Response to General Notice Letter 104(E)

San Fernando Valley
North Hollywood Superfund Site
Volume III
(Appendices H-L)

May 24, 2006

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Appendix H

Appendix H
Solid Waste Assessment Test (SWAT) Report- Air Quality, Hewitt Landfill (Laurel Canyon Facility) (Kleinfelder, 1989)

CDM

KLEINFELDER

AIR QUALITY
SOLID WASTE ASSESSMENT TEST REPORT
FOR THE
HEWITT LANDFILL

Submitted to

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

As required by

CALIFORNIA HEALTH AND SAFETY CODE SECTION 41805.5

Prepared by

MANDEVILLE & ASSOCIATES,
A DIVISION OF KLEINFELDER, INC.
526 HOFGAARDEN STREET
CITY OF INDUSTRY, CALIFORNIA 91744

On behalf of

CALMAT PROPERTIES, INC.
3200 SAN FERNANDO ROAD
LOS ANGELES, CALIFORNIA 90065

DECEMBER 1988

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SECTION 1

SUMMARY OF TEST RESULTS
HEWITT LANDFILL

At the Hewitt Landfill, the air quality solid waste assessment test (SWAT) field program consisted of ambient air sampling, landfill gas testing, and integrated surface sampling. Ambient air sampling was conducted over three separate days. Because vinyl chloride was detected in the landfill gas, the air samples were analyzed for this constituent only. Vinyl chloride was not detected in any of the 15 ambient air samples submitted for analysis.

Gas stream characterization consisted of internal landfill gas testing and integrated surface sampling. Landfill gas collected by the existing gas control system was sampled on two occasions from the inlet to the blower/ flare station, and the samples were analyzed for fixed gases and Attachment 1 compounds. Of the ten constituents of concern, five were measured above detection limits in both samples (vinyl chloride, benzene, perchloroethylene, trichloroethylene, and chloroform). The five remaining compounds were not detected in either gas sample. Methane concentrations in the gas were reported by the laboratory at 22.2 percent and 22.6 percent by volume.

In addition, two integrated samples were collected immediately above the surface of the approved 50,000-square-foot grids. The samples were tested for the presence of total organic compounds (TOCs), measured as methane. TOC concentrations of eight parts per million (ppm) and 22 ppm were measured in the surface samples.

Gas migration testing of the existing perimeter probes currently is performed on a weekly basis. Test results for the preceding year were submitted in the SWAT Proposal. Subsequent probe monitoring data are included in Section 4E.

DISPO[illegible] SITE REPORT

Disposal Site Name: Hewitt Landfill

Date Sampled: 11/9 - 11/10/88
Date Analyzed: 11/11/88

Location: Latitude 34° 12′ 30″ Longitude 118° 24′

POPULATION Within 2 to 3 miles 25,000

DAY 1

AMBIENT AIR SAMPLING
Concentrations, ppb

COMPOUND	Laboratory Detection Limits, ppb	(Sample No.)	SITE 1 24-hr Upwind (83168-3)	SITE 2 24-hr Downwind (83168-4)	SITE 3 <24-hr Drainage (83168-5)	Collocated <24-hr Drainage SITE 4A Primary (83168-6)	SITE 4B Duplicate (83168-7)
Vinyl Chloride (chloroethene)	2		ND	ND	ND	ND	ND
Benzene	2						
Ethylene Dibromide (1,2-dibromoethane)	0.5						
Ethylene Dichloride (1,2-dichloroethane)	0.2						
Methylene Chloride (dichloromethane)	1						
Perchloroethylene (tetrachloroethene)	0.2						
Carbon Tetrachloride (tetrachloromethane)	0.2						
Methyl Chloroform (1,1,1-trichloroethane)	0.5						
Trichloroethylene	0.6						
Chloroform (trichloromethane)	0.8						

Summary of conditions during testing:

Average wind speed: 1.55 mph
Prevailing onshore wind direction: southeast to south-southeast (9 a.m. to 4 p.m.)
Prevailing offshore (drainage) wind direction: northwest to north-northwest (10 p.m. to 8 a.m.)

ND = Not detected at or above specified minimum detection limit.
The gas collection system was operating at the time of sampling.

DISPOS... SITE REPORT

Disposal Site Name: Hewitt Landfill

Date Sampled: 11/15 - 11/16/88
Date Analyzed: 11/17/88

Location: Latitude 34° 12′ 30″ Longitude 118° 24′

POPULATION Within 2 to 3 miles 25,000

DAY 2

AMBIENT AIR SAMPLING
Concentrations, ppb

COMPOUND	Laboratory Detection Limits, ppb	(Sample No.)	SITE 1 24-hr Upwind (83228-5)	SITE 2 24-hr Downwind (83228-6)	SITE 3 <24-hr Drainage (83228-7)	Collocated <24-hr Drainage SITE 4A Primary (83228-8)	Collocated <24-hr Drainage SITE 4B Duplicate (83228-9)
Vinyl Chloride (chloroethene)	2		ND	ND	ND	ND	ND
Benzene	2						
Ethylene Dibromide (1,2-dibromoethane)	0.5						
Ethylene Dichloride (1,2-dichloroethane)	0.2						
Methylene Chloride (dichloromethane)	1						
Perchloroethylene (tetrachloroethene)	0.2						
Carbon Tetrachloride (tetrachloromethane)	0.2						
Methyl Chloroform (1,1,1-trichloroethane)	0.5						
Trichloroethylene	0.6						
Chloroform (trichloromethane)	0.8						

Summary of conditions during testing:

Average wind speed: 1.55 mph
Prevailing onshore wind direction: southeast to south-southeast (9 a.m. to 4 p.m.)
Prevailing offshore (drainage) wind direction: northwest to north-northwest (10 p.m. to 8 a.m.)

ND = Not detected at or above specified minimum detection limit.
The gas collection system was operating at the ti... of sampling.

DISPO... SITE REPORT

Disposal Site Name: Hewitt Landfill

Date Sampled: 11/16 - 11/17/88
Date Analyzed: 11/17/88

Location: Latitude 34° 12′ 30″ Longitude 118° 24′

POPULATION Within 2 to 3 miles 25,000

DAY 3

AMBIENT AIR SAMPLING
Concentrations, ppb

COMPOUND	Laboratory Detection Limits, ppb	SITE 1 24-hr Upwind	SITE 2 24-hr Downwind	SITE 3 <24-hr Drainage	Collocated <24-hr Drainage SITE 4A Primary	SITE 4B Duplicate
(Sample No.)		(83228-10)	(83228-11)	(83228-12)	(83228-13)	(83228-14)
Vinyl Chloride (chloroethene)	2	ND	ND	ND	ND	ND
Benzene	2					
Ethylene Dibromide (1,2-dibromoethane)	0.5					
Ethylene Dichloride (1,2-dichloroethane)	0.2					
Methylene Chloride (dichloromethane)	1					
Perchloroethylene (tetrachloroethene)	0.2					
Carbon Tetrachloride (tetrachloromethane)	0.2					
Methyl Chloroform (1,1,1-trichloroethane)	0.5					
Trichloroethylene	0.6					
Chloroform (trichloromethane)	0.8					

Summary of conditions during testing:

Average wind speed: 1.55 mph
Prevailing onshore wind direction: southeast to south-southeast (9 a.m. to 4 p.m.)
Prevailing offshore (drainage) wind direction: northwest to north-northwest (10 p.m. to 8 a.m.)

