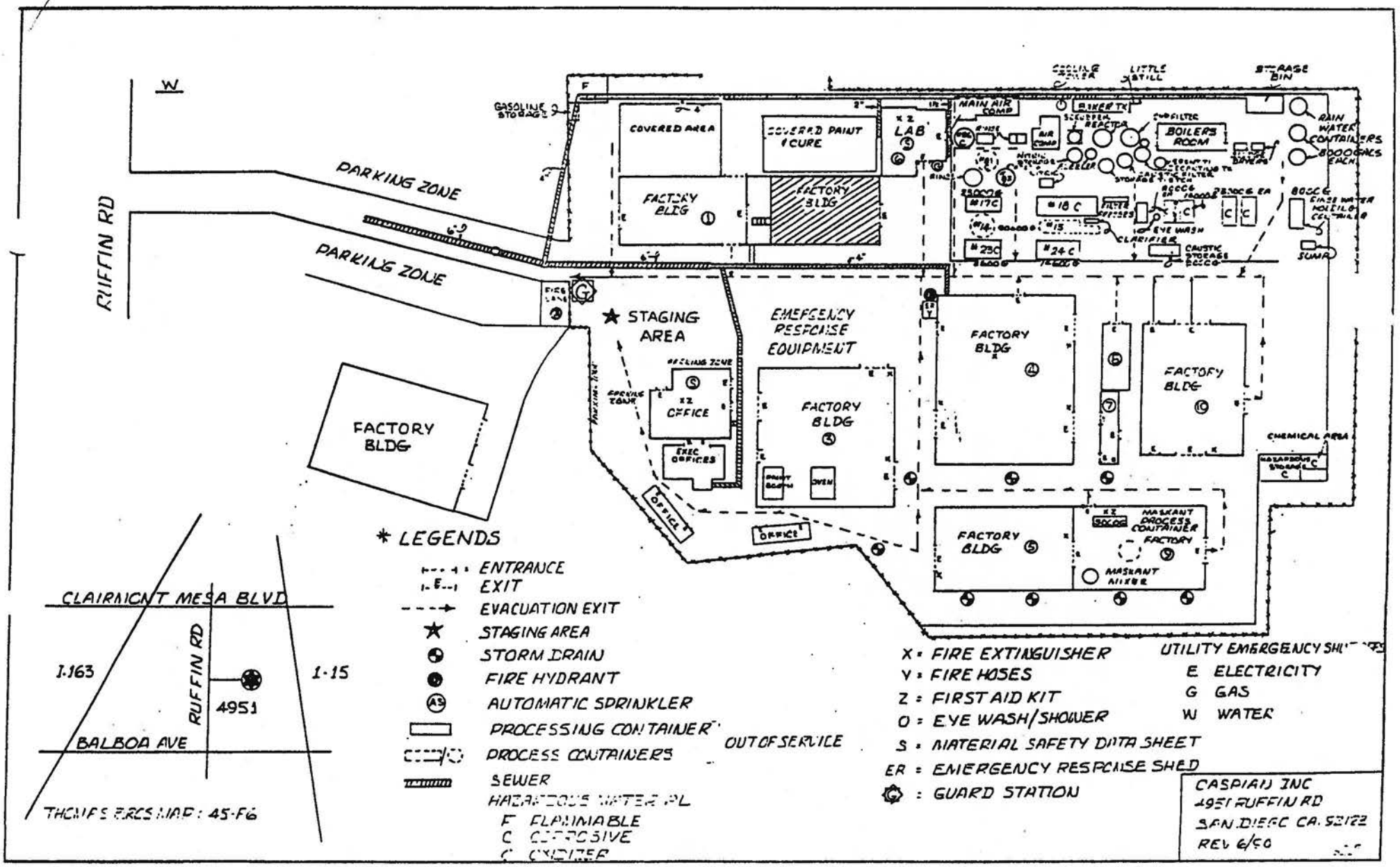
- BGPSs are proposed to be closed in place on site.

H. PLANS AND FIGURES

- See figures at end of this attachment.

I. REQUIRED INSPECTION - PERMIT TO CLOSE

- The BGPSs will be rinsed with clean water. The rinsate will then be used as processing make-up water.



Base map provided by Caspian Inc.

Figure 1

HARGIS + ASSOCIATES, INC.

2223 Avenida De La Playa, Suite 300
La Jolla, California 92037
(619) 454-0165
Telecopier (619) 454-5839

David R. Hargis, Ph.D., R.G.
Michael R. Long, R.G.
Terry M. Turner, R.G.
Roger A. Niemeyer, R.G.
Lanae J. Raymond
Peter T. Quinlan
Christopher G.A. Ross, R.G.
Thomas J. Ryan

May 18, 1992

Ms. Johanna F. Barry, R.E.H.S.
Hazardous Materials Specialist
COUNTY OF SAN DIEGO
Hazardous Materials Management Unit
1255 Imperial Avenue, Third Floor
San Diego, CA 92138

Re: Transmittal of Soil Sample Collection Procedures for Composite Samples and Quality Assurance/Quality Control Data for Most Recent Soil Samples

Dear Ms. Barry:

Pursuant to your telephone conversation with Gary Vargas on April 29, 1992, enclosed is a description of the field procedures used to collect composite soil samples for analysis of titanium and aluminum (Exhibit A) and laboratory data sheets and quality assurance/quality control data for the most recent soil samples collected (Exhibit B).

If you have any questions or require further assistance, please contact me.

Sincerely,

HARGIS + ASSOCIATES, INC.

Edward D. Modiano

Edward D. Modiano
Hydrogeologist

EDM:ama

Enclosure(s)

cc: Ms. Linda Collins, Caspian Inc.

barry02.322

Other Offices:
Tucson, AZ
Mesa, AZ
Manhattan Beach, CA
Burbank, CA

EXHIBIT A

FIELD PROCEDURES

1.0 INTRODUCTION

Hargis + Associates, Inc. (H+A) personnel collected 16 composite soil samples on February 14, 1992, from soil cuttings that are currently being stored in 55-gallon Department of Transportation (DOT) approved steel drums at the Caspian Inc. facility (Site). The soil cuttings were generated from the 13 soil borings that were drilled during November 1991 (H+A letter dated February 12, 1992, to Mr. Michael Vernetti).

2.0 COMPOSITE SOIL SAMPLE COLLECTION

Thirteen soil borings were initially drilled at the Site during November 1991. Drill cuttings generated from these soil borings were stored in 55-gallon drums. For every 10 to 19 feet of drill depth, a 55-gallon drum was filled. Each drum was labelled by soil boring location and specific depth interval. Sixteen 55-gallon drums were sampled and composited separately.

