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17 February 1995

Ms. Susan Hugo
Alameda County Health
Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 95402-6577

Mr. Sum Arigala
Regional Water Quality
Control Board
San Francisco Bay Region
2101 Webster Street
Oakland, California 94612

Dr. Ravi Arulanantham
Regional Water Quality
Control Board
San Francisco Bay Region
Suite 500
2101 Webster Street
Oakland, California 94612

Ms. Lynn Nakashima
CA Environmental Protection Agency
Dept. of Toxic Substances Control
Region 2
700 Heinz Avenue
Berkeley, California 94710-2737

Subject: Sampling and Analysis of Soil Stockpiles Generated During Excavation of the Ramp for the Temporary Parking Lot on Former PG&E/City of Emeryville Property, Emeryville, California, Chiron Corporation (EKI 930028.03)

Dear Agency Staff Members:

Erler & Kalinowski, Inc. ("EKI") is pleased to submit this report presenting the results of soil sampling and analysis of stockpiles generated during excavation of the ramp for Chiron Corporation's temporary parking lot recently completed on the former PG&E/City of Emeryville Property. The former PG&E/City of Emeryville Property ("Property") is located at the northwest corner of 53rd Street and Hollis Street in Emeryville, California. This report has been prepared in response to requests made by staff at the Regional Water Quality Control Board ("RWQCB"), Alameda County Department of Environmental Health ("ACDEH"), and the Department of Toxic Substances Control ("DTSC") during our recent meetings with RWQCB and ACDEH staff on 9 January 1995, and DTSC staff on 18 January 1995.

Chiron Corporation's plans for construction of the temporary parking lot were described in EKI's letters to the RWQCB and ACDEH, dated 11 November 1994 and 7 December 1994, respectively. These letters are included in Attachment A hereto and include:

(a) a description of the temporary parking lot,

(b) a summary of prior analytical sampling results from the Property,

(c) a summary of analytical results from soil sampling conducted at three discrete locations in area of the temporary parking lot ramp, prior to excavation of approximately 200 cubic yards of soil,

(d) soil sampling and stockpiling procedures of soils excavated during the construction of the ramp, and

(e) criteria for on-site relocation of these soils.

Pursuant to the procedures specified in these letters, samples were collected and analyzed from soil stockpiles generated during the excavation of the ramp. A description of soil stockpiling and sampling procedures, soil sampling analytical results, and plans for disposal of excavated soils and future work are presented below.

SOIL STOCKPILING AND SAMPLING PROCEDURES

A backhoe was used to excavate soil from the ramp area. Soils were excavated in sections to minimize mixing of soils during stockpiling. The soil from each section of the ramp area was placed in a dump truck and transported to the designated stockpiling area on-site (Figure 1). Independent soil stockpiles, corresponding to individually excavated ramp sections, were created from each truck load and were each approximately 10 cubic yards in size. To minimize surface water runoff and commingling of soils in the stockpiling area, soil stockpiles were placed on, and covered with, visqueen secured by sandbags. A six inch berm was also constructed around each stockpile and the stockpiling area.

Representative soil samples for each stockpile were collected by taking soil samples from the backhoe bucket as soil was excavated from the ramp area and placed into the dump truck. Two soil samples were collected from approximately every fourth back hoe bucket. These representative soil samples were placed in glass jars and labeled. The glass jars were placed in reseable plastic bags, which were stored on ice in a cooler. The samples were delivered to Sequoia Analytical Laboratory for chemical analysis.

Upon request by EKI, selected representative soil stockpile samples were composited by the laboratory. In general, samples from stockpiles associated with adjacent excavated sections of the ramp area were composited together. No more than two representative soil stockpile samples were composited for each analysis.

SOIL SAMPLING ANALYTICAL RESULTS

Pursuant to the approved plan, soil stockpile samples were analyzed for polychlorinated biphenyls ("PCBs") using EPA Method 8080, for arsenic using EPA Method 6010, and total extractable petroleum hydrocarbons ("TEPH") using EPA Method 8015 Modified.

Analytical results from soil stockpile samples and discrete soil samples collected from the ramp area prior to excavation are presented on Figures 2 and 3. Figure 2 includes:

(a) the locations of the individually excavated ramp sections from which stockpiles were created,

(b) the corresponding soil stockpile sampling numbers.

(c) the analytical results from representative discrete and composite soil samples collected from these stockpiles and

(d) the analytical results from soil samples collected from discrete locations in the ramp area prior to the excavation (i.e., P-East, P-Center, and P-West).

Figure 3 includes:

(a) analytical results from soil samples collected from stockpiles generated from the demolition of the concrete wall, and

(b) analytical results from soil samples collected stockpiles generated during the final grading of the ramp area.

A discussion of the measurement and distribution PCBs, arsenic, and TEPH concentrations detected in stockpiles from soils excavated from the ramp area is presented below. Laboratory analytical data sheets from soil stockpile samples are included in Attachment B.

Polychlorinated Biphenyls (PCBs)

PCB concentrations detected in soil stockpile samples ranged from 12 mg/kg to 5,400 mg/kg. These concentrations are significantly higher than the PCB concentrations detected in soil samples collected on other portions of the Property, with the exception of PCB concentrations historically detected in isolated locations

on the Property (Figure 1), which were excavated by PG&E between 1988 and 1989.

The elevated PCB concentrations detected in the ramp area are believed to be localized based on analytical results of stockpile sampling and analytical results from soil samples previously collected in the vicinity of the ramp area (EKI, November 1994).

In the ramp area, PCB concentrations exceeding 25 mg/kg were generally detected in::

(a) soil samples collected from stockpiles generated from excavation of sections of ramp area near the concrete wall (i.e., SP-2/SP-1, SP-3, and SP-5/SP-4) located at the western edge of the Property in the ramp area,

(b) the soil/concrete sample collected from stockpiles generated during the demolition of the concrete wall (i.e., SP-20) and

(c) soil samples collected from stockpiles generated during final grading of the ramp area (i.e., SP-21/SP-22, SP-23/SP-24).

These analytical results indicate that elevated PCB concentrations exceeding 25 mg/kg primarily exist along the concrete wall in the western portion of ramp area. These results are consistent with prior analytical results from soil sample P-West, in which 890 mg/kg of PCBs was detected. P-West was collected at a discrete location 1.5 to 1.75 feet below ground surface ("bgs") in the western portion of ramp area along the concrete wall (Figure 2). Further investigation of PCB concentrations along the concrete wall will be proposed to further characterize the vertical and lateral extent of PCBs in this area.

PCB concentrations detected in soil stockpile samples generated from excavation of the central and eastern sections of the ramp area ranged from 12 mg/kg to 150 mg/kg. PCB concentrations detected in these samples are higher than the PCB concentrations (i.e., 0.02 mg/kg to 1.1 mg/kg) detected in discrete soil samples P-East and P-Center collected from these areas prior to excavation of the ramp. Soil samples P-East and P-Center were collected along the center of the ramp area at depths of 0.5 to 0.75 feet bgs and 1 to 1.25 feet bgs, respectively (Figure 2).

The detection of consistently higher PCB concentrations in soil stockpile samples generated from excavation of the central and eastern sections of the ramp area, relative to PCB concentrations detected in discrete samples from these areas, may indicate that

PCBs exist within the ramp area in a thin soil layer not identified by the discrete samples. This layer may exist at the natural soil surface or at some other depth not intersected by the discrete samples. Further sampling of the ramp area will be proposed to characterize the vertical and lateral extent of PCBs in this area and to identify such a layer, if present.

Total Extractable Petroleum Hydrocarbons ("TEPH")

TEPH concentrations detected in soil stockpile samples ranged from 150 mg/kg to 1900 mg/kg. The TEPH concentrations were quantified as diesel, but described as a non-diesel mix with discrete peaks and carbon chain lengths ranging from C14 to C32. These TEPH concentrations are generally higher than TEPH concentrations detected on other portions of the Property which ranged from 1.5 mg/kg to 260 mg/kg. The presence of TEPH in soil stockpile samples generated from excavation of the ramp area is believed to be associated with the PCBs detected in these samples.

Arsenic

Arsenic concentrations detected in soil stockpile samples ranged from less than 5.0 mg/kg to 38 mg/kg. Arsenic concentrations detected in soil stockpile samples were consistent with arsenic concentrations detected in other samples previously collected on the Property (EKI, 11 November 1994).

PLANS FOR DISPOSAL OF EXCAVATED SOILS AND FUTURE WORK

All of soils excavated from the ramp area will be transported and disposed of in accordance with state and federal regulations at an off-site disposal facility. Analytical results from soil stockpile samples will be used to characterize excavated soils for disposal as required by the disposal site selected by Chiron Corporation.

As indicated above, additional soil sampling is planned in the vicinity of the ramp area to further characterize the lateral and vertical extent of PCB-impacted soils in this area.

EKI is currently preparing a sampling plan for the completion of this work and will submit the plan to RWQCB, ACDEH, and DTSC staffs for review and comment. As discussed with staff of the above mentioned agencies, additional excavation of soils from the ramp area will be conducted in conjunction with removal of soils currently scheduled to occur as part of Chiron Corporation's planned facility expansion in Emeryville, California.

Should you have any questions concerning these matters, please contact us.

Very truly yours,

ERLER & KALINOWSKI, INC.

Vera Nelson, P.E.
Project Manager

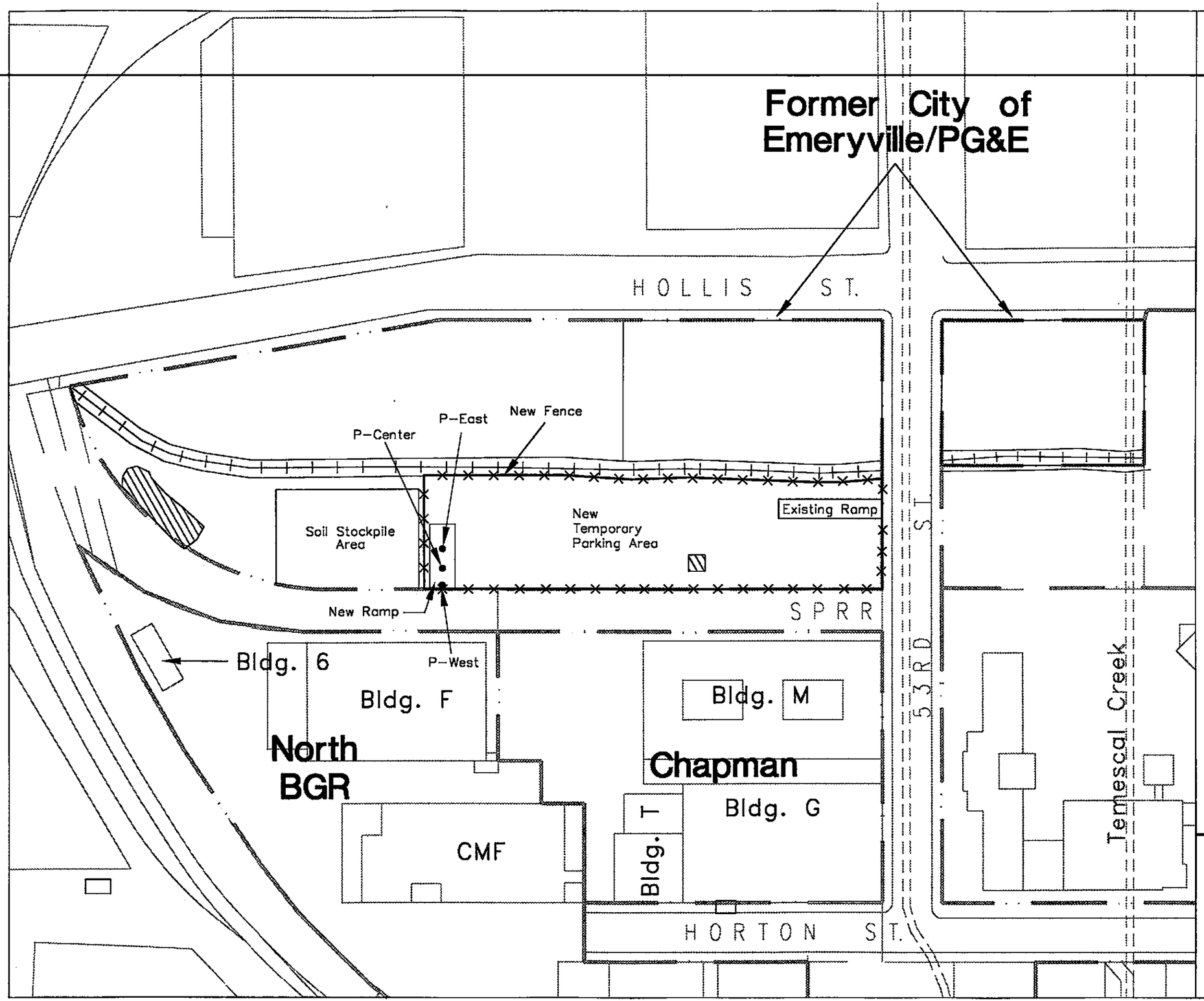
Stephen A. Tarantino, P.E.
Project Engineer