ND = Not detected at or above specified minimum detection limit.
The gas collection system was operating at the time of sampling.

LANDFILL GAS TESTING
Concentrations, ppb

Disposal Site: Hewitt Landfill

Date Sampled: 10/20 - 10/21/88
Date Analyzed: 10/20 - 10/21/88

COMPOUND	Laboratory Detection Limits, ppb	(Sample No.)	LFG 1 (82948-1)	LFG 2 (82958-1)
Vinyl Chloride (chloroethene)	500		750	730
Benzene	500		4300	3360
Ethylene Dibromide (1,2-dibromoethane)	1		ND	ND
Ethylene Dichloride (1,2-dichloroethane)	20		ND	ND
Methylene Chloride (dichloromethane)	60		ND	ND
Perchloroethylene (tetrachloroethene)	10		720	446
Carbon Tetrachloride (tetrachloromethane)	5		ND	ND
Methyl Chloroform (1,1,1-trichloroethane)	10		ND	ND
Trichloroethylene	10		407	448
Chloroform (trichloromethane)	2		6.75	6.19
Methane	0.1%		22.2	22.6

ND = Not detected at or above specified minimum detection limit
The gas collection system was operating at the time of sampling.

INTEGRATED SURFACE SAMPLING
Concentrations, ppm

Disposal Site Name: Hewitt Landfill

Date Sampled: 10/20/88
Date Analyzed: 10/20/88

COMPOUND	Intrument Detection Limits, ppm	Grid 1	Grid 2
Vinyl Chloride (chloroethene)			
Benzene			
Ethylene Dibromide (1,2-dibromoethane)			
Ethylene Dichloloride (1,2-dichloroethane)			
Methylene Chloride (dichloromethane)			
Perchloroethylene (tetrachloroethene)			
Carbon Tetrachloride (tetrachloromethane)			
Methyl Chloroform (1,1,1-trichloroethane)			
Trichloroethylene			
Chloroform (trichloromethane)			
Methane	0.2 - 1000	22	8

Summary of conditions during testing:

Overcast
Barometric pressure: 29.99 in. Hg
Time: 7:40 - 8:13 a.m.
Wind speed: 1 - 3 mph

The gas collection system was operating at the time of sampling.

SECTION 2

SECTION 2

PROPOSAL PLAN DESCRIPTION

SECTION 2

DISPOSAL SITE DESCRIPTION
HEWITT LANDFILL

OPERATIONAL HISTORY

The inactive Hewitt Landfill is owned by CalMat Properties, Inc. The property comprises a total of 63 acres, with the landfill occupying most of that area. Before landfilling operations began in the early 1960s, the site was used for mining sand and gravel. Once the permitted quantity of material had been excavated, the resulting pit was filled with municipal and commercial waste and inert construction debris. The dates of landfill operation were from approximately 1963 through 1975.

In recent years, portions of the landfill surface have been used for commercial storage purposes. Along the eastern side of the landfill are shipping containers which have been specially modified for public storage use. Other sections of the site are used for storage of vehicles, discarded motor homes, and automobile salvage. Presently it is estimated that at least eight to 25 feet of soil cover exists over all portions of the refuse. In addition, certain sections are paved with asphalt.

SURROUNDING LAND USE

The landfill is located at 7245 Laurel Canyon Boulevard in the North Hollywood area of Los Angeles. The site is bounded by Saticoy Street on the north, Laurel Canyon Boulevard on the east, the Southern Pacific Railroad Company right of way on the south, and Whitsett Avenue and the Hollywood Freeway on the west.

Land use within one mile of the site is a mixture of agricultural, residential, and industrial-commercial. A residential tract is located below Saticoy Street along the east side of the northerly trending finger of the landfill, and along the west half of the northern perimeter of the main body of the landfill. Row crops have been grown between this

residential area and the small light industrial area along Laurel Canyon Boulevard to the east. Railroad tracks lie along the southern perimeter, and the west side is bordered by light industrial development across the Hollywood Freeway. Land use within one mile of the site is depicted on the regional location map in Exhibit 2-1.