A composite soil sample was collected from each drum on February 14, 1992. Composite soil samples were collected from each drum that correlated with previously drilled soil borings near Tanks 14, 15, and 81 in accordance with revised permit no. H07938 and the H+A Letter to Mr. Michael Vernetti dated February 12, 1992. Soil was removed by hand augering to the bottom of each drum and composited in a 5-gallon bucket. The composite soil sample was then placed in a 9-ounce clear glass jar, appropriately labelled according to the sampled drum, and stored on ice. Composited soil samples from soil borings 10, 11, and 12 near Tank 14 and composited soil samples from soil borings 1, 6, 8, and 9 near Tank 15 were analyzed for aluminum using U.S. Environmental Protection Agency (EPA) Method 6010. Composited soil samples from soil borings 7 and 13 were analyzed for titanium using EPA Method 6010.

All soil sampling equipment was decontaminated prior to sampling each drum. Decontamination procedures included an Alconox soap wash, two tap water rinses, and a distilled water rinse. Composite soil samples were sent to Analytical Technologies, Inc. (ATI), San Diego, California. Proper chain-of-custody documentation accompanied the samples to the laboratory.

EXHIBIT B

SOIL SAMPLE ANALYTICAL DATA

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morenouse Drive San Diego, CA 92121 (619) 458-9741

ATI I.D.: 20305

April 08, 1992

HARGIS & ASSOCIATES, INC.
2223 AVENIDA DE LA PLAYA, SUITE 300
LA JOLLA, CA 92037

Project Name: CASPIAN-S.D.
Project # : 322

Attention: GARY VARGAS

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
March 05, 1992	11	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

SUSAN M. SNYDER
SENIOR PROJECT MANAGER

KENNETH WAHL
LABORATORY MANAGER

cc: KATHRYN PARKER
HARGIS & ASSOCIATES, INC
2223 AVENIDA DE LA PLAYA, SUITE 300
LA JOLLA, CA 92037

AnalyticalTechnologies,Inc.

SAMPLE CROSS REFERENCE

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

Report Date: April 08, 1992
ATI I.D. : 203059

ATI #	Client Description	Matrix	Date Collected
1	SB-14-6	SOIL	04-MAR-92
2	AC-15-10-14	SOIL	04-MAR-92
3	SB-15-30	SOIL	04-MAR-92
4	SB-15-37	SOIL	04-MAR-92
5	SB-16-14	SOIL	05-MAR-92
6	SB-16-20	SOIL	05-MAR-92
7	AC-16-25	SOIL	05-MAR-92
8	SB-16-30	SOIL	05-MAR-92
9	AC-17-20-23	SOIL	05-MAR-92
10	SB-17-25	SOIL	05-MAR-92
11	SB-17-30	SOIL	05-MAR-92

---TOTALS---

Matrix	# Samples
SOIL	11

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date o: this report. If an extended storage period is required, please contact our sample contro: department before the scheduled disposal date.

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20305

Analysis	Technique/Description
EPA 340.2 (FLUORIDE)	ELECTRODE
EPA 353.2 (NITRATE AS NITROGEN)	COLORIMETRIC
EPA 6010 (TITANIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 8010 (HALOGENATED VOLATILE ORGANICS)	GC/ELECTROLYTIC CONDUCTIVITY DETECTOR
EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)	GC/FLAME IONIZATION DETECTOR
EPA 9045 (pH)	ELECTRODE

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

Client : HARGIS & ASSOCIATES, INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20305

Sample #	Client ID	Matrix	Date Sampled	Date Received
5	SB-16-14	SOIL	05-MAR-92	05-MAR-9
6	SB-16-20	SOIL	05-MAR-92	05-MAR-9
7	AC-16-25	SOIL	05-MAR-92	05-MAR-9
8	SB-16-30	SOIL	05-MAR-92	05-MAR-9
9	AC-17-20-23	SOIL	05-MAR-92	05-MAR-9

Parameter	Units	5	6	7	8	9
FLUORIDE	MG/KG	61.0	40.0	48.0	1.2	50.0
NITRATE AS NITROGEN	MG/KG	3.1	3.7	5.0	5.5	7.4
pH	UNITS	5.1	5.7	5.7	7.5	6.0

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY RESULTS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20305

Sample #	Client ID	Matrix	Date Sampled	Date Received
10	SB-17-25	SOIL	05-MAR-92	05-MAR-9
11	SB-17-30	SOIL	05-MAR-92	05-MAR-9

Parameter	Units	10	11
FLUORIDE	MG/KG	0.8	11.0
NITRATE AS NITROGEN	MG/KG	3.9	3.8
pH	UNITS	7.0	6.7

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 20305

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
FLUORIDE	203059-11	MG/KG	11.0	11.0	0	16.0	5	100
NITRATE AS NITROGEN	203059-08	MG/KG	5.5	4.2	27	10.5	5.0	100
pH	203059-11	UNITS	6.7	6.6	2	N/A	N/A	N/A

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

BLANK SPIKE

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 2030

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
FLUORIDE	22952	MG/KG	<0.5	5.7	5.0	115
NITRATE AS NITROGEN	23171	MG/KG	<0.5	5.2	5.0	104

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20305

Sample #	Client ID	Matrix	Date Sampled	Date Received
5	SB-16-14	SOIL	05-MAR-92	05-MAR-9
6	SB-16-20	SOIL	05-MAR-92	05-MAR-9
7	AC-16-25	SOIL	05-MAR-92	05-MAR-9
8	SB-16-30	SOIL	05-MAR-92	05-MAR-9
9	AC-17-20-23	SOIL	05-MAR-92	05-MAR-9

Parameter	Units	5	6	7	8	9
TITANIUM	MG/KG	732	112	953	106	770

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 2030

Sample #	Client ID	Matrix	Date Sampled	Date Receive
10	SB-17-25	SOIL	05-MAR-92	05-MAR-
11	SB-17-30	SOIL	05-MAR-92	05-MAR-

Parameter	Units	10	11
TITANIUM	MG/KG	78.4	98.6

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

DUP/MS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 20305

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
TITANIUM	203108-02	MG/KG	83.2	81.8	2	117	50.2	67

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 20305

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
TITANIUM	23085	MG/KG	<0.5	46.5	50.0	93

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY RESULTS

Test : EPA 8010 (HALOGENATED VOLATILE ORGANICS)
Client : HARGIS & ASSOCIATES,INC. ATI I.D. : 203059
Project # : 322
Project Name: CASPIAN-S.D.