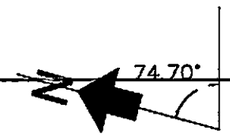
Attachment A:
Letter to Dr. Ravi Arulanantham from Erler & Kalinowski, dated 11 November 1994

Letter to Ms. Susan Hugo from Erler & Kalinowski, Inc., dated 7 December 1994

Attachment B:
Laboratory Analytical Data Sheets from Soil Stockpile Samples

cc: Mr. Ric Notini, Chiron Corporation
Ms. Sally Drach, McCutchen, Doyle, Brown & Enersen
(San Francisco Office)





0 100 200

(Approximate Scale in Feet)

LEGEND

- Former Area of Excavation by Others
- Property Boundary
- Location of Soil Sample taken 28 November 1994

Notes

1. All locations are approximate.

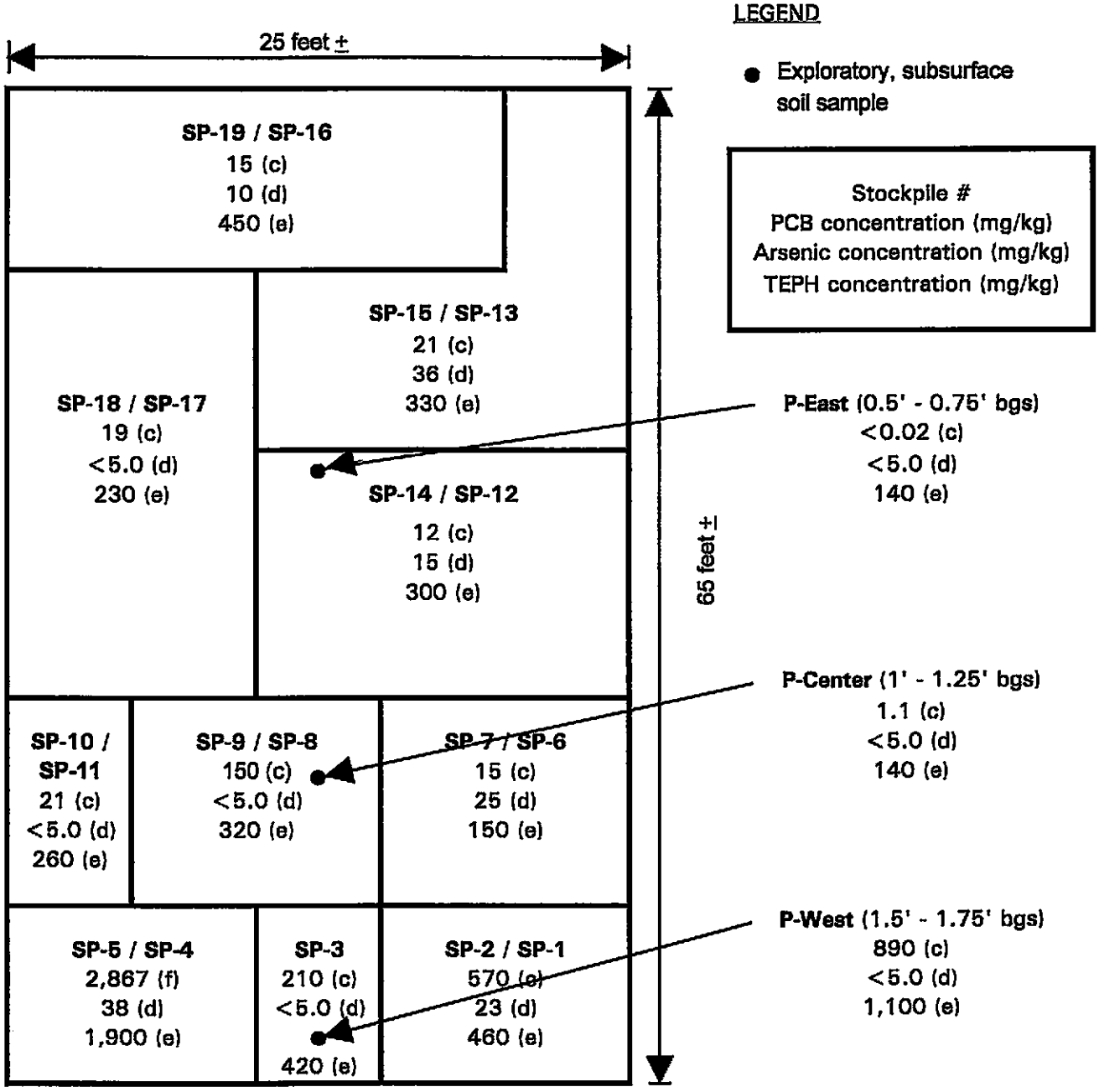
Erler & Kalinowski, Inc.

Ramp Soil Sample Locations and Stockpile Area

Chiron Corporation
Emeryville, CA
February 1995
EKI 930028.03
Figure 1

FIGURE 2
APPROXIMATE SOURCE LOCATIONS OF STOCKPILE SOIL
AND ANALYTICAL RESULTS OF STOCKPILE AND EXPLORATORY SOIL SAMPLES[a,b]
Chiron, Emeryville, California
(EKI 930028.03)

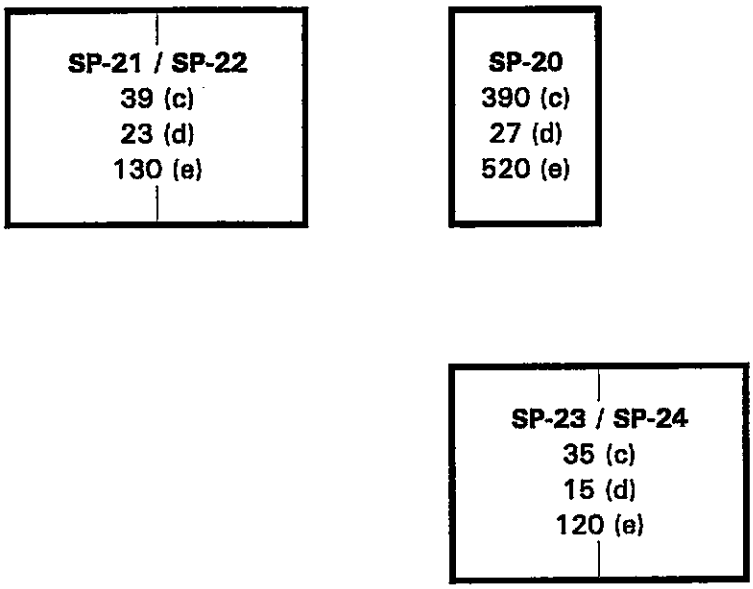
PLAN OF RAMP EXCAVATION:



Notes:

a. Stockpile SP-20 contains soil and concrete from wall demolition while SP-21, SP-22, SP-23, and SP-24 contain soil resulting from further grading of the entire ramp area (see Figure 2).
b. All concentrations are shown in mg/kg.
c. Sample results for PCB-1260 (Polychlorinated Biphenyls, EPA 8080)
d. Sample results for Arsenic (EPA 6010)
e. Sample results for TEPH as Diesel (Total Extractable Petroleum Hydrocarbons, EPA 8015 Modified), reported bylaboratory as Non Diesel Mix (C14-C24; C16-C24 for SP-4 / SP-5; C22-C29 for P-East, P-Center; C14-C32 for P-West)
f. Average concentration of PCBs detected in 3 stockpile soil samples collected from SP-4 and SP-5. PCB concentrations detected in individual stockpile soil samples were 5,400 mg/kg, 1,800 mg/kg and 1,400 mg/kg.

FIGURE 3
ANALYTICAL RESULTS OF STOCKPILE SOIL SAMPLES
GRADING OF NEW RAMP[a,b]
Chiron, Emeryville, California
(EKI 930028.03)



LEGEND

Stockpile #
PCB concentration (mg/kg)
Arsenic concentration (mg/kg)
TEPH concentration (mg/kg)

Notes:

a. Stockpile SP-20 contains soil and concrete from wall demolition while stockpiles SP-21, SP-22, SP-23, and SP-24 contain soil resulting from further grading of the entire ramp area.
b. All concentrations are shown in mg/kg.
c. Sample results for PCB-1260 (Polychlorinated Biphenyls, EPA 8080)
d. Sample results for Arsenic (EPA 6010)
e. Sample results for TEPH as Diesel (Total Extractable Petroleum Hydrocarbons, EPA 8015 Modified), reported by laboratory as Non Diesel Mix (C16-C24)

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Consulting Engineers and Scientists

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11 November 1994

Dr. Ravi Arulanantham
California Regional Water
Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: Temporary Parking Lot on Former
PG&E/City of Emeryville Property
Chiron Corporation, Emeryville, California
(EKI 930028.03)

Dear Dr. Arulanantham:

As we discussed during our recent meetings, Chiron Corporation recently purchased the former PG&E/City of Emeryville Property ("Property") as part of its proposed facility expansion in Emeryville, California. The Property is located at the northwest corner of 53rd Street and Hollis Street in Emeryville, California. Due to a severe shortage of parking in the area, Chiron plans to construct a temporary employee parking lot on the southwestern portion of the Property. The temporary parking lot will be removed during construction of Chiron's Phase I facility expansion, which is scheduled to begin in the spring of 1995.

Proposed Temporary Parking Lot Construction

The location of the proposed parking lot is shown on Figure 1. As indicated on this figure, the parking lot will be constructed over the southwestern portion of the Property, most of which is covered with existing concrete or asphalt.

In the area of the proposed parking lot, the existing concrete and asphalt will be coated with an asphaltic slurry seal. A primer, which creates a bond between the existing surface and the slurry seal, will be placed on the existing concrete and asphalt, prior to placement of the slurry seal.

A three-inch thick asphalt surface will be constructed on top of existing soil in the northern area of the temporary parking lot that extends beyond the perimeter of the existing concrete and asphalt. A ramp will be constructed at this northern end of the parking lot to accommodate traffic flow (see Figure 1).

A limited volume of soil (approximately 200 cubic yards) from the construction of the ramp will be spread in a three to six inch layer over the north portion of the site as shown on Figure 1. The soil will be placed and compacted so as not to change existing site drainage patterns.