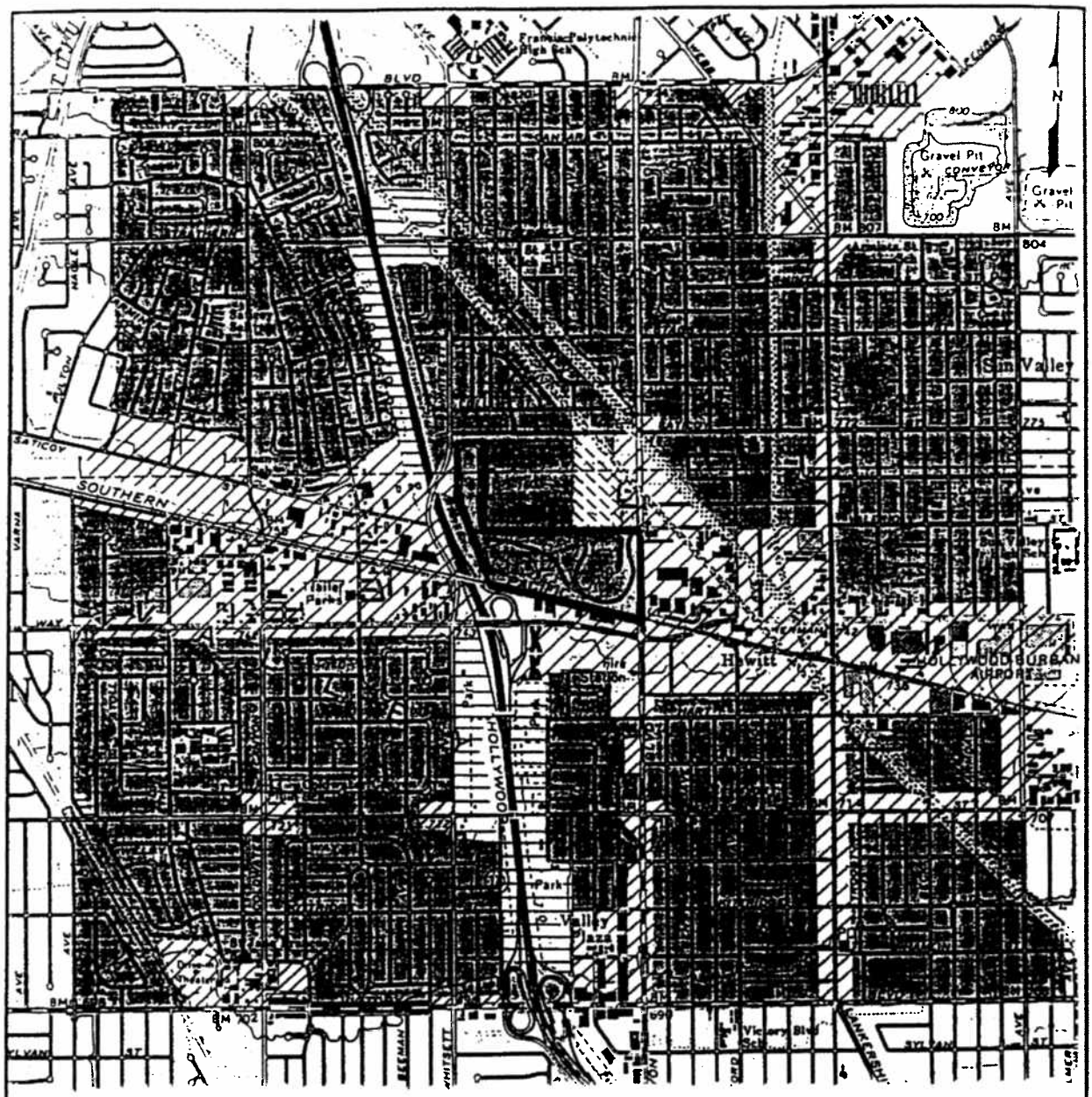
GAS MIGRATION CONTROL AND MONITORING SYSTEMS

In 1977, a gas collection system and flare station were installed. Over the succeeding years, this initial system has been modified, expanded, and relocated in order to control gas migration. The current system includes approximately 60 wells installed to depths ranging from 35 feet to 90 feet. The layout of the collection system is shown on the SWAT site map in Section 3.

To detect the existence of off-site gas migration, a monitoring system consisting of 47 single and multiple-depth probes has been installed at the perimeter of the landfill. Probes are monitored on a weekly basis. The locations of the probes are shown on the SWAT site map in Section 3. Probe depths are delineated in Table 2-1.

EXHIBIT 2-1

REGIONAL SITE LOCATION MAP
HEWITT LANDFILL



EXPLANATION

- RECREATIONAL
- COMERCIAL AND INDUSTRIAL
- AGRICULTURE
- DWP RIGHT OF WAY
- RESIDENTIAL

REFERENCE :
BASEMAP FROM U.S. GEOLOGICAL SURVEY 7½ MINUTE VAN NUYS QUADRANGLE (1972) .

0 2000 4000
FEET

Source: Law Environmental, Inc., June 1988

TABLE 2-1 PERIMETER MONITORING PROBE DEPTHS HEWITT LANDFILL

Probe	Casing Depth (ft)				
	0	A	B	C	D
P1	5	20	-	-	-
P2	5	20	-	-	-
P3	-	-	30	-	-
P4	5	20	-	-	-
P5	5	20	-	-	-
P6	-	-	30	60	90
P7	5	20	-	-	-
P8	-	20	-	-	-
P9	5	-	-	-	-
P10	5	20	-	-	-
P11	-	-	30	-	-
P12	-	-	30	-	-
P13	-	20	30	-	-
P13X[a]					
P14	-	-	30	60	-
P15	-	20	-	-	-
P16	-	20	30	-	-
P16X[a]					
P17	-	20	-	-	-
P18	-	-	30	-	-
P19	5	-	-	-	-
P20	5	20	-	-	-
P22	5	20	-	-	-
P23	5	-	-	-	-
P24	5	20	-	-	-
P25	5	20	-	-	-
P26	5	20	-	-	-

(Continued)

[a] Depth information unavailable.

TABLE 2-1 PERIMETER MONITORING PROBE DEPTHS (Continued)
HEWITT LANDFILL

Probe	Casing Depth (ft)				
	0	A	B	C	D
P27	5	20	-	-	-
P28	5	-	-	-	-
P29	-	-	30	60	-
P30	-	20	-	-	-
P31	5	20	-	-	-
P32	5	20	-	-	-
P33	5	-	-	-	-
P34	5	-	-	-	-
P35	5	-	-	-	-
P36	-	-	30	-	-
P37	5	-	-	-	-
P38	5	-	30	-	-
P39	5	-	-	-	-
P40	5	-	-	-	-
P41	5	-	-	-	-
P42	5	-	-	-	-
P43	5	-	-	-	-
P44	-	20	-	-	-
P45	5	-	-	-	-
P46	5	-	-	-	-

SECTION 3

SECTION 3

MONITORING SYSTEMS
HEWITT LANDFILL

Each of the locations where sampling was performed is designated on the SWAT site map in Exhibit 3-1. The walking course followed during surface sampling is illustrated in Exhibit 3-2.

Subsequent descriptions are provided for each type of monitoring performed during implementation of the test program. Section 3A contains information on landfill gas testing program design and implementation, including sampling procedures and analytical requirements. Procedures used for integrated surface sampling are described in Section 3B. The ambient air monitoring program is described in Section 3C, including procedures used for sample collection, meteorological criteria applied, analytical requirements, and equipment used for wind monitoring and air sampling. Gas migration monitoring is addressed in Section 3D. The analytical methods employed by ERT Air Toxics Laboratory are summarized in Section 3E, including methods for each of the Attachment 1 toxic air contaminants and fixed gases, as well as methods developed by ERT chemists for measurement of total methane and nonmethane hydrocarbons.

KLEINFELDER

EXHIBIT

SOLID WASTE ASSESSMENT TEST SITE MAP

Hewitt Landfill

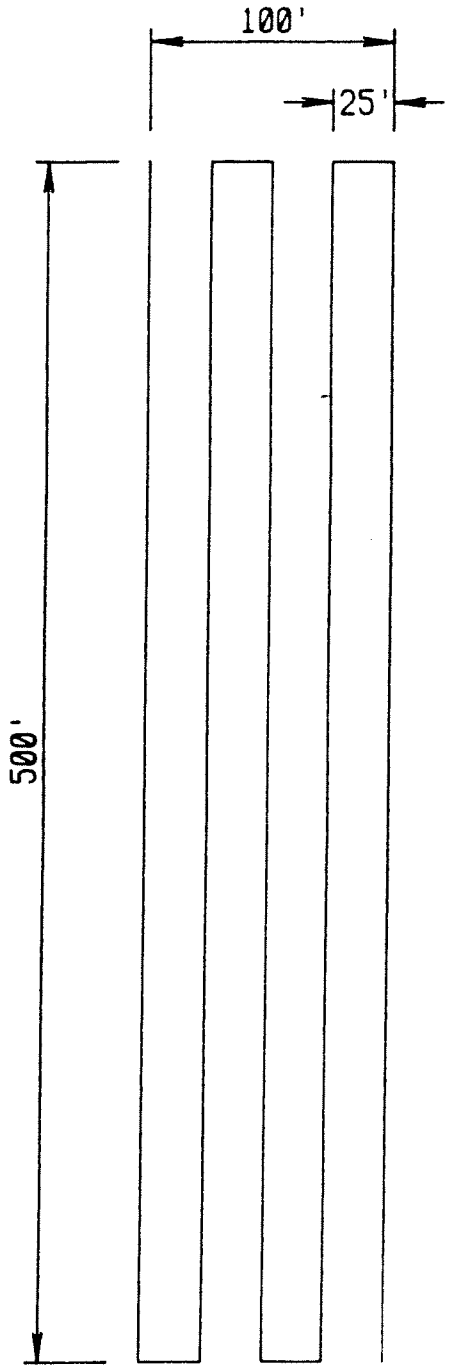
(Drawing E-1032-01-16-0248)

3-2

526 Hofgaarden Street, City of Industry, CA 91744

EXHIBIT 3-2

MONITORING COURSE FOR SURFACE SAMPLING



Source: South Coast Air Quality Management District

3A GAS STREAM CHARACTERIZATION

3A GAS STREAM CHARACTERIZATION
HEWITT LANDFILL

The internal landfill gas sampling method was employed to characterize the gas within this site, using the existing gas recovery/control system to collect two composite gas samples representative of the entire landfill. The SWAT site map in Exhibit 3-1 illustrates the layout of the existing collection system and the location of the system sampling point.