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	SB-14-6	SOIL	04-MAR-92	06-MAR-92	11-MAR-92	4.00
2	AC-15-10-14	SOIL	04-MAR-92	06-MAR-92	11-MAR-92	1.00
3	SB-15-30	SOIL	04-MAR-92	06-MAR-92	11-MAR-92	1.00

Parameter	Units	1	2	3
BROMODICHLOROMETHANE	MG/KG	<0.040	<0.010	<0.010
BROMOFORM	MG/KG	<0.20	<0.050	<0.050
BROMOMETHANE	MG/KG	<0.20	<0.050	<0.050
CARBON TETRACHLORIDE	MG/KG	<0.040	<0.010	<0.010
CHLOROBENZENE	MG/KG	<0.10	<0.025	<0.025
CHLOROETHANE	MG/KG	<0.20	<0.050	<0.050
CHLOROFORM	MG/KG	<0.040	<0.010	<0.010
CHLOROMETHANE	MG/KG	<0.040	<0.010	<0.010
DIBROMOCHLOROMETHANE	MG/KG	<0.040	<0.010	<0.010
1,2-DICHLOROBENZENE	MG/KG	<0.10	<0.025	<0.025
1,3-DICHLOROBENZENE	MG/KG	<0.10	<0.025	<0.025
1,4-DICHLOROBENZENE	MG/KG	<0.10	<0.025	<0.025
DICHLORODIFLUOROMETHANE	MG/KG	<0.20	<0.050	<0.050
1,1-DICHLOROETHANE	MG/KG	<0.040	<0.010	<0.010
1,2-DICHLOROETHANE	MG/KG	<0.040	<0.010	<0.010
1,1-DICHLOROETHENE	MG/KG	<0.040	<0.010	<0.010
CIS-1,2-DICHLOROETHENE	MG/KG	<0.040	<0.010	<0.010
TRANS-1,2-DICHLOROETHENE	MG/KG	<0.040	<0.010	<0.010
1,2-DICHLOROPROPANE	MG/KG	<0.040	<0.010	<0.010
CIS-1,3-DICHLOROPROPENE	MG/KG	<0.040	<0.010	<0.010
TRANS-1,3-DICHLOROPROPENE	MG/KG	<0.040	<0.010	<0.010
METHYLENE CHLORIDE	MG/KG	<0.40	<0.10	<0.10
1,1,2,2-TETRACHLOROETHANE	MG/KG	<0.040	<0.010	<0.010
TETRACHLOROETHENE	MG/KG	1.0	0.050	0.050
1,1,1-TRICHLOROETHANE	MG/KG	<0.040	<0.010	<0.010
1,1,2-TRICHLOROETHANE	MG/KG	<0.040	<0.010	<0.010
TRICHLOROETHENE	MG/KG	<0.040	<0.010	<0.010
TRICHLOROFLUOROMETHANE	MG/KG	<0.40	<0.10	<0.10
VINYL CHLORIDE	MG/KG	<0.040	<0.010	<0.010
SURROGATES				
BROMOFLUOROBENZENE (ELCD)	%	107	107	67*F
BROMOFLUOROBENZENE (PID)	%	99	99	70

*F RESULT OUTSIDE OF ATI'S QUALITY CONTROL LIMITS; RE-EXTRACT VERIFIED LOW BFB RECOVERY.

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY RESULTS

Test : EPA 8010 (HALOGENATED VOLATILE ORGANICS)
Client : HARGIS & ASSOCIATES,INC. ATI I.D. : 203059
Project # : 322
Project Name: CASPIAN-S.D.

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	SB-15-37	SOIL	04-MAR-92	06-MAR-92	11-MAR-92	4.00

Parameter	Units	4
BROMODICHLOROMETHANE	MG/KG	<0.040
BROMOFORM	MG/KG	<0.20
BROMOMETHANE	MG/KG	<0.20
CARBON TETRACHLORIDE	MG/KG	<0.040
CHLOROBENZENE	MG/KG	<0.10
CHLOROETHANE	MG/KG	<0.20
CHLOROFORM	MG/KG	<0.040
CHLOROMETHANE	MG/KG	<0.040
DIBROMOCHLOROMETHANE	MG/KG	<0.040
1,2-DICHLOROBENZENE	MG/KG	<0.10
1,3-DICHLOROBENZENE	MG/KG	<0.10
1,4-DICHLOROBENZENE	MG/KG	<0.10
DICHLORODIFLUOROMETHANE	MG/KG	<0.20
1,1-DICHLOROETHANE	MG/KG	<0.040
1,2-DICHLOROETHANE	MG/KG	<0.040
1,1-DICHLOROETHENE	MG/KG	<0.040
CIS-1,2-DICHLOROETHENE	MG/KG	<0.040
TRANS-1,2-DICHLOROETHENE	MG/KG	<0.040
1,2-DICHLOROPROPANE	MG/KG	<0.040
CIS-1,3-DICHLOROPROPENE	MG/KG	<0.040
TRANS-1,3-DICHLOROPROPENE	MG/KG	<0.040
METHYLENE CHLORIDE	MG/KG	<0.40
1,1,2,2-TETRACHLOROETHANE	MG/KG	<0.040
TETRACHLOROETHENE	MG/KG	2.5
1,1,1-TRICHLOROETHANE	MG/KG	<0.040
1,1,2-TRICHLOROETHANE	MG/KG	<0.040
TRICHLOROETHENE	MG/KG	<0.040
TRICHLOROFLUOROMETHANE	MG/KG	<0.40
VINYL CHLORIDE	MG/KG	<0.040
SURROGATES		
BROMOFLUOROBENZENE (ELCD)	%	74
BROMOFLUOROBENZENE (PID)	%	71

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : EPA 8010 (HALOGENATED VOLATILE ORGANICS)
Blank I.D. : 18345
Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 06-MAR-92
Date Analyzed : 11-MAR-92
Dil. Factor : 1.00

Parameters	Units	Results
BROMODICHLOROMETHANE	MG/KG	<0.010
BROMOFORM	MG/KG	<0.050
BROMOMETHANE	MG/KG	<0.050
CARBON TETRACHLORIDE	MG/KG	<0.010
CHLOROBENZENE	MG/KG	<0.025
CHLOROETHANE	MG/KG	<0.050
CHLOROFORM	MG/KG	<0.010
CHLOROMETHANE	MG/KG	<0.010
DIBROMOCHLOROMETHANE	MG/KG	<0.010
1,2-DICHLOROBENZENE	MG/KG	<0.025
1,3-DICHLOROBENZENE	MG/KG	<0.025
1,4-DICHLOROBENZENE	MG/KG	<0.025
DICHLORODIFLUOROMETHANE	MG/KG	<0.050
1,1-DICHLOROETHANE	MG/KG	<0.010
1,2-DICHLOROETHANE	MG/KG	<0.010
1,1-DICHLOROETHENE	MG/KG	<0.010
CIS-1,2-DICHLOROETHENE	MG/KG	<0.010
TRANS-1,2-DICHLOROETHENE	MG/KG	<0.010
1,2-DICHLOROPROPANE	MG/KG	<0.010
CIS-1,3-DICHLOROPROPENE	MG/KG	<0.010
TRANS-1,3-DICHLOROPROPENE	MG/KG	<0.010
METHYLENE CHLORIDE	MG/KG	<0.10
1,1,2,2-TETRACHLOROETHANE	MG/KG	<0.010
TETRACHLOROETHENE	MG/KG	<0.010
1,1,1-TRICHLOROETHANE	MG/KG	<0.010
1,1,2-TRICHLOROETHANE	MG/KG	<0.010
TRICHLOROETHENE	MG/KG	<0.010
TRICHLOROFLUOROMETHANE	MG/KG	<0.10
VINYL CHLORIDE	MG/KG	<0.010
SURROGATES		
BROMOFLUOROBENZENE (ELCD)	%	98
BROMOFLUOROBENZENE (PID)	%	93

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : EPA 8010 (HALOGENATED VOLATILE ORGANICS)
MSMSD # : 30502
Client : HARGIS & ASSOCIATES,INC.

Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 05-MAR-92
Date Analyzed : 05-MAR-92
Sample Matrix : SOIL
REF I.D. : REAGENT SOIL

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
CHLOROBENZENE	MG/KG	<0.025	0.20	0.20	100	0.22	110	10
CHLOROFORM	MG/KG	<0.010	0.20	0.22	110	0.23	115	4
1,1-DICHLOROETHENE	MG/KG	<0.010	0.20	0.17	85	0.17	85	0
TETRACHLOROETHENE	MG/KG	<0.010	0.20	0.22	110	0.23	115	4
TRICHLOROETHENE	MG/KG	<0.010	0.20	0.22	110	0.22	110	0

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8010 (HALOGENATED VOLATILE ORGANICS)
Blank Spike #: 23318
Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name : CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 06-MAR-92
Date Analyzed : 11-MAR-92
Sample Matrix : SOIL

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
CHLOROBENZENE	MG/KG	<0.025	0.21	0.20	105
CHLOROFORM	MG/KG	<0.010	0.23	0.20	115
1,1-DICHLOROETHENE	MG/KG	<0.010	0.25	0.20	125
TETRACHLOROETHENE	MG/KG	<0.010	0.21	0.20	105
TRICHLOROETHENE	MG/KG	<0.010	0.21	0.20	105

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY RESULTS

Test : EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)
Client : HARGIS & ASSOCIATES,INC. ATI I.D. : 203059
Project # : 322
Project Name: CASPIAN-S.D.

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	SB-14-6	SOIL	04-MAR-92	25-MAR-92	27-MAR-92	1.00
2	AC-15-10-14	SOIL	04-MAR-92	25-MAR-92	27-MAR-92	1.00
3	SB-15-30	SOIL	04-MAR-92	25-MAR-92	27-MAR-92	1.00

Parameter	Units	1	2	3
N-BUTANOL	MG/KG	<1.0	<1.0	<1.0
TERT-BUTANOL	MG/KG	<1.0	<1.0	<1.0
ISOBUTANOL	MG/KG	<1.0	<1.0	<1.0

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY RESULTS

Test : EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)
Client : HARGIS & ASSOCIATES,INC. ATI I.D. : 203059
Project # : 322
Project Name: CASPIAN-S.D.

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	SB-15-37	SOIL	04-MAR-92	25-MAR-92	27-MAR-92	1.00

Parameter	Units	4
N-BUTANOL	MG/KG	<1.0
TERT-BUTANOL	MG/KG	<1.0
ISOBUTANOL	MG/KG	<1.0

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)
Blank I.D. : 18457
Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 25-MAR-92
Date Analyzed : 27-MAR-92
Dil. Factor : 1.00

Parameters	Units	Results
N-BUTANOL	MG/KG	<1.0
TERT-BUTANOL	MG/KG	<1.0
ISOBUTANOL	MG/KG	<1.0

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

Test : EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)
MSMSD # : 31303
Client : HARGIS & ASSOCIATES,INC.

Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 25-MAR-92
Date Analyzed : 27-MAR-92
Sample Matrix : SOIL
REF I.D. : 203059-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
N-BUTANOL	MG/KG	<1.0	25	24	96	24	96	0

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Result)*100/Average Result

AnalyticalTechnologies,Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8015 (NON-HALOGENATED VOLATILE ORGANICS)
Blank Spike #: 23487
Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name : CASPIAN-S.D.

ATI I.D. : 203059
Date Extracted: 25-MAR-92
Date Analyzed : 27-MAR-92
Sample Matrix : SOIL

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
N-BUTANOL	MG/KG	<1.0	25	25	100

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Spiked Sample - Blank Result)*100/Average Result

HARGIS + ASSOCIATES, INC.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 3-5-92 PAGE 1 OF 1

PROJECT NAME: CASPIAN - S.D.
PROJECT No./TASK No.: 322
PROJECT MANAGER: Gary Vargas
FAX No.: 619-454-5839
QA MANAGER: Kathryn Porter
FAX No.:
SAMPLER (SIGNATURE): Edward Mediano / Laurence E Concors
SAMPLER (PRINTED): Edward Mediano / Laurence E Concors

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX Soil	MATRIX Ground-water	MATRIX Surface water	PRESERVATION HCl	PRESERVATION HNO3	PRESERVATION NaOH	PRESERVATION H2SO4	PRESERVATION Ice	SAMPLE CONTAINERS 2" x 6" brass tubes	ANALYSES REQUESTED EPA 8015 (Butanol only)	EPA 8010 (VOC's)	EPA 9045 (pH)	EPA 340.2 (Fluoride)	EPA 353.1 (Nitrate)	EPA 6010 (Titanium only)	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S	SPECIAL HANDLING	LABORATORY INFORMATION / REMARKS
01	SB-14-6	3-4-92	1000	X							X	X	X	X						Hold samples longer than 21 day disposal limit	
02	AG-15-10-14	3-4-92	1120	X							X	X	X	X							
03	SB-15-30	3-4-92	1250	X							X	X	X	X							
04	SB-15-37	3-4-92	1330	X							X	X	X	X							
05	SB-16-14	3-5-92	1000	X							X	X			X	X	X	X			
06	SB-16-20	3-5-92	1015	X							X	X			X	X	X	X			
07	AG-16-25	3-5-92	1030	X							X	X			X	X	X	X			
08	SB-16-30	3-5-92	1050	X							X	X			X	X	X	X			
09	AG-17-20-23	3-5-92	1200	X							X	X			X	X	X	X			
10	SB-17-25	3-5-92	1300	X							X	X			X	X	X	X			
	~~SB-17-30~~																				
11	SB-17-30	3-5-92	1315	X							X	X			X	X	X	X			

Total number of Containers per analysis:

Total No. of Containers: 11

Relinquished by:	Date	Received by:	Date
LARRY CONCORS	3/5/92		
HARGIS & ASSOC.	Time 1730		Time
Company		Company	