Chemicals Detected in Soil and Concrete

As discussed in Erler & Kalinowski, Inc.'s Preliminary Site Investigation Report, dated 9 September 1993, polychlorinated biphenyls ("PCBs"), total extractable petroleum hydrocarbons ("TEPH"), and arsenic have been detected in soils on the Property. Measurable concentrations of PCBs (less than 1.1 mg/kg) and TPH (less than 260 mg/kg) have also been detected in concrete samples collected on the Property. A summary of PCB, TEPH and metal concentrations detected on the Property are summarized in Tables 1 through 5 of EKI's Soil and Concrete Relocation Sampling Plan, City of Emeryville/PG&E Site, dated 5 April 1994. A copy of these tables is included in Attachment A for reference. Soil and concrete sampling locations are presented on Figure 2.

Potential exposure of future parking lot users to chemicals detected in soil and concrete on the Property should be prevented by (a) the existing six inch thick concrete pad that exists over most of the proposed temporary parking lot area, (b) placement of a new asphalt surface over existing soil in the area of the parking lot that extends beyond the perimeter of the existing concrete and asphalt, (c) placement of an asphaltic slurry seal on existing concrete and asphalt areas, and (d) construction of a fence surrounding the temporary parking lot to prevent access to other portions of the Property (Figure 1).

Construction of the parking lot will be performed by a Chiron contractor with appropriately health and safety trained personnel. Prior to the initiation of work, the selected contractor will prepare and submit to Chiron (a) a health and safety plan for its personnel, (b) a construction dust control plan, and (c) a construction surface runoff plan.

Schedule

Chiron would like to begin construction of the temporary parking lot the week of 21 November 1994. Therefore, assuming work on the temporary lot can begin in late

November 1994, the temporary lot will be used for approximately five to six months. Chiron is proceeding with planning with its selected contractor and is procuring a building permit from the City of Emeryville.

Please let us know if you have any questions or concerns regarding this matter.

Very truly yours,

ERLER & KALINOWSKI, INC.

Vera Nelson, P.E.
Project Manager

Stephen A, Tarantino, P.E.
Project Engineer

cc: Ric Notini, Chiron Corporation
Sum Arigala, Regional Water Quality Control Board
Susan Hugo, Alameda County of Environmental Health
Lynn Nakashima, Department of Toxic Substances Control
Sally Drach, McCutchen, Doyle, and Enersen

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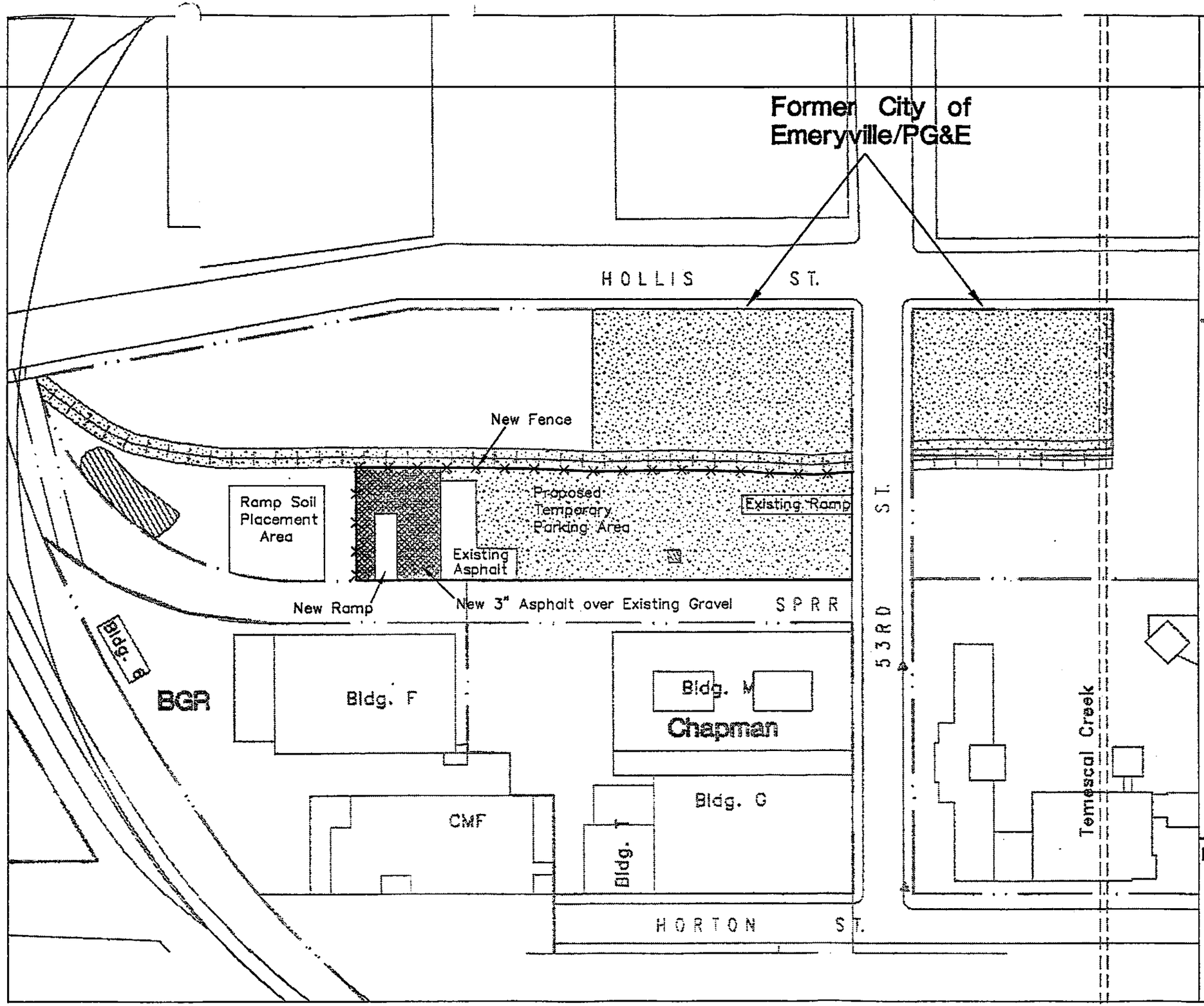


Notes:

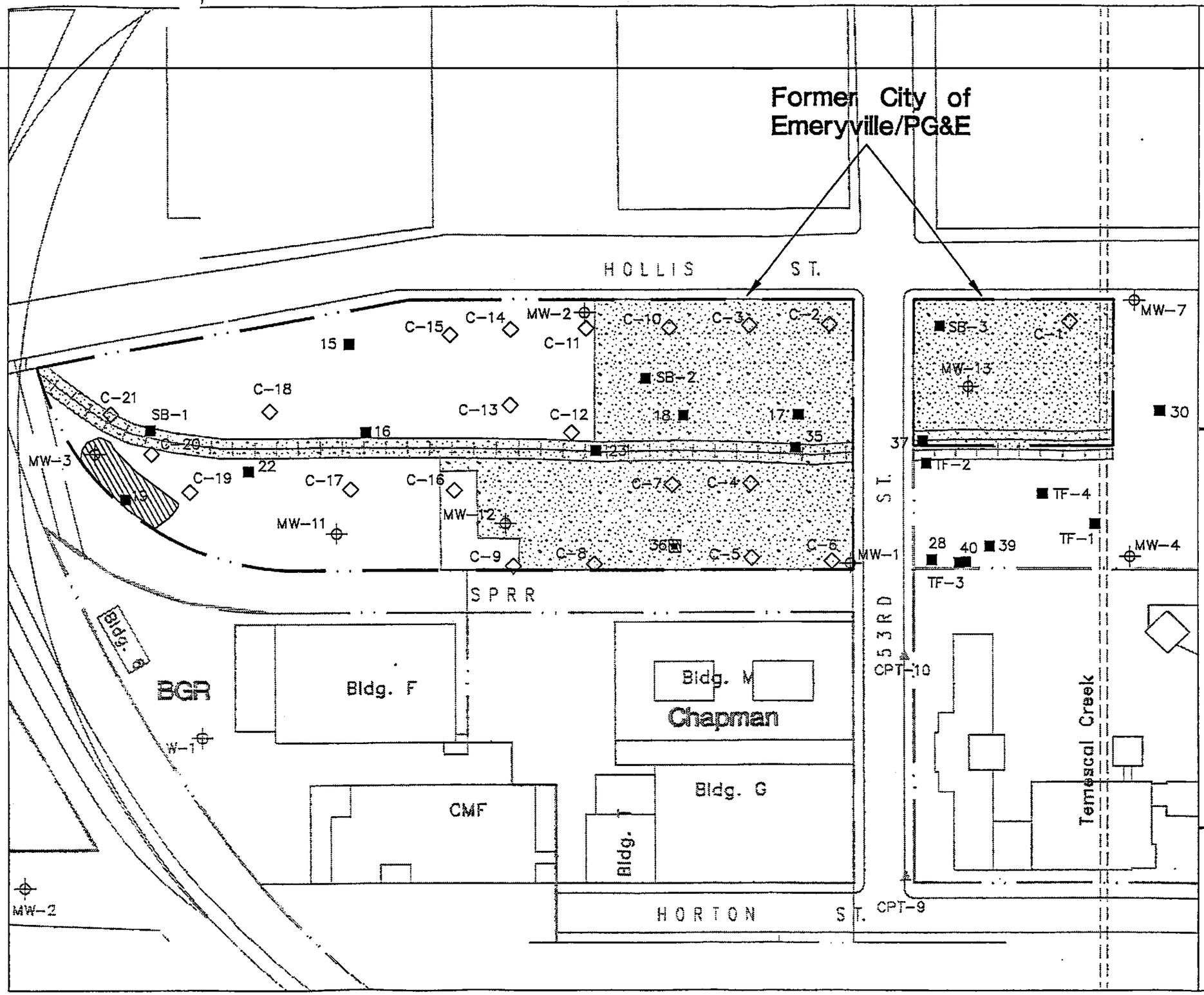
1. All locations are approximate.

Erler & Kalinowski, Inc.

Interm Parking Lot and General Layout

Chiron Corporation
Emeryville, CA
November 1994
EKI 930028.00

Figure 1



Notes:

1. All locations are approximate.

Erler & Kalinowski, Inc.