COLLECTION SYSTEM SAMPLING PROCEDURE

On both 20 and 21 October 1988, one gas sample was collected from the inlet to the blower/flare. A portable battery-operated sampling pump was attached to the sampling port, and the gas sample was collected in a 10-liter Tedlar bag using the direct pump sampling procedure described in Section 7.1.2 of EPA Method 18. No emissions or odors were noted during sampling. The sampling date, time, and sample location were recorded on a field sampling log and sample tags. The bag samples were kept in light-sealed containers at all times.

GAS SAMPLE ANALYSIS

The gas samples were submitted to ERT Air Toxics Laboratory for analysis to determine the concentrations of methane, oxygen, carbon dioxide, nitrogen, and the air contaminants listed in Attachment 1 of the ARB guidelines, using the "disposal site" detection limits. The samples were submitted promptly to ensure analysis within 72 hours after collection.

GAS SAMPLING EQUIPMENT DESCRIPTION

The following equipment was used to sample the landfill gas collection/control system, in accordance with California Health and Safety Code (HSC) Section 41805.5 (Calderon) testing guidelines.

SPECIFICATIONS FOR SAMPLING PUMP AND TEDLAR BAG

A. Pump: One 12-V dc pump. The diaphragm is made of nonlubricated Viton (DuPont trade name for co-polymer of hexafluoropropylene and vinylidene fluoride). The maximum pump unloaded flow rate is 4.5 liters per minute.

B. Bag: One 10-liter Tedlar bag with a valve. The Tedlar bag is contained in a light-sealed cardboard box to prevent photochemical reactions from occurring during sampling and transportation. The valve is a push-pull type constructed of aluminum and stainless steel, with a Viton O-ring seal.

C. Fittings, tubing, and connectors: 316 stainless steel or Teflon.

THEORY OF OPERATION

The sampling train is designed to evacuate a given well or probe with a Brailsford pump and discharge the sample into a light-sealed Tedlar bag for instantaneous monitoring and/or subsequent laboratory analysis with prescribed analytical instrumentation. Bags are tested with portable instrumentation, and specified samples are sent to the laboratory for further analysis if required according to Calderon guidelines.

DESIGN AND CONSTRUCTION

The sampling train consists of a Brailsford TD-2N pump with Viton elastomers housed in a small plastic box. The power for the pump comes from two 9-V dc batteries. (Further details on pump design and construction are provided in Section 3B.) A Teflon tube is connected from the well or probe to be sampled to the pump inlet port. From there the sample is discharged into a Teflon tube connected to the light-sealed Tedlar bag. The sample may then be analyzed using required instrumentation and procedures.

3B INTEGRATED SURFACE SAMPLING

3B INTEGRATED SURFACE SAMPLING
HEWITT LANDFILL

INTEGRATED SAMPLING PROCEDURE

The sectors of the landfill surface monitored during integrated surface sampling are delineated on the SWAT site map. The grids were located along the two perimeters of the landfill which are adjacent to a residential development, over areas which have not been paved with asphalt. On 20 October 1988, one integrated surface sample was collected in a 10-liter Tedlar bag from each of the two approved 50,000-square-foot grids using the portable bag sampler. The sampler flow rate was set at approximately 333 cubic centimeters per minute. During sampling, the probe was placed approximately two to three inches above the landfill surface. Using the walking pattern shown in Exhibit 3-2, a course of approximately 2,600 linear feet was walked over a continuous 25-minute period. The sample was enclosed in a light-sealed container at all times. The landfill gas control system was operating at the time of sampling.

INTEGRATED SAMPLING CONDITIONS

To measure wind speed throughout the sampling period, a wind speed monitor with a continuous recorder was installed in an area with unobstructed wind flow from all quadrants. Sampling was conducted during a period when the average wind speed was less than five miles per hour, as determined on a 10-minute average. Surface sampling was terminated if the average wind speed exceeded five miles per hour, or the instantaneous wind speed exceeded ten miles per hour. Surface monitoring was conducted when the landfill was dry and no rain had fallen for the preceding 72 hours.

SURFACE SAMPLE ANALYSIS

As described in Section II.A of the Testing Guidelines for Active Solid Waste Disposal Sites (paragraph two, page 5), the integrated surface samples were tested for methane emissions, using a portable FID with a lower detection limit of 0.2 parts per million.

INTEGRATED SURFACE SAMPLING/MONITORING EQUIPMENT DESCRIPTION

The integrated surface sampler was designed to draw samples of landfill gas immediately after they have passed through the disposal site final cover and entered the atmosphere. Because of sample dilution, more sensitive analytical methods are necessary to adequately characterize the sample. The sampler is a portable, hand-held device that discharges the sample into a light-sealed Tedlar bag. A grid (approximately 50,000 square feet) is designated and marked out on the landfill surface. A technician then uses the sampler to draw in approximately 8 to 10 liters of sample while walking a course of approximately 2,600 linear feet over a 25-minute period. This unit is used in conjunction with a wind speed and wind direction recorder to ensure compliance with the specified sampling criteria.

SPECIFICATIONS

Power: Two 9-volt dc transistor batteries wired in series provide power to the Brailsford pump.

Pumps: Brailsford TD-4AS diaphragm pump with Viton elastomers and O-ring, 12 to 18-volt dc operation, 4.5 liters per minute unloaded flow rate.

Bag: One Tedlar bag with valve (SKC West) is contained in a light-sealed cardboard box (nominal dimensions 24 inches by 12 inches by 7 inches) to prevent photochemical reactions from occurring during sampling and transportation. Valves are a push-pull-type constructed of aluminum and stainless steel with a Viton O-ring seal.

Rotameter: Brooks Model 1350 VB flowmeter with Viton O-rings and seals. Stainless steel NRS valve.

Fittings, tubing, connectors, and funnel: 316 stainless steel or Teflon.

THEORY OF OPERATION

The sampling unit consists of one independent bag sampler with its own collection bag, pump, and associated tubing powered by two 9-volt batteries. Each bag sampler uses a dc-operated pump having a total unloaded flow capacity of 4.5 liters per minute, stainless steel capillary tubing to control the sample flow rate to the bag, a rotameter for flow indication to aid in setting the flow, and a 10-liter Tedlar sample bag. The associated tubing and connections are made of stainless steel, Teflon, or borosilicate glass to minimize contamination and reactivity.

The pump uses a nonlubricated Viton diaphragm assembly that is relatively inert. In addition, the rotameter controls the rate of sampling. Only stainless steel, glass, and Tedlar come into significant contact with the collected sample.