Relinquished by:	Date	Received by:	Date
		[signature]	3/5
	Time	ATI	Time 1730
Company		Laboratory	

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:
- ☒ No. of containers correct
- ☒ received good condition/cold
- ☒ custody seals secure
- ☒ conforms to COC document

Shipment Method:

Send Results to: Gary Vargas

- ☐ 3385 N. CAMPBELL No. 121 TUCSON, AZ 85719 (602) 881-7300
- ☐ 2222 S. DOBSON RD. No. 401 MESA, AZ 85202 (602) 345-0888
- ☒ 2223 AVENIDA DE LA PLAYA No. 300 LA JOLLA, CA 92037 (619) 454-0165
- ☐ 111 N. SEPULVEDA BLVD. No. 250 MANHATTAN BEACH, CA 90266 (213) 372-7992
- ☐ 1616 W. BURBANK BLVD. No. E BURBANK, CA. 91506 (818) 563-4569

Send invoice to La Jolla, CA Business Office Attn: Kim Sturek

HARGIS + ASSOCIATES, INC.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE [illegible] PAGE 1 OF 1

2030059

PROJECT NAME: CASPIAN - S.D.

PROJECT No./TASK No.: 322

PROJECT MANAGER: Gary Vargas **FAX No.:** [illegible]

QA MANAGER: Kathryn Harker **FAX No.:**

SAMPLER (SIGNATURE): [illegible]

SAMPLER (PRINTED): [illegible]

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX Soil	MATRIX Ground-water	MATRIX Surface water	PRESERVATION HCl	PRESERVATION HNO3	PRESERVATION NaOH	PRESERVATION H2SO4	PRESERVATION Ice	SAMPLE CONTAINERS Silver Lined Brass Tubes	ANALYSES REQUESTED EPA 8015 (Purgeable Organics)	ANALYSES REQUESTED EPA 8010 (VOC's)	ANALYSES REQUESTED EPA 7470 (Hg)	ANALYSES REQUESTED EPA 3060 (Cr VI)	ANALYSES REQUESTED EPA 3020 (Lead)	ANALYSES REQUESTED EPA 6010 (Metals)	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S	SPECIAL HANDLING Hold for [illegible]	LABORATORY INFORMATION / REMARKS
	[illegible]	3-4-92	[illegible]	X							X	X	X	X							
	[illegible]	3-4-92	1120	X							X	X	X	X							
	SB-15-30	3-4-92	1250	X							X	X	X	X							
	SB-15-37	3-4-92	1330	X							X	X	X	X							
	SB-16-14	3-5-92	1000	X							X	X			X	X	X	X			
	SB-16-20	3-5-92	1015	X							X	X			X	X	X	X			
	SB-16-25	3-5-92	1030	X							X	X			X	X	X	X			
	SB-16-30	3-5-92	1050	X							X	X			X	X	X	X			
	SB-17-20-23	3-5-92	1200	X							X	X			X	X	X	X			
	SB-17-25	3-5-92	1300	X							X	X			X	X	X	X			
	SB-17-30																				
	SB-17-30	3-5-92	[illegible]	X							X	X			X	X	X	X			

Total number of Containers per analysis:

Total No. of Containers: 11

Relinquished by:	Date	Received by:	Date
[illegible]	3/5/92		
Company: [illegible]	Time: 1730	Company:	Time:

Relinquished by:	Date	Received by:	Date
		[illegible]	3/5
Company:	Time:	Laboratory: ATL	Time: 1730

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

- ☒ No. of containers correct
- ☒ received good condition/cold
- ☐ custody seals secure
- ☐ conforms to COC document

Shipment Method:

Send Results to: Gary Vargas

- ☐ 3385 N. CAMPBELL No. 121 TUCSON, AZ 85719 (602) 881-7300
- ☐ 2222 S. DOBSON RD. No. 401 MESA, AZ 85202 (602) 345-0888
- ☒ 2223 AVENIDA DE LA PLAYA No. 300 LA JOLLA, CA 92037 (619) 454-0165
- ☐ 111 N. SEPULVEDA BLVD. No. 250 MANHATTAN BEACH, CA 90266 (213) 372-7992
- ☐ 1616 W. BURBANK BLVD. No. E BURBANK, CA. 91506 (818) 563-4569

Send invoice to La Jolla, CA Business Office Attn: Kim Sturek

HARGIS + ASSOCIATES, INC.
2223 Avenida de la Playa, Suite 300
La Jolla, California 92037
Telephone (619) 454-0165
Telecopier (619) 454-5839

TELEFAX TRANSMISSION COVER SHEET

Date: 5-27-92
Time: 14:44
Project No.: 322
Client: Caspian

To: Johanna Barry
Company: DHS
Telefax No.: 338-2377
Tel[illegible] No.: 338-2492

[illegible]: Gary Vargas

No. of Pages: 12 (Including this Cover Sheet)

COMMENTS: QA/QC for
Composite Samples: Al/tit

If there are problems with receivi[illegible] document, please call: Anita
at the following [illegible]mber: (619) 4[illegible]

faxfrm.001

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

RECEIVED
FEB 25 1992
HARGIS + ASSOCIATES, INC
LA JOLLA, CA

322
K 02
KLP
chemfile

ATI I.D.: 202167

February 21, 1992

HARGIS & ASSOCIATES, INC.
2223 AVENIDA DE LA PLAYA, SUITE 300
LA JOLLA, CA 92037

Project Name: CASPIAN-S.D.
Project # : 322

Attention: GARY VARGAS

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
February 14, 1992	16	SOIL

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed.

SUSAN M. SNYDER
SENIOR PROJECT MANAGER

Kenneth Wahl
KENNETH WAHL
LABORATORY MANAGER

CC: KATHRYN PARKER
HARGIS & ASSOCIATES, INC.
2223 AVENIDA DEL LA PLAYA NO. 300
LA JOLLA, CA 92037

AnalyticalTechnologies, Inc.

METALS - QUALITY CONTROL

BLANK SPIKE

Client : HARGIS & ASSOCIATES, INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D. : 202167

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ALUMINUM	22430	MG/KG	<20	237	250	95
TITANIUM	22430	MG/KG	<0.5	48.2	50.0	96

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

AnalyticalTech

METALS - QUALITY CONTROL

DUP/MS

Client : HARGIS & ASSOCIATES, INC.
Project # : 322 ATI I.D. : 202167
Project Name: CASPIAN-S.D.

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
ALUMINUM	202144-02	MG/KG	5820	5640	3	N/A	248	N/A*V
ALUMINUM	202167-05	MG/KG	16500	16800	2	N/A	247	N/A*V
TITANIUM	202167-05	MG/KG	361	378	5	N/A	49.3	N/A*V

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

*V SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE.