Soil and Concrete Sampling Locations

Chiron Corporation
Emeryville, CA
November 1994
EKI 930028.00
Figure 2

TABLE 1

POLYCHLORINATED BIPHENYL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	PCB1248 (mg/kg)	PCB1260 (mg/kg)	TOTAL PCB (2) (mg/kg)
HISTORIC DATA (Prior to 1993)								
EE-15	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-16	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-17	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-18	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-19	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	0.32	0.32
EE-22	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-23	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-35	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
EE-37	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.01	<0.01	<0.02
MW-11 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	<1.0	<1.0	<1.0
MW-13 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	<1.0	<1.0	<1.0
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	<1.0	<1.0	<1.0
SB-2 (2.0)	---	SOIL	6/21/91	HLA (10/18/91)	2.0	<1.0	<1.0	<1.0
SB-3 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	<1.0	<1.0	<1.0
Post-Excavation Samples collected during Soil Removal in Northern Area of Property in 1989 (4)								
SE12B	---	SOIL	6/2/89	E&E (8/89)	0.5	<0.1	4.9	4.9
SE13B	---	SOIL	6/2/89	E&E (8/89)	0.5	<0.1	10.9	10.9
SE14B	---	SOIL	6/2/89	E&E (8/89)	0.5	<0.1	0.6	0.6
SE15	---	SOIL	5/20/89	E&E (8/89)	0.5	<0.1	0.7	0.7
SE16	---	SOIL	5/20/89	E&E (8/89)	0.5	<0.1	0.4	0.4
SE17	---	SOIL	5/20/89	E&E (8/89)	0.5	<0.1	0.6	0.6
RECENT DATA (1993)								
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	<0.02	<0.02	<0.04
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	<0.02	0.04	0.04
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	<0.02	<0.02	<0.04

TABLE 1

POLYCHLORINATED BIPHENYL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	PCB1248 (mg/kg)	PCB1260 (mg/kg)	TOTAL PCB (2) (mg/kg)
RECENT DATA (1993) CONTINUED								
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	<0.20	0.77	0.77
C-13,14,15BC	C-13B,13C,14B,14C,15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	<0.02	0.14	0.14
C-13B	---	SOIL	7/20/93	EKI (9/8/93)	2.5	<0.02	0.04	0.04
C-14B	---	SOIL	7/20/93	EKI (9/8/93)	2	<0.02	0.76	0.76
C-15B	---	SOIL	7/20/93	EKI (9/8/93)	3	<0.02	<0.02	<0.04
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	<0.02	0.25	0.25
C-16,17,18BC	C-16B,16C,17B,17C,18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	<0.02	<0.02	<0.04
C-16-0	---	SOIL (3)	7/20/93	EKI (9/8/93)	Surface	<0.02	0.18	0.18
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	<0.20	2.1	2.1
C-19-0	---	SOIL	7/20/93	EKI (9/8/93)	Surface	0.27	1.2	1.47
C-20B	---	SOIL (3)	7/20/93	EKI (9/8/93)	3	<0.02	0.072	0.072
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	<0.02	<0.02	<0.04
C-4,5,6BC	C-4B,4C,5B,5C,6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	<0.02	<0.02	<0.04
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	<0.02	<0.02	<0.04
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.08	0.08
CC-1	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	<0.02	<0.04
CC-2	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	<0.02	<0.04
CC-3	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.065	0.065
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.03	0.03
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	0.02	0.11	0.13
CC-4	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	1.1	1.1
CC-5	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.62	0.62
CC-6	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.093	0.093
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.10	0.46	0.46
CC-7	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.18	0.18
CC-8	---	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.02	0.042	0.042

TABLE 2

PETROLEUM HYDROCARBON CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	OIL & GREASE (mg/kg)	TEPH (mg/kg)	CHROMATOGRAPHIC TEPH	TVPH (mg/kg)	CHROMATOGRAPHIC TVPH
HISTORIC DATA (Prior to 1993)										
SB-1 (1.5)	---	SOIL	6/21/91	IILA (10/18/91)	1.5	350	---	---	---	---
SB-2 (2.0)	---	SOIL	6/21/91	IILA (10/18/91)	2.0	4000	---	---	---	---
RECENT DATA (1993)										
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	---	5.1	NON-DIESEL MIX >C16	<1.0	---
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	---	3.1	NON-DIESEL MIX >C17	<1.0	---
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	---	<1.0	---	<1.0	---
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	---	23	NON-DIESEL MIX >C16	<1.0	---
C-13,14,15BC	C-13B,13C,14B,14C, 15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	---	6.4	NON-DIESEL MIX >C16	<1.0	---
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	---	4.0	NON-DIESEL MIX >C17	<1.0	---
C-16,17,18BC	C-16B,16C,17B, 17C,18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3	---	<1.0	---	<1.0	---
C-16-0		SOIL	7/20/93	EKI (9/8/93)	6, 2.5, 6 Surface	---	51 (2)	NON-DIESEL MIX >C17	<1.0	---
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	---	30	NON-DIESEL MIX >C16	<1.0	---
C-19-0		SOIL	7/20/93	EKI (9/8/93)	Surface	---	110 (2)	NON-DIESEL MIX >C16	<1.0	---
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	---	6.7	NON-DIESEL MIX >C17	<1.0	---
C-4,5,6BC	C-4B,4C,5B,5C,6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	---	2.2	NON-DIESEL MIX >C16	<1.0	---
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	---	1.5	NON-DIESEL MIX >C17	<1.0	---
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	---	260 (2)	NON-DIESEL MIX C16-C21	<1.0	---
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	---	27 (2)	NON-DIESEL MIX >C16	<1.0	---
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	---	110 (2)	NON-DIESEL MIX C16-C21	<1.0	---
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	---	110 (2)	NON-DIESEL MIX C16-C21	<1.0	---

TABLE 2

PETROLEUM HYDROCARBON CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930020.00)

Notes:

TEPH	Total extractable petroleum hydrocarbons
TVPH	Total volatile petroleum hydrocarbons
BGS	Below ground surface
mg/kg	Milligrams per kilogram
< 1.0	Not detected at or above indicated laboratory detection limit
---	Compound not analyzed and/or data not obtained

(1) Data obtained from the following sources:

HLA: Harding Lawson Associates, Soil and Groundwater Investigation, PG&E Materials Distribution Facility, 53rd and Hollis Streets, Emeryville, California, report dated 19 October 1991.

EKI: Erler & Kalinowski, Inc., Preliminary Site Investigation Report, Chiron Corporation, Emeryville, California, report dated 8 September 1993.

(2) Samples may have contained asphaltic material.

TABLE 1

POLYCHLORINATED BIPHENYL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

Notes:

PCB	Polychlorinated biphenyls
BGS	Below ground surface
mg/kg	Milligrams per kilogram
<0.01	Not detected at or above indicated laboratory detection limit
---	Compound not analyzed and/or data not obtained

(1) Data obtained from the following sources:
NUS: NUS Corporation, Preliminary Assessment of PG & E Emeryville, report dated 31 May 1991.
HLA: Harding Lawson Associates, Soil and Groundwater Investigation, PG&E Materials Distribution Facility, 53rd and Hollis Streets, Emeryville, California, report dated 18 October 1991.
E&E: Ecology & Environment, Inc., Final Documentation Report Post-Excvation Sampling, PG&E Materials Distribution Center, Emeryville, California, report dated August 1989.
EKI: Erler & Kalinowski, Inc., Preliminary Site Investigation Report, Chiron Corporation, Emeryville, California, report dated 8 September 1993.

(2) Total PCB concentration is the sum of PCB1248 and PCB1260 concentrations.

(3) Soil samples may have contained asphaltic material.

(4) These soil samples were collected from 0.5 feet below the pre-excavation ground surface. E&E post excavation sampling report indicates that excavation was backfilled with soil containing less than 25 parts per million PCBs. Actual concentrations in backfill may be lower.

TABLE 2

PETROLEUM HYDROCARBON CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930029.00)

Notes:

TEPH	Total extractable petroleum hydrocarbons
TVPH	Total volatile petroleum hydrocarbons
BGS	Below ground surface
mg/kg	Milligrams per kilogram
< 1.0	Not detected at or above indicated laboratory detection limit
---	Compound not analyzed and/or data not obtained

(1) Data obtained from the following sources:
HLA: Harding Lawson Associates, Soil and Groundwater Investigation, PG&E Materials Distribution Facility, 53rd and Hollis Streets, Emeryville, California, report dated 18 October 1991.
EKI: Erler & Kalinowski, Inc., Preliminary Site Investigation Report, Chiron Corporation, Emeryville, California, report dated 8 September 1993.

(2) Samples may have contained asphaltic material.

TABLE 3

BTEX CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	BENZENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOLUENE (mg/kg)	TOTAL XYLENES (mg/kg)
HISTORIC DATA (Prior to 1993)									
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	---	---	---	---
SB-2 (2.0)	---	SOIL	6/21/91	HLA (10/18/91)	2.0	---	---	---	---
EE-15	---	SOIL	8/27/87	NUS (5/31/91)	1.5	<0.03	<0.03	0.088	---
Post Excavation Samples Collected during Soil Removal in Northern Area of Property in 1989 (2)									
SE12	---	SOIL	5/30/89	E&E (8/89)	0.5	<0.001	0.002	0.012	0.013
SE13	---	SOIL	5/30/89	E&E (8/89)	0.5	<0.001	<0.001	0.005	0.006
SE14	---	SOIL	5/30/89	E&E (8/89)	0.5	<0.001	<0.001	0.005	0.006
RECENT DATA (1993)									
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	<0.10	<0.10	<0.10	<0.10
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	<0.10	<0.10	<0.10	<0.10
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 6.5, 6.5	<0.10	<0.10	<0.10	<0.10
C-13,14,15A	C-14A,13A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	<0.10	<0.10	<0.10	<0.10
C-13,14,15BC	C-14B,14C,13B,13C, 15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	<0.10	<0.10	<0.10	<0.10
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	<0.10	<0.10	<0.10	<0.10
C-16,17,18BC	C-16B,16C,17B, 17C,18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3 6, 2.5, 6	<0.10	<0.10	<0.10	<0.10
C-16-0		SOIL (3)	7/20/93	EKI (9/8/93)	Surface	<0.10	<0.10	<0.10	<0.10
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	<0.10	<0.10	<0.10	<0.10
C-19-0		SOIL (3)	7/20/93	EKI (9/8/93)	Surface	<5.0	<5.0	<5.0	0.39
C-4,5,6A	C-6A,5A,4A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	<0.10	<0.10	<0.10	<0.10

TABLE 3

BTEX CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	BENZENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOLUENE (mg/kg)	TOTAL XYLENES (mg/kg)
RECENT DATA (1993) CONTINUED									
C-4,5,6BC	C-6B,6C,5B,5C,4B,4C	SOIL	7/21/93	EKI (9/8/93)	5.5, 3.5, 5.5, 4,	<0.10	<0.10	<0.10	<0.10
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	<0.10	<0.10	<0.10	<0.10
CC-1,2,3-0	CC-1,2,3	CONCRETE (3)	7/20/93	EKI (9/8/93)	Surface	<0.10	<0.10	<0.10	<0.10
CC-10,12-0	CC-10,12	CONCRETE (3)	7/20/93	EKI (9/8/93)	Surface	<0.10	<0.10	<0.10	<0.10
CC-4,5,6-0	CC-4,5,6	CONCRETE (3)	7/20/93	EKI (9/8/93)	Surface	<0.10	<0.10	<0.10	<0.10
CC-7,8-0	CC-7,8	CONCRETE (3)	7/20/93	EKI (9/8/93)	Surface	<0.10	<0.10	<0.10	<0.10

Notes:

BTEX	Benzene, toluene, ethyl benzene, total xylenes
BGS	Below ground surface
mg/kg	Milligrams per kilogram
<0.10	Not detected at or above indicated laboratory detection limit
---	Compound not analyzed and/or data not obtained

(1) Data obtained from the following sources:

NUS: NUS Corporation, Preliminary Assessment of PG & E Emeryville, report dated 31 May 1991.

HLA: Harding Lawson Associates, Soil and Groundwater Investigation, PG&E Materials Distribution Facility, 53rd and Hollis Streets, Emeryville, California, report dated 18 October 1991.

E&E: Ecology & Environment, Inc., Final Documentation Report Post-Excavation Sampling, PG&E Materials Distribution Center, Emeryville, California, report dated August 1989.

EKI: Erler & Kalinowski, Inc., Preliminary Site Investigation Report, Chiron Corporation, Emeryville, California, report dated 8 September 1993.

(2) These soil samples were collected from 0.5 feet below the pre-excavation ground surface.

(3) Samples may have contained asphaltic material.