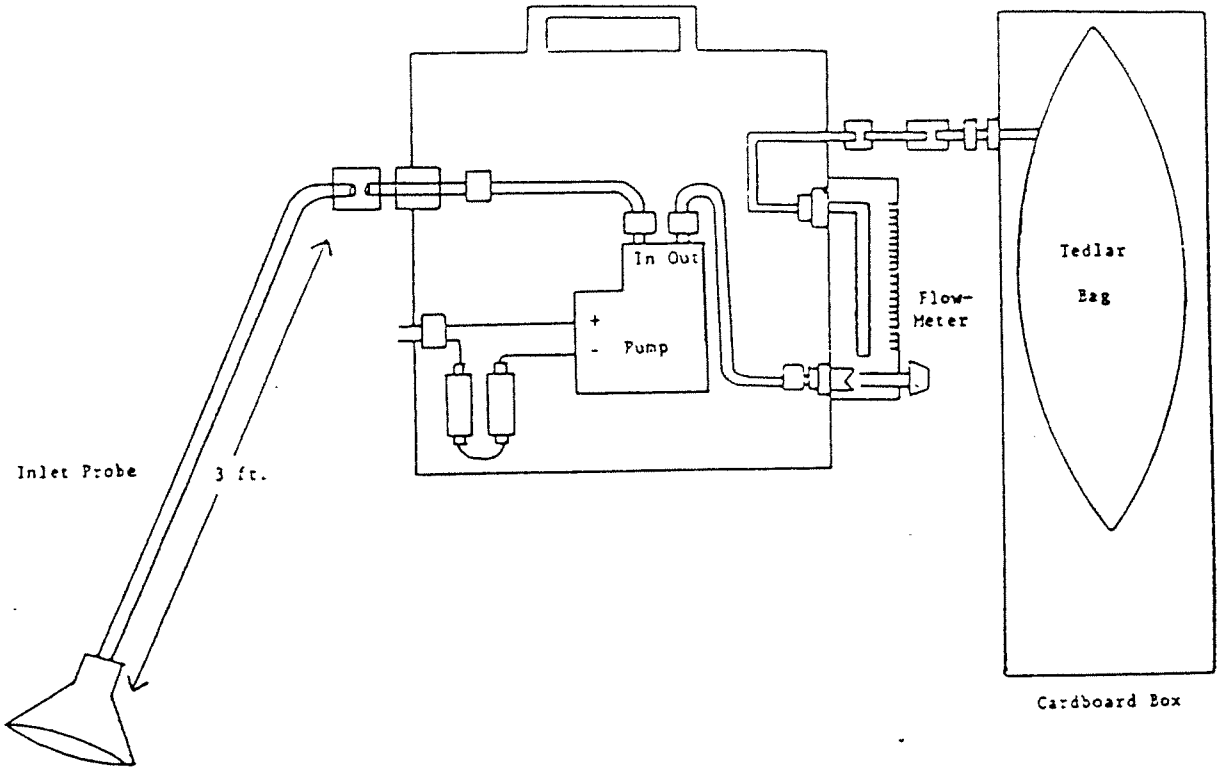
The sampling pump unit is totally enclosed and the Tedlar bags are contained in light-sealed boxes to prevent photochemical reactions from occurring during and after sampling.

DESIGN AND CONSTRUCTION

The sampler is a portable, hand-held device that draws a sample off the landfill surface and discharges it into a light-sealed Tedlar bag. Sampler construction is illustrated in Exhibit 3-3. The sampling pump and batteries are housed in a small metal box with a carrying handle. The intake of the sampler is a 3-inch stainless steel funnel connected to 1/4-inch O.D. 316 stainless steel tubing. The tubing enters the metal box through a bulkhead fitting. The sample is drawn through the tubing, then enters the pump and is discharged into the rotameter. From there the tubing leaves the pump box and discharges into the Tedlar bag, which is housed in a light-sealed cardboard box. The box is secured to the sampler by bracket straps.

EXHIBIT 3-3

PORTABLE INTEGRATED SURFACE SAMPLER



Source: South Coast Air Quality Management District

The pump is powered by two 9-volt dc transistor batteries, with flow controlled by the rotameter made of borosilicate glass with a range of 0 to 1 liter per minute.

BRAILSFORD PUMP MODEL TD-2N/TD-4AS

The motor is a sealed unit containing three double-shielded ball bearings. The specially-ordered pumps contain no lubricant which could possibly affect analytical results. The ball bearings are never lubricated.

Before placing the unit in operation, the diaphragm is formed for the service desired. This is done by running the pump with both ports open, then temporarily closing either the inlet (marked "IN") or outlet port with the finger to cause the diaphragm to snap to its inner or outer position. For example, if suction operation is desired, the inlet port should be closed and vice versa.

The pumping rate may be controlled by (a) varying the driving voltage, (b) adjusting the stroke, and (c) using a throttling valve. Generally, methods (a) and (b) will result in more efficient operation. Model TD pumps are not designed to start under full load.

The diaphragm life is a function of the operating conditions, including the type of gases pumped. The diaphragm may or may not require replacement after approximately 5,000 hours of continuous service (refers to standard Neoprene diaphragm). Valves contained within the pump head are of the flapper type and normally will not wear out, but may be damaged if solid foreign particles enter the system. A complete pump head (available as a spare part) should be installed. In the event loss of vacuum is traced to the pump, the pump head and/or diaphragm may be replaced.

MONITORING INSTRUMENT EQUIPMENT SPECIFICATIONS

Following integrated surface sampling, a portable flame ionization detector (FID) with a lower detection limit of 0.2 parts per million was used to determine the concentration of total organic compounds (TOCs), measured as methane, in each bag sample. This equipment meets the specifications provided in Table 3-1.

TABLE 3-1 PORTABLE FLAME IONIZATION DETECTOR EQUIPMENT SPECIFICATIONS (Foxboro Century Model OVA 128)

Parameter	Specifications
Range	. 0 to 1,000 ppm on a linear scale
Minimum detectable limits	. 0.2 ppm methane
Response time	. 2 seconds (for 90% of final reading)
Flame-out indicator	. Audible and visual
Accuracy	. ± 20 percent of individual full scale
Operating temperature range	. 10° to $40^{o}C$

3C AMBIENT AIR MONITORING

3C AMBIENT AIR MONITORING
HEWITT LANDFILL

This ambient air monitoring program was designed and conducted to meet all requirements for implementation of California HSC Section 41805.5. The program was based on geographical and meteorological profiles constructed from existing data collected at the Burbank Airport and the Penrose Landfill, both located less than two miles from the Hewitt site.

Ambient air sampling commenced in November 1988. Samples were collected from five specified points at the perimeter of the disposal site. Based on site-specific conditions, samplers were stationed to provide the best possible meteorological exposure to the predominant offshore and onshore wind flows, and to address local nightly drainage patterns. A wind speed and direction monitor was installed to collect wind data throughout the sampling period to verify that prevailing wind patterns came across the disposal site to the downwind station. Due to construction of a fence at the landfill boundary which could obstruct sampling, in addition to slight shifts in wind flow patterns, locations of the 24-hour sampling stations and wind monitor were moved following discussions with the SCAQMD. Proposed and final sampling and wind monitoring locations are shown on the SWAT site map.

METEOROLOGICAL PROFILE

The following meteorological conclusions were based on wind roses constructed from data collected at the Penrose Landfill which lies approximately one mile northeast of Hewitt, and at the Burbank Airport meteorological station, located less than two miles from the landfill. The information evaluated included wind speed and direction data collected at the nearby Penrose Landfill during the SWAT air sampling program in April 1988; an hourly wind rose constructed from data collected on the Penrose Landfill during a 2-week meteorological study in November 1986; and a historical November hourly wind rose constructed from more than 20 years of wind speed and direction data collected at the Burbank Airport. These data were submitted to the SCAQMD in the SWAT Proposal Addendum.