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20216

Sample #	Client ID	Matrix	Date Sampled	Date Received
16	CSB-7-0-15	SOIL	14-FEB-92	14-FEB-9

Parameter	Units	16
TITANIUM	MG/KG	1940

Analytical Techno

METALS RESULTS

Client : HARGIS & ASSOCIATES, INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 202167

Sample #	Client ID	Matrix	Date Sampled	Date Received
11	CSB-11-0-16	SOIL	14-FEB-92	14-FEB-92
12	CSB-11-16-28	SOIL	14-FEB-92	14-FEB-92
13	CSB-12-15-25	SOIL	14-FEB-92	14-FEB-92
14	CSB-12-25-35	SOIL	14-FEB-92	14-FEB-92
15	CSB-13-0-19	SOIL	14-FEB-92	14-FEB-92

Parameter	Units	11	12	13	14	15
ALUMINUM	MG/KG	19800	10300	4180	5280	-
TITANIUM	MG/KG	-	-	-	-	2980

AnalyticalTechnologies,Inc.

METALS RESULTS

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 202167

Sample #	Client ID	Matrix	Date Sampled	Date Received
6	CSB-8-20-25	SOIL	14-FEB-92	14-FEB-92
7	CSB-9-0-15	SOIL	14-FEB-92	14-FEB-92
8	CSB-9-15-28	SOIL	14-FEB-92	14-FEB-92
9	CSB-9-28-35	SOIL	14-FEB-92	14-FEB-92
10	CSB-10-16-24	SOIL	14-FEB-92	14-FEB-92

Parameter	Units	6	7	8	9	10
ALUMINUM	MG/KG	9980	15600	6320	4680	4150

Analytical Technologies, Inc.

METALS RESULTS

Page

Client : HARGIS & ASSOCIATES, INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 20216

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	CSB-1-20-35	SOIL	14-FEB-92	14-FEB-92
2	CSB-1-65-75	SOIL	14-FEB-92	14-FEB-92
3	CSB-1-80	SOIL	14-FEB-92	14-FEB-92
4	CSB-6-0-10	SOIL	14-FEB-92	14-FEB-92
5	CSB-8-0-20	SOIL	14-FEB-92	14-FEB-92

Parameter	Units	1	2	3	4	5
ALUMINUM	MG/KG	7680	4070	5150	15700	16500

AnalyticalTechnologies,Inc.

ANALYTICAL SCHEDULE

Page

Client : HARGIS & ASSOCIATES,INC.
Project # : 322
Project Name: CASPIAN-S.D.

ATI I.D.: 2021(

Analysis	Technique/Description
EPA 6010 (ALUMINUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (TITANIUM)	INDUCTIVELY COUPLED ARGON PLASMA

Analytical Technologies, Inc.

SAMPLE CROSS REFERENCE

Page

Client : HARGIS & ASSOCIATES, INC.
Project # : 322
Project Name: CASPIAN-S.D.

Report Date: February 21, 1992
ATI I.D. : 202167

ATI #	Client Description	Matrix	Date Collected
1	CSB-1-20-35	SOIL	14-FEB-92
2	CSB-1-65-75	SOIL	14-FEB-92
3	CSB-1-80	SOIL	14-FEB-92
4	CSB-6-0-10	SOIL	14-FEB-92
5	CSB-8-0-20	SOIL	14-FEB-92
6	CSB-8-20-25	SOIL	14-FEB-92
7	CSB-9-0-15	SOIL	14-FEB-92
8	CSB-9-15-28	SOIL	14-FEB-92
9	CSB-9-28-35	SOIL	14-FEB-92
10	CSB-10-16-24	SOIL	14-FEB-92
11	CSB-11-0-16	SOIL	14-FEB-92
12	CSB-11-16-28	SOIL	14-FEB-92
13	CSB-12-15-25	SOIL	14-FEB-92
14	CSB-12-25-35	SOIL	14-FEB-92
15	CSB-13-0-19	SOIL	14-FEB-92
16	CSB-7-0-15	SOIL	14-FEB-92

---TOTALS---

Matrix	# Samples
SOIL	16

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

HARGIS + ASSOCIATES, INC. **CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM**

DATE 2/14/92 PAGE 1 OF 2

MAY 27 '92 14:50

PROJECT NAME: CASPIAN - S.D.	PROJECT No./TASK No.: 322
PROJECT MANAGER: GARY VARGAS	FAX No.: 619-454-5839
QA MANAGER: Kathyn	FAX No.:
SAMPLER (SIGNATURE): Ed Madiano	SAMPLER (PRINTED): Ed Madiano

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX Soil	MATRIX Ground-water	MATRIX Surface water	PRESERVATION HCl	PRESERVATION HNO3	PRESERVATION NaOH	PRESERVATION H2SO4	PRESERVATION Ice	SAMPLE CONTAINERS: 90z glass	ANALYSES REQUESTED: EPA 6010 (Titanium only)	ANALYSES REQUESTED: EPA 6010 (Aluminum only)	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S	SPECIAL HANDLING	LABORATORY INFORMATION / REMARKS
01	CSB-1-20-35	2/14/92	1051	X								X		X			Hold all
02	CSB-1-65-75	2/14/92	1056	X								X		X			samples
03	CSB-1-80	2/14/92	1101	X								X		X			
04	CSB-6-0-10	2/14/92	1121	X								X		X			
05 16	CSB-7-0-15	2/14/92	1018	X								X	X				
06 05	CSB-8-0-20	2/14/92	1126	X								X		X			
07 06	CSB-8-20-25	2/14/92	1131	X								X		X			
08 07	CSB-9-0-15	2/14/92	1105	X								X		X			
09 08	CSB-9-15-28	2/14/92	1112	X								X		X			
10 09	CSB-9-28-35	2/14/92	1117	X								X		X			
11 10	CSB-10-16-24	2/14/92	1037	X								X		X			
12 11	CSB-11-0-16	2/14/92	1042	X								X		X			
13 12	CSB-11-16-28	2/14/92	1046	X								X		X			
14 13	CSB-12-15-25	2/14/92	1026	X								X		X			

Total number of Containers per analysis:

Total No. of Containers: 14

Relinquished by:	Date	Received by:	Date
Ed Madiano	2/14/92	Graf Tr	2-14-92
Company: Hargis & Associates	Time: 12/12	Company: ATI-SD	Time: 1210
Relinquished by:	Date	Received by:	Date
Company	Time	Laboratory	Time

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:
- [x] No. of containers correct
- [x] received good condition/cold
- NA custody seals secure
- [x] conforms to COC document

Shipment Method:

Send Results to: Gary Vargas

- [ ] 3385 N. CAMPBELL No. 121 TUCSON, AZ 85719 (602) 881-7369
- [ ] 2222 S. DOBSON RD. No. 401 MESA, AZ 85202 (602) 345-0888
- [x] 2223 AVENIDA DE LA PLAYA No. 380 LA JOLLA, CA 92037 (619) 454-0165
- [ ] 111 N. SEPULVEDA BLVD. No. 250 MANHATTAN BEACH, CA 90266 (213) 372-7992
- [ ] 1616 W. BURBANK BLVD. No. E BURBANK, CA. 91506 (818) 563-4569