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	ARSENIC (mg/kg)	ARSENIC 10 x STLC (mg/l)	ARSENIC (WET) (mg/l)	ARSENIC STLC (mg/l)
HISTORIC DATA (Prior to 1993)									
EE-16 Composite	EE-16-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	12.9	50	---	5
EE-23 Composite	EE-23-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	32.2	50	---	5
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	340	50	6.2	5
RECENT DATA (1993)									
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	27	50	---	5
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	<5.0	50	---	5
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 6.5, 5.5	<5.0	50	---	5
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	<5.0	50	---	5
C-13,14,15BC	C-13B,13C,14B,14C,15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 6.5, 3, 6.5	<5.0	50	---	5
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	99	50	4.0	5
C-16,17,18BC	C-16B,16C,17B,17C,18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	<5.0	50	---	5
C-16-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	220	50	7.7	5
C-19-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	15	50	---	5
C-4,5,6BC	C-4B,4C,5B,5C,6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	(---) <5.0	50	---	5
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	<5.0	50	---	5
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
CC-7,8 0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	CHROMIUM VI (mg/kg)	CHROMIUM VI 10 x STLC (mg/l)	CHROMIUM (mg/kg)	CHROMIUM 10 x STLC (mg/l)	CHROMIUM (WET) (mg/l)	CHROMIUM STLC (mg/l)
HISTORIC DATA (Prior to 1993)											
EE-16 Composite	EE-16-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	---	50	39.3	50	---	5
EE-23 Composite	EE-23-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	---	50	31.5	50	---	5
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	---	50	<5	50	---	5
RECENT DATA (1993)											
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	<0.05	50	37	50	---	5
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	<0.50	50	32	50	---	5
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	<0.50	50	42	50	---	5
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	<0.50	50	32	50	---	5
C-13,14,15BC	C-13B,13C,14B,14C, 15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	<0.50	50	54	50	0.40	5
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	<0.50	50	42	50	---	5
C-16,17,18BC	C-16B,16C,17B,17C, 18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	<0.50	50	47	50	---	5
C-16-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.05	50	33	50	---	5
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	---	---	---	---	---	---
C-19-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.05	50	25	50	---	5
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	<0.05	50	50	50	0.35	5
C-4,5,6BC	C-4B,4C,5B,5C, 6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	<0.05	50	36	50	---	5
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	<0.05	50	29	50	---	5
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.05	50	33	50	---	5
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.05	50	19	50	---	5
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.05	50	23	50	---	5
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.05	50	24	50	---	5

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	CADMIUM (mg/kg)	CADMIUM 10 x STLC (mg/l)
HISTORIC DATA (Prior to 1993)							
EE-16 Composite	EE-16-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	<2	10
EE-23 Composite	EE-23-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	<2	10
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	4.8	10
RECENT DATA (1993)							
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	0.72	10
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	<5.0	10
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	<5.0	10
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	1.0	10
C-13,14,15BC	C-13B,13C,14B,14C,15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	<5.0	10
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	0.83	10
C-16,17,18BC	C-16B,16C,17B,17C,18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	<5.0	10
C-16-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.50	10
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	---	---
C-19-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.50	10
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	0.56	10
C-4,5,6BC	C-4B,4C,5B,5C,6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	0.61	10
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	0.57	10
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	2.8	10
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.50	10
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	3.7	10
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	0.61	10

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	LEAD (mg/kg)	LEAD 10 x STLC (mg/l)	LEAD WET (mg/l)	LEAD STLC (mg/l)
HISTORIC DATA (Prior to 1993)									
EE-16 Composite	EE-16-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	51.9	50	4.2	5
EE-23 Composite	EE-23-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	62.3	50	---	5
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	190	50	<1.0	5
RECENT DATA (1993)									
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	9.3	50	---	5
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	7.0	50	---	5
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	7.4	50	---	5
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	120	50	2.6	5
C-13,14,15BC	C-13B,13C,14B,14C, 15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	30	50	---	5
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	120	50	2.8	5
C-16,17,18BC	C-16B,16C,17B,17C, 18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	56	50	0.69	5
C-16-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	12	50	---	5
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	---	---	---	---
C-19-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	26	50	---	5
C-4,5,6BC	C-4B,4C,5B,5C, 6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	13	50	---	5
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	13	50	---	5
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	6.1	50	---	5
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<5.0	50	---	5

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

SAMPLE NUMBER	COMPOSITED SAMPLES	MATRIX	DATE SAMPLED	SOURCE OF DATA (1)	SAMPLE COLLECTION DEPTH (Feet BGS)	MERCURY (mg/kg)	MERCURY 10 x STLC (mg/l)
HISTORIC DATA (Prior to 1993)							
EE-16 Composite	EE-16-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	<0.2	2
EE-23 Composite	EE-23-1,2,3,4	SOIL	8/27/87	NUS (5/31/91)	1.5, 6.5, 11.5, 16.5	<0.2	2
SB-1 (1.5)	---	SOIL	6/21/91	HLA (10/18/91)	1.5	0.36	2
RECENT DATA (1993)							
C-1,2,3A	C-1A,2A,3A	SOIL	7/21/93	EKI (9/8/93)	2.5, 2, 2	<0.10	2
C-10,11,12A	C-10A,11A,12A	SOIL	7/20/93	EKI (9/8/93)	1.5, 2, 2.5	0.15	2
C-10,11,12BC	C-10B,10C,11B,11C,12C	SOIL	7/20/93	EKI (9/8/93)	3, 6, 3, 5.5, 5.5	<0.10	2
C-13,14,15A	C-13A,14A,15A	SOIL	7/20/93	EKI (9/8/93)	0.5, 1, 1	0.14	2
C-13,14,15BC	C-13B,13C,14B,14C, 15B,15C	SOIL	7/20/93	EKI (9/8/93)	2, 5.5, 2.5, 5.5, 3, 5.5	0.12	2
C-16,17,18A	C-16A,17A,18A	SOIL	7/20/93	EKI (9/8/93)	2, 1.5, 1.5	0.82	2
C-16,17,18BC	C-16B,16C,17B,17C, 18B,18C	SOIL	7/20/93	EKI (9/8/93)	3.5, 5, 3, 6, 2.5, 6	<0.10	2
C-16-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.10	2
C-19,20,21A	C-19A,20A,21A	SOIL	7/20/93	EKI (9/8/93)	0.5, 2, 0.5	---	---
C-19-0	---	SOIL (2)	7/20/93	EKI (9/8/93)	Surface	<0.10	2
C-4,5,6A	C-4A,5A,6A	SOIL	7/21/93	EKI (9/8/93)	2, 2.5, 2.5	0.11	2
C-4,5,6BC	C-4B,4C,5B,5C, 6B,6C	SOIL	7/21/93	EKI (9/8/93)	3, 5.5, 3.5, 5.5, 4, 5.5	0.13	2
C-7,8A	C-7A,8A	SOIL	7/20/93	EKI (9/8/93)	2, 2.5	0.16	2
CC-1,2,3-0	CC-1,2,3	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.10	2
CC-10,12-0	CC-10,12	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.10	2
CC-4,5,6-0	CC-4,5,6	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.10	2
CC-7,8-0	CC-7,8	CONCRETE	7/20/93	EKI (9/8/93)	Surface	<0.10	2

TABLE 4

METAL CONCENTRATIONS DETECTED IN SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

Notes:

WET	Waste extraction test
STLC	Soluble threshold limit concentration
BGS	Below ground surface
mg/kg	Milligrams per kilogram
mg/l	Milligram per liter
< 2.0	Not detected at or above indicated laboratory detection limit
---	Compound not analyzed

(1) Data obtained from the following sources:

NUS: NUS Corporation, Preliminary Assessment of PG & E Emeryville, report dated 31 May 1991.

HLA: Harding Lawson Associates, Soil and Groundwater Investigation, PG&E Materials Distribution Facility, 63rd and Hollis Streets, Emeryville, California, report dated 18 October 1991.

EKI: Erler & Kalinowski, Inc., Preliminary Site Investigation Report, Chiron Corporation, Emeryville, California, report dated 8 September 1993.

(2) Soil samples may have contained asphaltic material.

TABLE 5

SUMMARY OF ANALYTICAL RESULTS FOR SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE (1)
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

COMPOUND	DTSC ACCEPTANCE CRITERIA FOR RELOCATION	GUIDANCE FOR REMOVAL CRITERIA	NUMBER OF ANALYSES CONDUCTED	NUMBER OF SAMPLES EXCEEDING CRITERIA	MAXIMUM CONCENTRATION DETECTED	ARITHMETIC AVERAGE OF CONCENTRATIONS DETECTED (2)
PCBs (EPA 8080)	1.0 mg/kg	DTSC (3)	43	3	2.1	0.19 mg/kg
TVPH	100 mg/kg	DTSC (3)	17	0	ND (<1.0 mg/kg)	NA
TEPH	100 mg/kg	DTSC (3)	17	4 (4)	260 mg/kg	44 mg/kg
Oil & Grease	---	---	2	0	4000 mg/kg	2200 mg/kg
BTEX	NS	---	21	0	0.39 mg/kg	0.53 mg/kg
EPA 8240 (excluding BTEX)	NS	---	28	---	0.42 mg/kg (5) (methylene chloride)	NA
EPA 8270	NS	---	14	---	ND (<5.0 mg/kg)	NA
Arsenic	TTLC: 500 mg/kg STLC: 5.0 mg/l	Title 22 Title 22	19 3 (WET)	0 2	340 mg/kg 7.7 mg/l	41 mg/kg 6.0 mg/l
Cadmium	TTLC: 100 mg/kg	Title 22	19	0	4.8 mg/kg	1.5 mg/kg
Total Chromium	TTLC: 2500 mg/kg STLC: 5.0 mg/l	Title 22 Title 22	19 2 (WET)	0 0	54 mg/kg 0.40 mg/l	33 mg/kg 0.38 mg/l
Chromium VI	TTLC: 500 mg/kg	Title 22	16	0	ND (<0.50 mg/kg)	---
Total Lead	TTLC: 1000 mg/kg STLC: 5.0 mg/l	Title 22/DTSC (3) Title 22	19 5 (WET)	0 0	120 mg/kg 4.2 mg/l	39 mg/kg 2.2 mg/l
Mercury	TTLC: 20 mg/kg	Title 22	19	0	0.82 mg/kg	0.14 mg/kg
Asbestos	TTLC: 1.0 percent	Title 22	5	0	ND (<1.0 percent)	---

TABLE 5

SUMMARY OF ANALYTICAL RESULTS FOR SOIL AND CONCRETE SAMPLES
COLLECTED FROM 0 TO 3 FEET BELOW GROUND SURFACE (1)
City of Emeryville/PG&E Site
Emeryville, California
(EKI 930028.00)

Notes:

PCBs	Polychlorinated biphenyls
TVPH	Total volatile petroleum hydrocarbons
TEPH	Total extractable petroleum hydrocarbons
BTEX	Benzene, toluene, ethyl benzene, total xylenes
mg/kg	Milligrams per kilogram
mg/l	Milligrams per liter
DTSC	California Department of Toxic Substances Control
Title 22	California Code of Regulations, Title 22
WET	Waste extraction test
ND	Compound not detected; value reported indicates the highest detection limit value reported for the analytical method
NA	Not applicable; compounds either not detected or the arithmetic average is less than the detection limit
NS	Not specified
TTLC	Total threshold limit concentration in Title 22, California Code of Regulations
STLC	Soluble threshold limit concentration in Title 22, California Code of Regulations
---	Data not obtained and/or not available or applicable.

(1) Does not include data obtained from the northern portion of the property that was previously excavated.

(2) The value of 1/2 the laboratory-reported limit of detection was used for calculating concentration averages where compounds were reported as not detected.

(3) DTSC acceptance criteria for relocation of soil and concrete to Shellmound properties based on information presented in letter from the City of Emeryville dated 9 March 1994. Confirmation of DTSC criteria regarding maximum concentrations allowed for the relocation of concrete debris and soil from the City of Emeryville/PG&E site was received at a meeting with DTSC on 17 March 1993 .

(4) Samples may have contained asphaltic material.

(5) Methylene chloride was the only compound detected (sample no. EE-16) and its presence is a suspected laboratory contaminant.