Local meteorological conditions in this sector of the South Coast Air Basin generally conform well to the regional pattern of strong onshore (sea breeze) winds by day, and weak offshore drainage winds during the night and early morning hours. The annual prevailing wind patterns generally vary mainly between south and southeast during late morning and early and late afternoon hours. Wind speeds average annually between four and seven miles per hour (mph). The local night and early morning drainage winds are usually variable from the west through the northwest, north, and northeast, with wind speeds averaging between 1 and 3 mph.

The area is characterized by daytime onshore wind flow patterns which could carry potential landfill emissions toward the adjacent homes which lie north of the main body of the landfill. However, these emissions are diluted by the time they reach the homes because of the excellent vertical atmospheric mixing that is associated with the unstable daytime meteorological conditions. At night when uneven cooling of the ground causes density changes, cold air drainage flows move potential emissions off the landfill in many directions, including into the adjacent residential area and the commercial/industrial areas to the southeast and southwest. The cold air drainage flow will tend to carry any emissions to these areas of slightly lower terrain. These emissions tend to remain close to the ground, diluting very slowly as they drain to lower elevations.

SAMPLING PROGRAM DESIGN

The sampling program was derived from Option 2 in the Air Resources Board ambient air sampling guidelines, based on meteorological and geographical profiles and the wind data described above for the landfill site. This option provides for 24-hour and less-than-24-hour ambient air sampling to be conducted on three different, not necessarily consecutive, days. The locations of the samplers are indicated on the SWAT site map.

Two 24-hour samplers were installed. One 24-hour sampler was placed upwind (southeast section) and one downwind (northwest section) because of prevailing daytime onshore wind flow patterns from the southeast. The 24-hour samplers operated continuously during the designated sampling period each day (approximately 10 a.m. to 10 a.m.).

Two less-than-24-hour samplers were required for cold air drainage conditions. The samplers were placed in areas identified as having the potential for greatest expected pollutant concentrations. One less-than-24-hour sampler was located at the southeast corner, near Laurel Canyon Boulevard. A second less-than-24-hour sampler was installed in the southwestern section of the landfill, near the junction of the rail lines and the freeway. A duplicate sampler was collocated six feet away. Collocated samples were collected daily for three days of sampling. The less-than-24-hour samplers operated only when the wind was moving across the disposal site to the downwind drainage stations, and identified only emissions moving away from the landfill. Less-than-24-hour sampling was conducted from approximately 10 p.m. to 8 a.m.

GENERAL SAMPLING CRITERIA

Using the portable sampling units, an ambient air sample was collected in a 10-liter Tedlar bag from each station over each of the 24-hour periods beginning at approximately 10 a.m. The sampling locations were marked on a landfill topographic map drawn to scale. The samples were removed from the samplers immediately after each 24-hour sampling period. The sampling equipment was located at or near the perimeter of the waste disposal site, as far away as possible from surrounding obstructions. The inlet probes for the ambient samplers were located between six and nine feet above the ground (breathing height) and a minimum of 60 feet from avoidable obstacles such as trees, shrubbery, and buildings. Air flow around the inlet probe was unrestricted in an arc of at least 270 degrees, with the predominant wind direction for greatest expected pollutant concentration potential included in the 270-degree arc. The sampler locations were carefully selected to ensure that the predicted prevailing wind patterns for the sampling dates flowed across the main body of the disposal site to the downwind sampling station.

METEOROLOGICAL SAMPLING CONDITIONS

Ambient air sampling was conducted on 9 through 10 November and 15 through 17 November 1988, when stable (offshore drainage) and unstable (onshore sea breeze) meteorological conditions were characterized by stable nights with average wind speeds of five miles per hour or less, and daytime conditions with average wind speeds of ten miles per hour or less. No sampling was conducted during rainfall or when the average 24-hour wind speed exceeded ten miles per hour.

Continuously-recorded on-site wind speed and direction measurements were collected throughout the sampling period to verify that the meteorological criteria were met during sampling. The prevailing daytime and nighttime drainage wind patterns for the sampling dates came across the main body of the landfill to the downwind stations. The wind direction transmitter was oriented to true north using a compass.

AIR SAMPLE ANALYSIS

The ambient air samples were enclosed in light-shielded containers at all times, and shipped to ERT Air Toxics Laboratory. The samples were analyzed for all contaminants listed in Attachment 1 to the guidelines using the "air" detection limits. Samples were analyzed within 72 hours after collection.

WIND SPEED AND DIRECTION DATA

Wind data were reported in the following manner:

1. Wind speed and direction data are reported as an hourly average; i.e., data collected between 1 p.m. and 2 p.m. were averaged and reported as the 1 p.m. hourly average.

2. Wind speeds are reported in miles per hour.

3. Wind directions are reported using the 16-point scale, with 16 directional points corresponding to the mariner's rose on which each direction is equivalent to a 22.5-degree sector of a 360-degree circle. Wind directions are reported as (16) N, (1) NNE, (2) NE, (3) ENE, (4) E, (5) ESE, (6) SE, (7) SSE, (8) S, (9) SSW, (10) SW, (11) WSW, (12) W, (13) WNW, (14) NW, and (15) NNW.