Send invoice to La Jolla, CA Business Office Attn: Kim Sturek

Acc# 202167

ORIGINAL: LABORATORY YELLOW: QA MANAGER

HARGIS + ASSOCIATES, INC. **CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM**

DATE 2/14/92 PAGE 2 OF 2

MAY 27 '92 14:51

PROJECT NAME: CASREAN-S.D.	PROJECT No./TASK No.: 322
PROJECT MANAGER: Gary Vargas	FAX No.: 619-454-5839
QA MANAGER: Kathryn Parker	FAX No.:
SAMPLER (SIGNATURE):	SAMPLER (PRINTED):

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX Soil	MATRIX Ground-water	MATRIX Surface water	PRESERVATION HCl	PRESERVATION HNO3	PRESERVATION NaOH	PRESERVATION H2SO4	PRESERVATION Ice	SAMPLE CONTAINERS 8oz glass	ANALYSES REQUESTED EPA 6010 (Titanium only)	ANALYSES REQUESTED EPA 6010 (Aluminum only)	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S	SPECIAL HANDLING	LABORATORY INFORMATION / REMARKS
14	CSB-12-25-35	2/14/92	1032	X								X		X			Hold all samples
15	CSB-13-0-19	2/14/92	1011	X								X	X				

Total number of Containers per analysis:

Total No. of Containers:

Relinquished by:	Date	Received by:	Date
[signature]	2/14/92	[signature]	2-14-92
Hargis & Associates	Time 1212	ATI-SD	Time 1210
Company		Company	
Relinquished by:	Date	Received by:	Date
	Time		Time
Company		Laboratory	

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

☒ No. of containers correct ☒ received good condition/cold

NA custody seals secure ☒ conforms to COC document

Shipment Method:

Send Results to: Gary Vargas

☐ 3555 N. CAMPBELL No. 121 TUCSON, AZ 85719 (602) 881-7306

☐ 2222 S. DOBSON RD. No. 401 MESA, AZ 85202 (602) 345-0888

☒ 2223 AVENIDA DE LA PLAYA No. 300 LA JOLLA, CA 92037 (619) 454-6165

☐ 111 N. SEPULVEDA BLVD. No. 250 MANHATTAN BEACH, CA 90266 (213) 372-7992

☐ 1616 W. BURBANK BLVD. No. E BURBANK, CA. 91506 (818) 563-4569

Send invoice to La Jolla, CA Business Office Attn: Kim Sturek

Ac # 202167

ORIGINAL: LABORATORY YELLOW: QA MANAGER PINK: FIELD/TASK MANAGER

P.12

RWQCB

H07938

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 87-106

AN ORDER PROHIBITING THE
DISCHARGE OF WASTE

BY

CASPIAN INC.
SAN DIEGO COUNTY

The California Regional Water Quality Control Board (hereinafter Regional Board), finds that:

1. On April 5, 1971, this Regional Board adopted Order No. 71-24, *An Order Prohibiting Discharge of Industrial Wastes by Chemical Energy of California to the San Diego River Basin.* Order No. 71-24 prohibited Chemical Energy of California from discharging soluble industrial wastes to ground and surface waters of the San Diego River Basin. Order No. 71-24 also required that Chemical Energy of California cease any discharge to the San Diego River Basin by May 9, 1971.

2. On April 16, 1973, Mr. Leonard Burtman, Executive Officer, Regional Board, issued Cleanup and Abatement Order No. 73-16. Order No. 73-16 required Chemical Energy of California to terminate the discharge of industrial wastes to ground and surface waters of the Mission San Diego Hydrographic Subarea. Order No. 73-16 also required Chemical Energy of California to either remove or protect from runoff all wastes, trash, debris, etc., which could be washed into Murphy Canyon via stormwater runoff from the plant site.

3. As part of the waste discharge order update program, Order No. 71-24 has been reviewed by Regional Board staff in accordance with criteria established in the Administrative Procedures Manual adopted by the State Water Resources Control Board. As a result of this review, it has been determined that modification of the waste discharge requirements for Chemical Energy of California is necessary to ensure that a waste discharge from this facility into the waters of the state will not occur. Also, as a result of this review Regional Board staff was informed on July 23, 1987 by Ms. Linda Collins, Environmental Coordinator, Caspian Inc. that Chemical Energy of California is now known as Caspian Inc. No change in ownership occurred. This Order reflects the name change from Chemical Energy of California to Caspian Inc.

4. Caspian Inc. operates a metal product manufacturing plant at 4951 Ruffin Road in the City of San Diego. On September 9, 1986, a field inspection of this facility was made in order to verify compliance with the requirements of Order No. 71-24 and Cleanup and Abatement Order No. 73-16. The inspection revealed that the majority of the discharge violations as identified in Order Nos. 71-24 and 73-16 have been corrected by containing waste on site with concrete berms, collecting the wastes in a sump system and then disposing of the wastes in the municipal sewer system, or recycling the wastewater for reuse. However, on the south side of the facility a runoff discharge was noted. The discharge was the result of surface drainage from in and around the assembly buildings. The runoff discharges to a canyon on the south side of the facility. The discharge contained solids consisting of a green rubber coating material used to protect assembled parts. The discharge to the canyon was also noted during field inspections made on January 3, June 23, and December 12, 1986.

5. Caspian Inc. has been informed that the discharge to the canyon from the storm drain on the south side of the facility is a violation of the requirements established by Order Nos. 71-24 and 73-16.

6. In order to ensure that the discharge as identified in Finding No. 4 is terminated, Provision B.13 of this Order requires Caspian Inc. to submit a plan detailing how it will terminate this discharge. This plan must be approved by the Executive Officer and upon approval, Caspian Inc. must implement the plan and complete the work necessary to terminate this discharge. In order to obtain timely completion of these tasks, Provision B.13 of this Order establishes a time schedule to be met by Caspian Inc.

7. Caspian Inc. is located in the northwest 1/4 of the southeast 1/4 of Section 32, T15 S, R2W, SBB&M in the Mission San Diego Hydrographic Subarea of the lower San Diego Subunit of the San Diego Hydrographic Unit.

8. The *Comprehensive Water Quality Control Plan for the San Diego Basin (9),* (Basin Plan) was adopted by this Regional Board on March 17, 1975; approved by the State Water Resources Control Board on March 20, 1975; and updated by the Regional Board on February 27, 1978; March 23, 1981; January 24 and October 3, 1983; August 24, 1984; and December 16, 1985. The 1978, 1981, 1983, 1984, and 1985 updates were subsequently approved by the State Board.