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Consulting Engineers and Scientists
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San Mateo, California 94402
(415) 578-1172
Fax (415) 578-9131

7 December 1994

Ms. Susan L. Hugo
Alameda County
Health Care Services Agency
Dept. of Environmental Health
1131 Harbor Bay Pkwy 2nd Flr.
Alameda, CA 94502-6577

Subject: Construction of Temporary Parking Lot on Former PG&E/City of Emeryville Property, Emeryville California, Chiron Corporation
(EKI 930028.03)

Dear Ms. Hugo:

In response to your request, Erler & Kalinowski, Inc. ("EKI") has prepared this letter report summarizing Chiron Corporation's revised plans for construction of the temporary parking lot on the former PG&E/City of Emeryville Property ("Property"), located at the northwest corner of 53rd Street and Hollis Street in Emeryville, California. A description of the plans for construction of the temporary parking lot was provided in EKI's letter, dated 11 November 1994, to Dr. Ravi Arulanantham of the Regional Water Quality Control Board ("RWQCB"). The information provided herein is consistent with the information conveyed to you, Dr. Ravi Arulanantham, and Sum Arigala of the RWQCB during our telephone conference call on 5 December 1994.

This letter includes:

(a) a summary of analytical results from soil samples collected along the new ramp being constructed by Chiron Corporation as part of the new temporary parking lot, and

(b) modifications to the plans for construction of the parking lot, summarized previously in EKI's letter to Dr. Ravi Arulanantham, dated 11 November 1994.

SOIL SAMPLING ANALYTICAL RESULTS

Three soil samples were collected from the area where the new ramp for the temporary parking lot is planned to be constructed. Copies of the laboratory data sheets are attached. The location of the ramp and the three soil samples that were collected are shown on Figure 1. The soil samples were analyzed for Polychlorinated Biphenyls ("PCBs"), using EPA Method 8080, arsenic, using EPA Method 6010, and total extractable petroleum hydrocarbons ("TEPH"), using the modified EPA Method 8015. The sample collection depths and analytical results are summarized in Table 1.

As indicated in Table 1, PCBs, TEPH and arsenic concentrations detected in two of three samples collected from the ramp area were consistent with concentrations detected in soil samples previously collected outside of excavated areas on the Property (i.e., PCBs less than 2.1 mg/kg, TEPH less than 260, and arsenic less than 340 mg/kg) (EKI, Soil and Concrete Sampling Relocation Plan, 5 April 1994).

However, PCB and TEPH concentrations detected in the soil sample collected from the western edge of the proposed ramp were higher than concentrations previously detected on the property outside of excavated areas (890 mg/kg and 1100 mg/kg). This sample was collected at 1.5 feet below ground surface approximately three feet from the retaining wall.

MODIFICATIONS TO PLANS FOR CONSTRUCTION OF THE TEMPORARY PARKING LOT

The original plan for the construction of the temporary parking lot, as outlined in EKI's letter dated, 11 November 1994, was to relocate and compact soil excavated during the construction of the ramp (approximately 200 cubic yards) in a three to six inch thick layer north of the ramp (Figure 1).

Due to the elevated PCB and TEPH concentrations detected in the soil sample collected from western edge of the proposed ramp, soil from the excavation will now be segregated and stockpiled for sampling prior to relocation on-site or off-site disposal, whichever is appropriate. Soil will be stockpiled into approximately truck-load size (i.e., 10 cubic yards) piles and placed on visqueen, bermed and covered. The soil stockpiles will placed in the same area where the soil was planned to be spread and compacted (Figure 1).

Representative soil samples will be collected from each stockpile. These representative samples will be sent to the laboratory for PCB, TEPH, and arsenic analyses. In response to your request, a minimum of one sample for every 20 cubic yards will be analyzed. If analytical results indicate that PCB, TEPH and arsenic concentrations do not exceed 1.2 mg/kg, 1000 mg/kg, and 66 mg/kg, respectively, soils from this stockpile will be relocated and compacted on the Property as originally proposed. Final disposition of these soils will be consistent with recommendations outlined in the Risk Assessment currently under preparation for properties proposed for redevelopment by Chiron Corporation north of 53rd Street. If PCB, TEPH, or arsenic concentrations exceed these values in a given sample, the associated soils will be transported off-site and disposed of off-site at a Class I or Class II landfill, as appropriate.

After the excavation has been completed, the ramp will be paved pursuant to the provisions specified in EKI's letter dated 11 November 1994. The pavement will consist of three inches of asphalt on six inches of aggregate base placed on the subgrade. The side slopes of the ramp will also be paved in the same manor.

As requested, a copy of the contractor health and safety plan, dust control plan, and storm water runoff plan for the project were transmitted to you, Sum Arigala and Ravi Arulanantham on 6 December 1994.

Should you have any questions concerning this matter, please contact either of us.

Very truly yours,

ERLER & KALINOWSKI, INC.

Vera Nelson, P.E.
Project Manager

Stephen A, Tarantino, P.E.
Project Engineer

cc: Ric Notini, Chiron
Ravi Arulanantham, RWQCB
Sum Arigala, RWQCB

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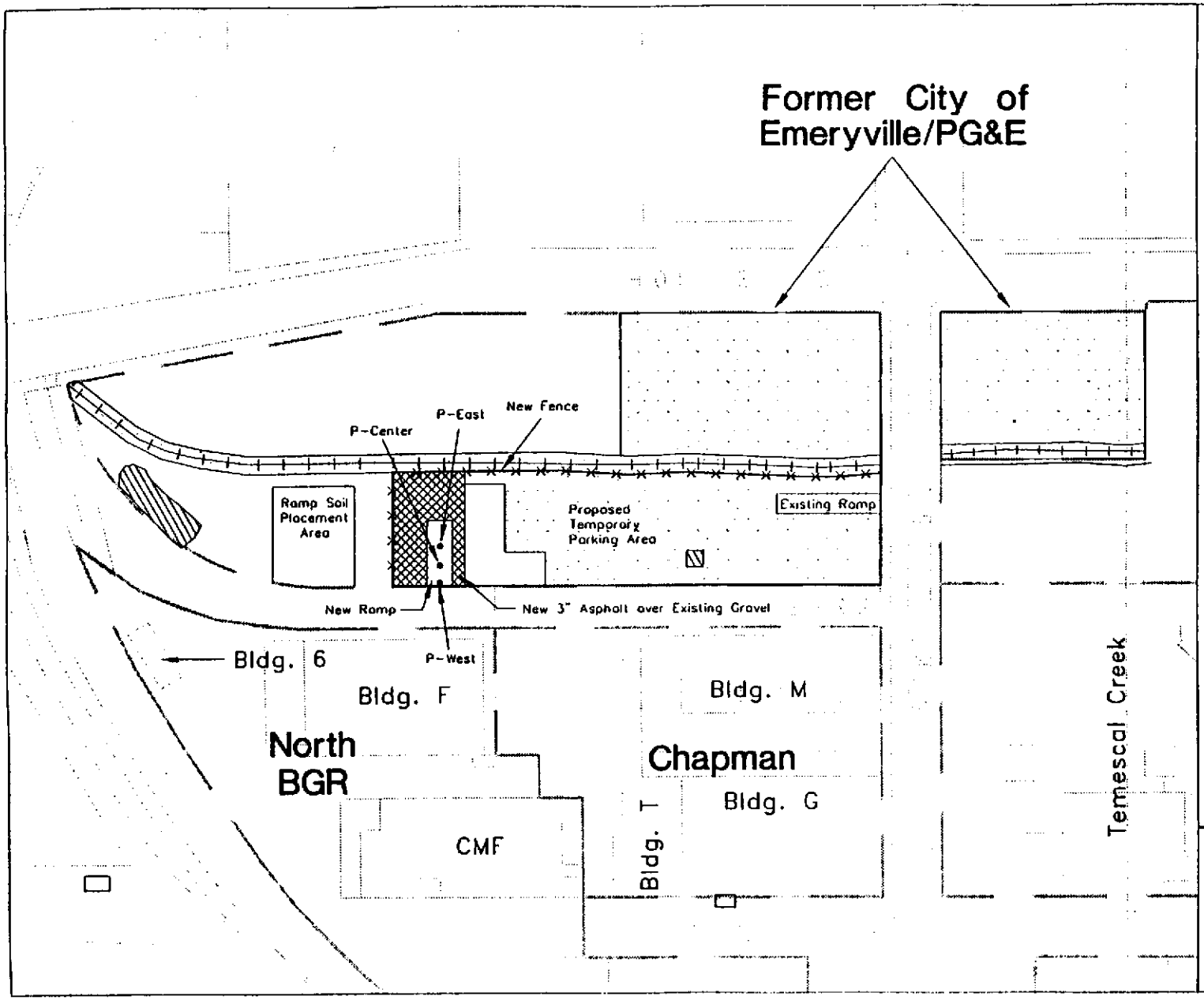
TABLE 1
SUMMARY OF SOIL SAMPLING RESULTS[1]
New Ramp Area of Interim Parking Lot
Chiron Corporation, Emeryville, California
(EKI 930028.03)

Sample ID	Sample Date	ARSENIC EPA 6010 (mg/kg)	PCBs EPA 8080 (mg/kg)	TEPH[2] EPA 8015 (mg/kg)	Sample Location
P-West	11/28/94	<5	890	1100	3 ft. east of west retaining wall, 1.5 ft. to 1.75 ft. bgs
P-Center	11/28/94	<5	1.1	140	20 ft. east of west retaining wall, 1 ft. to 1.25 ft. bgs
P-East	11/28/94	<5	<0.02	140	40 ft. east of west retaining wall, 0.5 ft. to 0.75 ft. bgs

Notes:
1. All samples were collected approximately 25 feet north of existing asphalt area on site. New ramp is planned to be constructed in this area.
2. The samples were analyzed for TEPH as diesel and reported as a non diesel mix.

PCBs Polychlorinated biphenyls
TEPH Total extractable petroleum hydrocarbons
bgs Below ground surface



N 74.70° W

0 100 200

(Approximate Scale in Feet)

LEGEND

- Former Area of Excavation by Oil
- Existing Concrete Area
- Property Boundary
- Location of Soil Sample taken 28 November 1994

Notes

1. All locations are approximate.

Erler & Kalinowski, Inc.