WIND MONITORING SYSTEM
EQUIPMENT DESCRIPTION

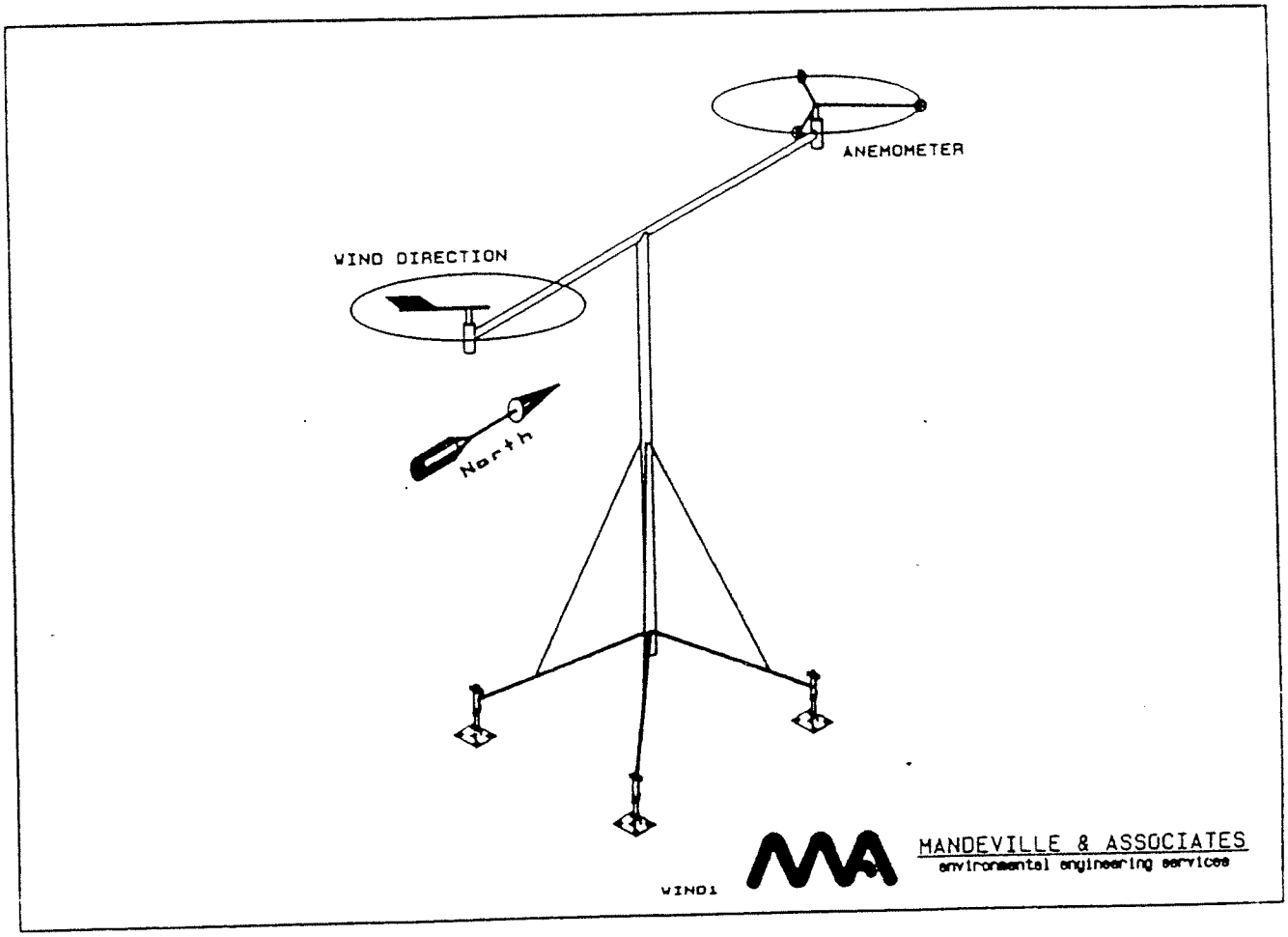
Meteorological monitoring is conducted to determine the local wind flow patterns and to ensure wind speeds have not exceeded the maximum allowable average. This requires the installation of a continuously-recording portable wind speed and direction monitor on site to record wind data. At the completion of the meteorological monitoring, the wind data are summarized into hourly wind roses. A wind rose is a diagram designed to show the distribution and prevailing wind direction and speed experienced at a given location over a period of time.

The precise location of the monitor(s) is determined by the topography and physical condition of the landfill site. Depending upon the complexity of the landfill topography, it may be necessary to relocate the wind monitor. The monitor sensors are located six to 12 feet above the ground and a minimum of 60 feet from obstacles such as trees, shrubbery, and buildings. The purpose for the low sensor height is to evaluate local eddies and channeling, and their effects on the samples which will be collected.

The Climatronics F460 Wind Recording System is illustrated in Exhibit 3-4. This system provides a strip-chart record of the wind speed and direction. The system consists of a printed circuit card mounted in the rear of a two-pen, pressure-sensitive recorder. The circuit card converts the output signals from the F460 sensors into signals which can be recorded. In addition, the output voltage can be used as the input power supply to a data acquisition system.

EXHIBIT 3-4

CLIMATRONICS WIND RECORDING SYSTEM



SPECIFICATIONS

The F460 wind speed and direction recorder is housed in a weatherproof fiberglass case, which can be mounted on the tripod stand, if desired.

The weather recorder and sensors require a direct current (dc) power supply of 12 volts (V). The unit is operated on either a 12-V dc marine deep-cycle battery; 110-V alternating current (ac) using the supplied 12-V dc power conversion pack; or is powered internally using two 12-V dc lantern batteries.

Anemometer cups:	heavy-duty vinyl tape
Wind speed ranges:	0 - 50 mph and 0 - 100 mph
System output voltage:	0 - 5 V dc
Wind direction range:	540° scale

THEORY OF OPERATION

Wind Speed

The wind speed section of the translator converts the variable frequency output of the wind speed transmitter into a dc voltage. The translator is, therefore, essentially a frequency-to-voltage converter. The input to the translator is a square wave with a peak-to-peak amplitude of 6.4 volts.

Wind Direction

The wind direction section of the translator contains the electronics necessary to convert the high-impedance signal from the wind direction transmitter to a low-impedance output signal with the required span for operation of a remote analog monitoring device. The translator also contains the logic required for converting the 360-degree transmitter signal to a 540-degree signal.

CALIBRATION AND MAINTENANCE

This unit has been initially calibrated at the factory and should not require major adjustments. A calibration check is performed before and after each use. Prior to field use of the equipment, the calibration log is completed. All calibration voltages and test points used are as specified in the manufacturer's operation manual. The only tools needed for normal calibration checks and adjustments are a voltmeter with alligator clip leads, and a small instrument screwdriver.

The Climatronics F460 wind recording system requires no maintenance other than periodic calibration and annual inspection and calibration. Any damaged cables or connectors are replaced as necessary. Any more severe operational difficulties are handled through the manufacturer.

WIND SPEED SENSORS

The F460 wind speed transmitter is designed for low-threshold operation and rapid response, a wide dynamic wind speed range, and the ability to operate in adverse environments. Wind speed is sensed by a three-cup anemometer, made of aluminum-coated plastic. A photochopper rotates with the cup assembly and its rotation is converted to an electrical signal by a phototransmitter and light source. The output of the transmitter is a signal whose frequency is proportional to the wind.

Theory of Operation

A lightweight, chemically-etched disk divided into 30 sections rotates with the cup set. As the disk rotates, the light path between the infrared light-emitting diode (LED) and the phototransistor is alternately blocked and left clear. In order to reduce power consumption to a minimum, the power to the LED is turned on for only 10 microseconds every 1 millisecond.

Calibration

The wind speed sensor requires no calibration. A potentiometer is provided on the wind speed amplifier to allow adjustment of the output waveform. This output has been adjusted at the factory and adjustment should not be attempted in the field.

Maintenance

The wind speed sensor is a low-maintenance wind sensor that requires only periodic inspection of the cup set and periodic replacement of the sensor bearings. Damaged cup sets are replaced using the following procedures:

1. Remove the cups and vane by loosening the two set screws that hold them to the shaft and lifting them off the shaft.
2. Unscrew the two screws holding the printed board, and move it away from the shutter.
3. Remove the two flat head screws holding the column assembly to the support and remove the column assembly.
4. Loosen the two set screws that hold the cap in place and remove the cap.
5. Remove the retaining ring from the shaft with retainer ring pliers or a small pen knife. If the retaining ring is bent, it must be replaced.
6. Allow the shaft to slide out through the open end of the column, being careful not to damage the shutter.
7. Remove and discard the old bearings. It may be necessary to push the bearings out from the bottom of the seats with a long thin rod or the shaft assembly. Pushing lightly all around the bearing is better than too much pressure on one side of the bearing.

WIND DIRECTION SENSOR

The Climatronics F460 Wind Direction Transmitter is designed for low-threshold operation, rapid response, a wide dynamic wind speed range, and the ability to operate in adverse environments. Wind direction is sensed by a lightweight, counterbalanced, aluminum-coated plastic vane. Vane position is converted to an electrical signal by a precision, low-torque potentiometer.