9. The Basin Plan established the following beneficial uses for the surface water of the Mission San Diego Hydrographic Subarea.

a. Industrial service supply
b. Water contact recreation
c. Noncontact water recreation
d. Warm fresh-water habitat
e. Cold fresh-water habitat
f. Wildlife habitat
g. Preservation of rare and endangered species
h. Municipal and domestic supply (potential)
i. Groundwater recharge (potential)

10. The Basin Plan established the following beneficial uses for the groundwaters of the Mission San Diego Hydrographic Subarea.

a. Municipal and domestic supply
b. Agricultural supply
c. Industrial service supply
d. Industrial process supply (potential)
e. Groundwater recharge (potential)

11. The Basin Plan established the following water quality objectives for the surface and ground waters of the Mission San Diego Hydrographic Subarea[1].

	Concentration not to be exceeded more than 10 percent of the time during any one year period			
Constituent	Groundwater		Surface Water	
Total Dissolved Solids[2]	1500	mg/l	1500	mg/l
Chloride[2]	400	mg/l	400	mg/l
Percent Sodium	60		60	
Sulfate[2]	500	mg/l	500	mg/l
Nitrogen and Phosphorus	----		*	
Nitrate[2]	45	mg/l	----	
Iron[2]	0.3	mg/l	0.3	mg/l
Manganese[2]	0.05	mg/l	0.05	mg/l
Methylene Blue Active Substances	0.5	mg/l	0.5	mg/l
Boron[2]	0.5	mg/l	1.0	mg/l
Dissolved Oxygen	----		**	
Odor	None		None	
Turbidity	5	NTU	20	NTU
Color	15	units	20	units
Fluoride	1.0	mg/l		

Note: mg/l = milligrams per liter
NTU = Nephelometric Turbidity Unit

1. The Water Quality objectives do not apply westerly of the easterly boundary of interstate Highway 5. The objectives for the remainder of the hydrographic subunit (subarea) are as shown.

2. Detailed salt balance studies are recommended for this area to determine limiting mineral concentration levels for discharge. On the basis of existing date, the tabulated objectives would probably be maintained in most areas. Upon completion of the salt balance studies, significant water quality objective revisions may be necessary. In the interim period of time, projects of groundwater recharge with water quality inferior to the tabulated numerical values may be permitted following individual review and approval by the Regional Board if such projects do not degrade existing groundwater quality to the aquifers affected by the recharge.

* Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing water appears to be 0.1 mg/l total P. These values are not to be exceeded by more than 10 percent of the time unless studies of the specific water body in question clearly show that water quality objectives changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

** Ninety percent or more of natural seasonal minimum oxygen concentration and more than 5.0 mg/l maintained at least 90 percent of the time.

12. The Basin Plan contains the following prohibitions which are applicable to the discharge:

"Discharge of treated or untreated sewage or industrial wastes to a natural watercourse upstream of surface storage or diversion facilities used for municipal supply is prohibited.

"Discharge of treated or untreated sewage or industrial wastewater, exclusive of cooling water or other waters which are chemically unchanged, to a watercourse, is prohibited except in cases where the quality of said discharge complies with the receiving body's water quality objectives.

"Discharging of treated or untreated sewage or industrial wastes in such manner or volume as to cause sustained surface flow or ponding on lands not owned or under the control of the discharger is prohibited except in cases defined in the previous paragraph and in cases in which the responsibility for all downstream adverse effects is accepted by the discharger.

"The dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste directly into inland waters or watercourses or adjacent to the watercourses in any manner which may permit its being washed into the watercourse is prohibited.

"Dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste into natural or excavated sites below historic water levels or deposition of soluble industrial wastes at any site is prohibited, unless such site has been specifically approved by the Regional Board for that purpose."

13. Caspian Inc. is an existing facility and as such is exempt from the provisions of the California Environmental Quality Act, in accordance with Title 14, California Administrative Code, Chapter 3, Article 19, Section 15301.

14. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:

    a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;

    b. Other waste discharges;

    c. The need to prevent nuisance;

    d. Past, present, and probable future beneficial uses of the hydrographic unit under consideration;

    e. Environmental characteristics of the hydrographic unit under consideration;

    f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

    g. Economic considerations; and

    h. The need for developing housing within the region.

15. The Regional Board has considered all water resource related environmental factors associated with the existing discharge of waste.

16. The Regional Board has notified the discharger and all known interested parties of the intent to prescribe waste discharge requirements to prohibit discharges from Caspian Inc. to surface and ground waters of the Mission Hydrographic Subarea.

17. The Regional Board in a public meeting heard and considered all comments pertaining to the existing discharge.

IT IS HEREBY ORDERED, That Caspian Inc. (hereinafter discharger), in order to meet the provisions contained in Division No. 7 of the California Water Code and Regulations adopted thereunder, shall comply with the following:

A. *PROHIBITIONS*

1. Discharge of wastes or surface water runoff from the discharger's facility to ground and surface waters of the Mission Hydrographic Subarea is prohibited.

2. Operation and maintenance procedures at the discharger's facility that could cause a discharge of waste to ground and surface waters of the Mission Hydrographic Subarea are prohibited.

3. Discharges of wastes to lands for which valid waste discharge requirements are not in force are prohibited.

4. The discharge of any radiological, chemical or biological warfare agent, or high-level radiological waste is prohibited.

5. The disposal of wastewater in a manner that would result in ponding or surfacing of wastewater on lands beyond the Caspian Inc. facility site is prohibited.

B. *PROVISIONS*

1. The discharge of waste shall not create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.

2. The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.

3. In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order.

4. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

5. The discharger shall, at all times, properly operate and maintain all facilities and systems of containment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

6. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

   a. Violation of any terms or conditions of this Order;

   b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or

   c. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

7. This Order is not transferrable to any person except after notice to the Executive officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code. The discharger shall submit notice of any proposed transfer of this Order's responsibility and coverage to a new discharger as described under Reporting Requirement C.3.

8. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from his liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

9. The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

b. Have access to and copy at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

10. A copy of this Order shall be maintained at Caspian Inc. and shall be available to operating personnel at all times.

11. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 71-24. Order No. 71-24 is hereby rescinded when this Order becomes effective.

12. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

13. The discharger shall complete the following tasks in accordance with the following time schedule:

	Task	Completion Date	Report/Submittal Date
1.	Begin development of a plan to terminate the discharge identified in finding No. 4 of this Order.	August 27, 1987	September 10, 1987
2.	Complete the plan initiated in Task No. 1 in a manner acceptable to the Executive Officer.	October 27, 1987	November 10, 1987
3.	Begin work necessary to terminate the discharge as identified in finding No. 4 of this Order.	November 27, 1987	December 10, 1987
4.	Complete work initiated in Task No. 3.	January 27, 1988	February 10, 1988