Ramp Soil Sample Locations

Chiron Corporation
Emeryville, CA
December 1994
EKI 930028.03
Figure 1

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP-20
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412812-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/20/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	27

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP-20
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412812-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	200000	N.D.
PCB-1221	800000	N.D.
PCB-1232	200000	N.D.
PCB-1242	200000	N.D.
PCB-1248	200000	N.D.
PCB-1254	200000	N.D.
PCB-1260	**200000**	**390000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/12/94
1730 South Amphlett, Ste 320	Sample Descript: SP-20	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/21/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/22/94
Attention: Steve Tarantino	Lab Number: 9412812-01	Reported: 12/22/94

QC Batch Number: GC122194OHBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	50	520
Chromatogram Pattern:		
Non Diesel Mix		C16-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412812-02

Sampled:
Received: 12/12/94
Extracted: 12/20/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/20/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/21/94
Attention: Steve Tarantino	Lab Number: 9412812-02	Reported: 12/22/94

QC Batch Number: GC122194OHBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412812-02

Sampled:
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	84

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412812

Received: 12/12/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412812 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD
Sample Conc.:	N.D.	0.98	44	44
Prepared Date:	12/20/94	12/20/94	12/20/94	12/20/94
Analyzed Date:	12/20/94	12/20/94	12/20/94	12/20/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	140
MS % Recovery:	97	96	86	96
Dup. Result:	96	96	140	140
MSD % Recov.:	96	95	96	96
RPD:	1.0	1.0	7.4	0.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412812 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412812 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1221940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412812-01-MSD
Sample Conc.:	520
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
Result:	250
MS % Recovery:	*
Dup. Result:	180
MSD % Recov.:	*
RPD:	*
RPD Limit:	0-50

LCS #:	LCS122194-LCS
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
LCS Result:	11
LCS % Recov.:	73

MS/MSD LCS Control Limits	38-122

*Matrix spike recovery was lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9412812

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page 1 of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/12/94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01 A	SP-20	Concrete	1 L. glass jar	8:45	(see instructions below)	Standard TAT
					EPA 8015 mod. TPH-diesel	Standard TAT
					EPA 8080 for PCB's only	
					Arsenic (EPA 6010)	

Special Instructions:

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/12/94	11:35	
[redacted]	[redacted]	[redacted]	[redacted] 12/12/94 1535

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/12/94
1730 South Amphlett, Ste 320	Sample Descript: SP 21/22 (Comp)	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/20/94
	Analysis Method: EPA 6010	Analyzed: 12/20/94
Attention: Steve Tarantino	Lab Number: 9412813-01	Reported: 12/27/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	23

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 21/22 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412813-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/21/94
Reported: 12/27/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20000	N.D.
PCB-1221	80000	N.D.
PCB-1232	20000	N.D.
PCB-1242	20000	N.D.
PCB-1248	20000	N.D.
PCB-1254	20000	N.D.
PCB-1260	20000	39000

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/12/94
1730 South Amphlett, Ste 320	Sample Descript: SP 21/22 (Comp)	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/21/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/22/94
Attention: Steve Tarantino	Lab Number: 9412813-01	Reported: 12/27/94

QC Batch Number: GC1221940HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	50	130
Chromatogram Pattern: Non Diesel Mix		C16-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/20/94
	Analysis Method: EPA 6010	Analyzed: 12/20/94
Attention: Steve Tarantino	Lab Number: 9412813-02	Reported: 12/27/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412813-02

Sampled:
Received: 12/12/94
Extracted: 12/21/94
Analyzed: 12/21/94
Reported: 12/27/94

QC Batch Number: GC1221940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412813-02

Sampled:
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/20/94
Reported: 12/27/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	84

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412813 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD
Sample Conc.:	N.D.	0.98	44	44
Prepared Date:	12/20/94	12/20/94	12/20/94	12/20/94
Analyzed Date:	12/20/94	12/20/94	12/20/94	12/20/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	140
MS % Recovery:	97	96	86	96
Dup. Result:	96	96	140	140
MSD % Recov.:	96	95	96	96
RPD:	1.0	1.0	7.4	0.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412813 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
an Mateo, CA 94402
ttention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron

Lab Proj. ID: 9412813

Received: 12/12/94

Reported: 12/27/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412813 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1221940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412812-01-MSD
Sample Conc.:	520
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
Result:	250
MS % Recovery:	*
Dup. Result:	180
MSD % Recov.:	*
RPD:	*
RPD Limit:	0-50

LCS #:	LCS122194-LCS
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
LCS Result:	11
LCS % Recov.:	73

MS/MSD LCS Control Limits	38-122

*Matrix spike recovery was lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9412813

2°C

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Analytical Laboratory: Sequoia Analytical

Project Number: EKI 930028.03

Date Sampled: 12/12/94

Project Name: Chiron

Sampled By: Ben B. Hsieh

Source of Samples: ramp excavation, PG&E property

Report Results To: Steve Tarantino

Location: Emeryville, CA

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP-21	Soil	1 L. glass jar	8:57	(see instructions below)	Standard TAT
02B	SP-22	Soil	1 L. glass jar	9:21		
					EPA 8015 mod. TPH - diesel	Standard TAT
					EPA 8080 for PCB's only	
					Arsenic (EPA 6010)	

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/12/94	11:35	
[redacted]	[redacted]	[redacted]	[redacted] David Williams Sequoia 11:35 12/12/94

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 23/24 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412808-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/20/94
Analyzed: 12/20/94
Reported: 12/31/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	15

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 23/24 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412808-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/20/94
Reported: 12/31/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20000	N.D.
PCB-1221	80000	N.D.
PCB-1232	20000	N.D.
PCB-1242	20000	N.D.
PCB-1248	20000	N.D.
PCB-1254	20000	N.D.
PCB-1260	20000	35000

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 23/24 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412808-01

Sampled: 12/12/94
Received: 12/12/94
Extracted: 12/21/94
Analyzed: 12/22/94
Reported: 12/31/94

QC Batch Number: GC1221940HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	50	120
Chromatogram Pattern:		
Non Diesel Mix		C16-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/12/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/21/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/21/94
Attention: Steve Tarantino	Lab Number: 9412808-02	Reported: 12/31/94

QC Batch Number: GC1221940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steve Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412808-02

Sampled:
Received: 12/12/94
Extracted: 12/16/94
Analyzed: 12/20/94
Reported: 12/31/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	84

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/12/94
an Mateo, CA 94402	Matrix: SOLID	Extracted: 12/20/94
	Analysis Method: EPA 6010	Analyzed: 12/20/94
Attention: Steve Tarantino	Lab Number: 9412808-02	Reported: 12/31/94

QC Batch Number: ME1220946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Erler & Kalinowski, Inc. 730 South Amphlett, Ste 320 an Mateo, CA 94402 ttention: Steve Tarantino	Client Proj. ID: 930028.03, Chiron Lab Proj. ID: 9412808	Received: 12/12/94 Reported: 12/31/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

E en Manning
P ject Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412808 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC	ME1220946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD	9412812-01-MSD
Sample Conc.:	N.D.	0.98	44	44
Prepared Date:	12/20/94	12/20/94	12/20/94	12/20/94
Analyzed Date:	12/20/94	12/20/94	12/20/94	12/20/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	140
MS % Recovery:	97	96	86	96
Dup. Result:	96	96	140	140
MSD % Recov.:	96	95	96	96
RPD:	1.0	1.0	7.4	0.0
RPD Limit:	0-30	0-30	0-30	0-30
LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412808 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-20	
Attention: Steve Tarrantino	Work Order #:	9412808 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1221940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412812-01-MSD
Sample Conc.:	520
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
Result:	250
MS % Recovery:	*
Dup. Result:	180
MSD % Recov.:	*
RPD:	*
RPD Limit:	0-50

LCS #:	LCS122194-LCS
Prepared Date:	12/21/94
Analyzed Date:	12/21/94
Instrument I.D.#:	GCHP4A
Conc. Spiked:	15 mg/Kg
LCS Result:	11
LCS % Recov.:	73

MS/MSD LCS Control Limits	38-122

*Matrix spike recovery was lost due to sample dilution.

Please Note:
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SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9412808

2°C

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/12/94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01 A	SP-23	Soil	1 L. glass jar	9:35	(see instructions below)	Standard TAT
↓ B	SP-24	Soil	1 L. glass jar	9:10	↓	↓
					EPA 8015 mod. TPH-diesel	Standard TAT
					EPA 8080 for PCB's only	
					Arsenic (EPA 6010)	↓

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/12/94	11:35	/
			[redacted] Sequoia 12/12/94

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412594 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412594 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9412594

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/7/94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 16	Soil	1 L. glass jar	13:40	(see instructions below)	Standard TAT
↓ B	SP- 19	Soil	1 L. glass jar	14:50		↓
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5-day TAT~~
					EPA 8080 for PCB's only	~~5-day TAT~~
					Arsenic (EPA 6010)	~~5-day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	↓	↓	
	↓	↓	Dij ——— / David Lawrence / Sequoia

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 17/18 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412596-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 17/18 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412596-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**19000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 17/18 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412596-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	230
Chromatogram Pattern: Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412596-02

Sampled:
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412596-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
n Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412596-02

Sampled:
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412596

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412596 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412596 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412596 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. All
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

9412594

Erler & Kalinowski, Inc.

Analytical Laboratory: Sequoia Analytical

Project Number: EKI 930028.03 Page of

Date Sampled: 12/7/94

Project Name: Chiron

Sampled By: Ben B. Hsieh

Source of Samples: ramp excavation, PG&E property

Report Results To: Steve Tarantino

Location: Emeryville, CA

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 17	Soil	1 L. glass jar	14:10	(see instructions below)	Standard TAT
1B	SP- 18	Soil	1 L. glass jar	14:30		
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	"	"	
	"	"	David Lawrence / Sequoia

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412597 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 80680
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron

Lab Proj. ID: 9412597

Received: 12/07/94

Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412597 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550

Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST 9412597

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/7/94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 12	Soil	1 L. glass jar	11:55	(see instructions below)	Standard TAT
1B	SP- 14	Soil	1 L. glass jar	12:40		↓
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	"	"	
	"	"	David Lawrence/Sequoia

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 13/15 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412595-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	36

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 13/15 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412595-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**21000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 13/15 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412595-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	330
Chromatogram Pattern:		
Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412595-02

Sampled:
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

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Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412595-02	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/15/94
	Analysis Method: EPA 6010	Analyzed: 12/15/94
Attention: Steven Tarantino	Lab Number: 9412595-02	Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412595

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost in this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412595 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412595 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412595 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9412595

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12 / 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01 A	SP- 13	Soil	1L. glass jar	12:25	(see instructions below)	Standard TAT
02 B	SP- 15	Soil	1L. glass jar	12:50		↓
	SP-	Soil	1L. glass jar			
	SP-	Soil	1L. glass jar			
	SP-	Soil	1L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	/
	"	"	
	"	"	David Lawrence / Sequoia

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 16/19 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/15/94
	Analysis Method: EPA 6010	Analyzed: 12/15/94
Attention: Steven Tarantino	Lab Number: 9412594-01	Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	10

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 16/19 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412594-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**15000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 16/19 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412594-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	**20**	**450**
Chromatogram Pattern:		
Non Diesel Mix		**C14-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412594-02	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412594-02	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
730 South Amphlett, Ste 320
an Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412594-02

Sampled:
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412594

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412594 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 8/9 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412591-01	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20000	N.D.
PCB-1221	80000	N.D.
PCB-1232	20000	N.D.
PCB-1242	20000	N.D.
PCB-1248	20000	N.D.
PCB-1254	20000	N.D.
PCB-1260	**20000**	**150000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 8/9 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412591-01	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	**20**	**320**
Chromatogram Pattern:		
Non Diesel Mix		**C14-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412591-02	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 8/9 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/15/94
	Analysis Method: EPA 6010	Analyzed: 12/15/94
Attention: Steven Tarantino	Lab Number: 9412591-01	Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412591-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412591-02

Sampled:
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412591

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412591 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	84

MS/MSD
LCS
Control Limits

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412591 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	CS121594-LC	CS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

Please Note:
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SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412591 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	84

MS/MSD
LCS
Control Limits

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412591 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550

Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9412591

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/ 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01 A	SP- 8	Soil	1 L. glass jar	10:50	(see instructions below)	Standard TAT ↓
02 B	SP- 9	Soil	1 L. glass jar	11:10		
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	↓	↓	
	↓	↓	D J m / David Lawrence /Sequoia

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 10/11 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412590-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/13/94
Analyzed: 12/13/94
Reported: 12/22/94

QC Batch Number: ME1213946010MDB
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 10/11 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412590-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**21000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 10/11 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412590-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	260
Chromatogram Pattern:		
Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412590-02

Sampled:
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412590-02	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412590-02

Sampled:
Received: 12/07/94
Extracted: 12/13/94
Analyzed: 12/13/94
Reported: 12/22/94

QC Batch Number: ME1213946010MDB
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412590

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP 10/11 (Comp)	
Attention: Steve Tarrantino	Work Order #:	9412590 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1213946010MDB	ME1213946010MDB	ME1213946010MDB	ME1213946010MDB
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412590-01-MSD	9412590-01-MSD	9412590-01-MSD	9412590-01-MSD
Sample Conc.:	N.D.	3.5	40	38
Prepared Date:	12/13/94	12/13/94	12/13/94	12/13/94
Analyzed Date:	12/13/94	12/13/94	12/13/94	12/13/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	110	100	140	140
MS % Recovery:	110	97	100	100
Dup. Result:	110	100	140	140
MSD % Recov.:	110	97	100	100
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412590 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

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SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412590 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9412590

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12 / 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 10	Soil	1 L. glass jar	11:25	(see instructions below)	Standard TAT
B	SP- 11	Soil	1 L. glass jar	11:40		↓
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	↓	↓	
	↓	↓	David Lawrence / Sequoia

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 12/14 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412597-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	15

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 12/14 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412597-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**12000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 12/14 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412597-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	**20**	**300**
Chromatogram Pattern:		
Non Diesel Mix		**C14-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412597-02	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412597-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
an Mateo, CA 94402	Matrix: SOLID	Extracted: 12/15/94
	Analysis Method: EPA 6010	Analyzed: 12/15/94
Attention: Steven Tarantino	Lab Number: 9412597-02	Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412597 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30
LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 1/2 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412598-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	23

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 1/2 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412598-01	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	200000	N.D.
PCB-1221	800000	N.D.
PCB-1232	200000	N.D.
PCB-1242	200000	N.D.
PCB-1248	200000	N.D.
PCB-1254	200000	N.D.
PCB-1260	**200000**	**570000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 1/2 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412598-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	460
Chromatogram Pattern:		
Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412598-02	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412598-02	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/15/94
	Analysis Method: EPA 6010	Analyzed: 12/15/94
Attention: Steven Tarantino	Lab Number: 9412598-02	Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412598

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

9412598

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12 / 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 1	Soil	1 L. glass jar	7:45	(see instructions below)	Standard TAT
B	SP- 2	Soil	1 L. glass jar	8:15		
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5-day TAT~~
					EPA 8080 for PCB's only	~~5-day TAT~~
					Arsenic (EPA 6010)	~~5-day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	"	"	
	"	"	D. Lawrence /David Lawrence /Sequoia

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412598 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110

MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412598 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412598 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP-3
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412592-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP-3	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412592-01	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20000	N.D.
PCB-1221	80000	N.D.
PCB-1232	20000	N.D.
PCB-1242	20000	N.D.
PCB-1248	20000	N.D.
PCB-1254	20000	N.D.
PCB-1260	**20000**	**210000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP-3	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412592-01	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	420
Chromatogram Pattern:		
Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412592-02	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412592-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412592-02

Sampled:
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412592

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412592 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC	ME1215946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD	9412592-01-MSD
Sample Conc.:	N.D.	0.91	35	39
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	97	97	130	130
MS % Recovery:	97	96	95	91
Dup. Result:	97	97	110	120
MSD % Recov.:	97	96	75	81
RPD:	0.0	0.0	17	8.0
RPD Limit:	100	100	0-30	0-30

LCS #:	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS	LCS121594-LCS
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	100	100	110
LCS % Recov.:	100	100	100	110

MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412592 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412592 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412599 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Steve Tarrantino	Work Order #:	9412599 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 Mod
Prep. Method:	EPA 3550

Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Ben Hsieh	Work Order #:	9412593 01	Reported: Jan 5, 1995

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	PCB 1260
QC Batch#:	GC1212940PCBEXA
Analy. Method:	EPA 8080
Prep. Method:	EPA 3550
Analyst:	A. Savva
MS/MSD #:	9412592-01-MSD
Sample Conc.:	210000
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
Result:	*
MS % Recovery:	-
Dup. Result:	*
MSD % Recov.:	-
RPD:	-
RPD Limit:	0-50

LCS #:	LCS121294-LCS
Prepared Date:	12/12/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP10
Conc. Spiked:	83 µg/Kg
LCS Result:	78
LCS % Recov.:	94

MS/MSD LCS Control Limits	30-150

*Matrix spike recovery lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP-3	
Attention: Ben Hsieh	Work Order #:	9412593 01	Reported: Jan 5, 1995

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1216940HBPEXA
Analy. Method:	EPA 8015 M
Prep. Method:	EPA 3550
Analyst:	B. Ali
MS/MSD #:	9412592-01-MSD
Sample Conc.:	420
Prepared Date:	12/16/94
Analyzed Date:	12/20/94
Instrument I.D.#:	GCHP5A
Conc. Spiked:	15 mg/Kg
Result:	450
MS % Recovery:	200
Dup. Result:	480
MSD % Recov.:	400
RPD:	6.5
RPD Limit:	0-50

LCS #:	LCS121694-LCS
Prepared Date:	12/16/94
Analyzed Date:	12/18/94
Instrument I.D.#:	GCHP5B
Conc. Spiked:	15 mg/Kg
LCS Result:	13
LCS % Recov.:	87

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

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CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST 9412592

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12/7/94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 3	Soil	1 L. glass jar	8:30	(see instructions below)	Standard TAT
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
						Standard TAT
					EPA 8015 mod TPH-diesel	~~5 day~~ TAT
					EPA 8080 for PCB's only	~~5 day~~ TAT
					Arsenic (EPA 6010)	~~5 day~~ TAT

Special Instructions: ~~Make a composite from a portion of each of the above samples.~~
~~Analyze the composite by the above analyses.~~
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	↓	↓	
	↓	↓	David Lawrence / Sequoia

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 4/5 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412599-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/16/94
Reported: 12/22/94

QC Batch Number: ME1212946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	38

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1330 South Amphlett, Ste 320	Sample Descript: SP 4/5 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412599-01	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	1000000	N.D.
PCB-1221	4000000	N.D.
PCB-1232	1000000	N.D.
PCB-1242	1000000	N.D.
PCB-1248	1000000	N.D.
PCB-1254	1000000	N.D.
PCB-1260	**1000000**	**5400000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled: 12/07/94
1730 South Amphlett, Ste 320	Sample Descript: SP 4/5 (Comp)	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412599-01	Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	100	1900
Chromatogram Pattern:		
Non Diesel Mix		C16-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
an Mateo, CA 94402	Matrix: SOLID	Extracted: 12/16/94
	Analysis Method: EPA 8015 Mod	Analyzed: 12/19/94
Attention: Steven Tarantino	Lab Number: 9412599-02	Reported: 12/22/94

Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930028.03, Chiron	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 12/07/94
San Mateo, CA 94402	Matrix: SOLID	Extracted: 12/12/94
	Analysis Method: EPA 8080	Analyzed: 12/18/94
Attention: Steven Tarantino	Lab Number: 9412599-02	Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412599-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/12/94
Reported: 12/22/94

QC Batch Number: ME1212946010MDC
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412599

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery was lost for this analysis, due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

Sequoia Analytical

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 6/7 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412593-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDD
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	25

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST 9412599

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12 / 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01 A	SP- 4	Soil	1 L. glass jar	8:45	(see instructions below)	Standard TAT ↓
1 B	SP- 5	Soil	1 L. glass jar	9:45		
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5 day TAT~~
					Arsenic (EPA 6010)	~~5 day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
			David Lawrence / Sequoia

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP 4/5 (Comp)	
Attention: Steve Tarrantino	Work Order #:	9412599 01	Reported: Dec 28, 1994

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1212946010MDC	ME1212946010MDC	ME1212946010MDC	ME1212946010MDC
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412599-01-MSD	9412599-01-MSD	9412599-01-MSD	9412599-01-MSD
Sample Conc.:	N.D.	2.9	42	40
Prepared Date:	12/12/94	12/12/94	12/12/94	12/12/94
Analyzed Date:	12/12/94	12/12/94	12/12/94	12/12/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	100	96	140	140
MS % Recovery:	100	93	98	100
Dup. Result:	100	96	150	140
MSD % Recov.:	100	93	108	100
RPD:	0.0	0.0	6.9	0.0
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 6/7 (Comp)
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412593-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/20/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDD
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	25

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 6/7 (Comp)
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412593-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	2000	N.D.
PCB-1221	8000	N.D.
PCB-1232	2000	N.D.
PCB-1242	2000	N.D.
PCB-1248	2000	N.D.
PCB-1254	2000	N.D.
PCB-1260	**2000**	**15000**

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: SP 6/7 (Comp)
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412593-01

Sampled: 12/07/94
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	20	150
Chromatogram Pattern:		
Non Diesel Mix		C14-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8015 Mod
Lab Number: 9412593-02

Sampled:
Received: 12/07/94
Extracted: 12/16/94
Analyzed: 12/19/94
Reported: 12/22/94

QC Batch Number: GC1216940HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 8080
Lab Number: 9412593-02

Sampled:
Received: 12/07/94
Extracted: 12/12/94
Analyzed: 12/18/94
Reported: 12/22/94

QC Batch Number: GC1212940PCBEXA
Instrument ID: GCHP10

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	30	150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Sample Descript: Method Blank
Matrix: SOLID
Analysis Method: EPA 6010
Lab Number: 9412593-02

Sampled:
Received: 12/07/94
Extracted: 12/15/94
Analyzed: 12/15/94
Reported: 12/22/94

QC Batch Number: ME1215946010MDD
Instrument ID: MTJA2

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Arsenic, As	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Steven Tarantino

Client Proj. ID: 930028.03, Chiron
Lab Proj. ID: 9412593

Received: 12/07/94
Reported: 12/22/94

LABORATORY NARRATIVE

Q - Surrogate recovery for this analysis was lost due to sample dilution.

SEQUOIA ANALYTICAL

Eileen Manning
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930028.03, Chiron	
1730 So. Amphlett Blvd., Suite 320	Matrix:	SOLID	
San Mateo, CA 94402	Sample Descript:	SP 6/7 (Comp)	
Attention: Ben Hsieh	Work Order #:	9412593 01	Reported: Jan 5, 1995

COC #:

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1215946010MDD	ME1215946010MDD	ME1215946010MDD	ME1215946010MDD
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	9412593-01-MSD	9412593-01-MSD	9412593-01-MSD	9412593-01-MSD
Sample Conc.:	0.50	0.70	37	48
Prepared Date:	12/15/94	12/15/94	12/15/94	12/15/94
Analyzed Date:	12/15/94	12/15/94	12/15/94	12/15/94
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	98	98	130	140
MS % Recovery:	98	97	93	92
Dup. Result:	97	96	130	140
MSD % Recov.:	97	95	93	92
RPD:	1.0	2.1	0.0	0.0
RPD Limit:	0-30	0-50	0-50	0-50

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL

Eileen A. Manning
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9415903

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Erler & Kalinowski, Inc.

Project Number: EKI 930028.03 Page of

Project Name: Chiron

Source of Samples: ramp excavation, PG&E property

Location: Emeryville, CA

Analytical Laboratory: Sequoia Analytical

Date Sampled: 12 / 7 / 94

Sampled By: Ben B. Hsieh

Report Results To: Steve Tarantino

Phone Number: 415) 578-1172

RECEIVED

Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
01A	SP- 6	Soil	1 L. glass jar	10:00	(see instructions below)	Standard TAT
↓B	SP- 7	Soil	1 L. glass jar	10:30		↓
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
	SP-	Soil	1 L. glass jar			
					EPA 8015 mod TPH-diesel	~~5 day TAT~~
					EPA 8080 for PCB's only	~~5-day TAT~~
					Arsenic (EPA 6010)	~~5-day TAT~~

Special Instructions: Make a composite from a portion of each of the above samples.
Analyze the composite by the above analyses.
Retain original samples for possible additional analyses.

6°C

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation
Ben Hsieh / Ben Hsieh /EKI	12/7/94	18:53	
	↓	↓	
			[signature] / David Lawrence / Sequoia