Theory of Operation

The wind direction transmitter consists of a vane coupled to a potentiometer. Vane position is sensed by the precision, low-torque potentiometer, and sent to the translator as a dc voltage. A 1/32-amp fuse is connected in series with the potentiometer to prevent damage if excessive current is allowed to flow to the potentiometer. When testing the potentiometer, the current must be limited to a maximum of 25 milliamperes (mA).

Calibration

Adjustment of the wind direction transmitter is required only if the cap has slipped relative to the shaft assembly. If adjustment is required, the wind direction translator is calibrated, then the two set screws that hold the cap in place are loosened, and the shaft is rotated until a reading of 180 degrees is obtained in the recorder. A voltmeter may also be used for this purpose; it should read one-third of the translator full scale output. The cap is then rotated so that the flat section on the cap is perpendicular to a line drawn through the center of the transmitter and the alignment mark on the adapter. The set screws are then tightened to lock the cap in place.

Maintenance

The wind direction sensor is a low-maintenance wind sensor that only requires periodic inspection of the vane and periodic replacement of the sensor bearing. Damaged vanes are replaced.

AMBIENT AIR BAG SAMPLER
EQUIPMENT DESCRIPTION

The sampler was originally designed for the collection of consecutive 24-hour integrated samples in bags without requiring a person to be on site at the exact time of sample changes. The replacement of the mechanical clock with a microprocessor-based timer allowed greater flexibility in sample collection. Samples can now be collected simultaneously (i.e., collocated sampling); consecutively on the same day, for variable time periods; over the same or different time periods on consecutive days; or any number of combination of two samples over a seven-day period. The samples collected are subsequently analyzed for the contaminants of interest. The bag material is Tedlar (DuPont trade name for polyvinyl fluoride) to minimize contamination and reactivity. The sampler is a self-contained, portable unit with its own power source, that requires little maintenance and simple calibration, and yet is very reliable.

SPECIFICATIONS

- Power. Two 12-volt (V) marine batteries (lead acid) provide 12 volts in parallel to the pumps and the clock timer switch. Power consumption is nominally 0.075 amps allowing the pumps to run approximately 30 days between battery recharges.

- Pumps. Two Brailsford Brushless, 12 to 18 volts, with a maximum unloaded flow rate of 4.5 liters per minute (liters/min). The diaphragm is made of nonlubricated Viton (DuPont trade name for co-polymer of hexafluoropropylene and vinylidene fluoride) rubber.

- Clock timer switch. ChronTrol 12-volt, microprocessor-based timer capable of performing a wide range of programmed switching operations.

- o Bags. 10-liter Tedlar bags with valves. The bags are contained in light-sealed cardboard boxes of nominal dimensions 24 x 12 x 7 inches, to prevent photochemical reactions from occurring during sampling and transportation. The push-pull valve is constructed of aluminum and stainless steel, with a Viton O-ring seal. The bag material is polyvinyl fluoride to minimize contamination and reactivity.

- o Rotameters. Two Brooks Model R-2-15-AAA with black glass float. The rotameters are made of borosilicate glass and have a flow range of 3 to 50 cubic centimeters per minute (cc/min). The scale is in millimeters (mm) with major graduations (labeled) every 5 mm and minor graduations every 1 mm.

- o Air Flow Control Orifice. 316 stainless steel capillary tubing.

- o Bypass Valve. Whitey Model 1RS4.

- o Manifolding Valve. Nupro Model SS-4P4T.

- o Fittings, Tubing, and Connectors. 316 stainless steel or Teflon.

THEORY OF OPERATION

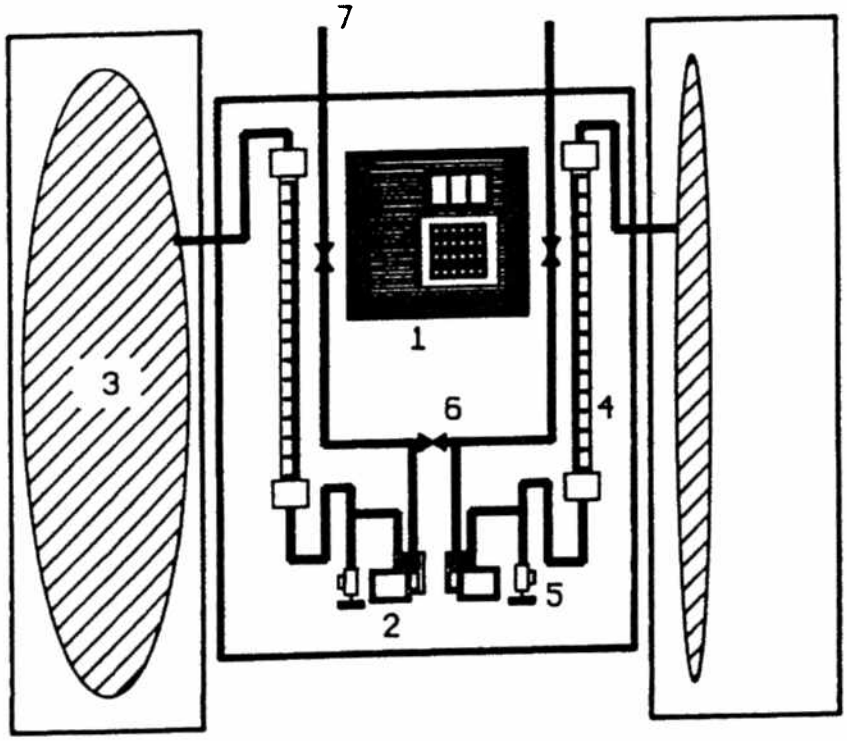
The sampling unit is illustrated schematically in Exhibit 3-5. The unit consists of two independent bag samplers, each with its own collection bag, pump, and associated tubing, controlled by a 24-hour clock timer switch. At the end of the sampling period, the timer can shut off the sampler that is operating and activate the second sampler. In this way, consecutive samples may be conveniently collected regardless of the required beginning time of sampling or length of sampling period. Full sample bags must be replaced with empty bags to carry out continuous sampling.

EXHIBIT 3-5

AMBIENT AIR BAG SAMPLER SYSTEM DIAGRAM

MANDEVILLE & ASSOCIATES
environmental engineering services

1. CHRONTROL TIMER
2. PUMP
3. BAG
4. ROTAMETER
5. BYPASS VALVE
6. MANIFOLDING VALVES
7. AIR INLET



AMBIENT AIR BAG SAMPLER
SYSTEM DIAGRAM

FORM 14A

Each bag sampler uses a dc-operated pump having a total unloaded flow capacity of 4.5 liters/min, stainless steel capillary tubing to control the sample rate to the bag, a bypass valve to control the sample flow rate (and minimize back pressure on the pump), a rotameter for flow indication to aid in setting the flow, and a 10-liter Tedlar sample bag. The associated tubing and connections are made of stainless steel, Teflon, or borosilicate glass to minimize contamination and reactivity.

The pump uses a nonlubricated Viton diaphragm assembly that is relatively inert to contaminants. In addition, the bypass valve ensures that the pump is operating at near maximum flow, both minimizing sample residence time and continuously flushing the pump with fresh sample. Only stainless steel, glass, and Tedlar come into significant contact with the collected sample.

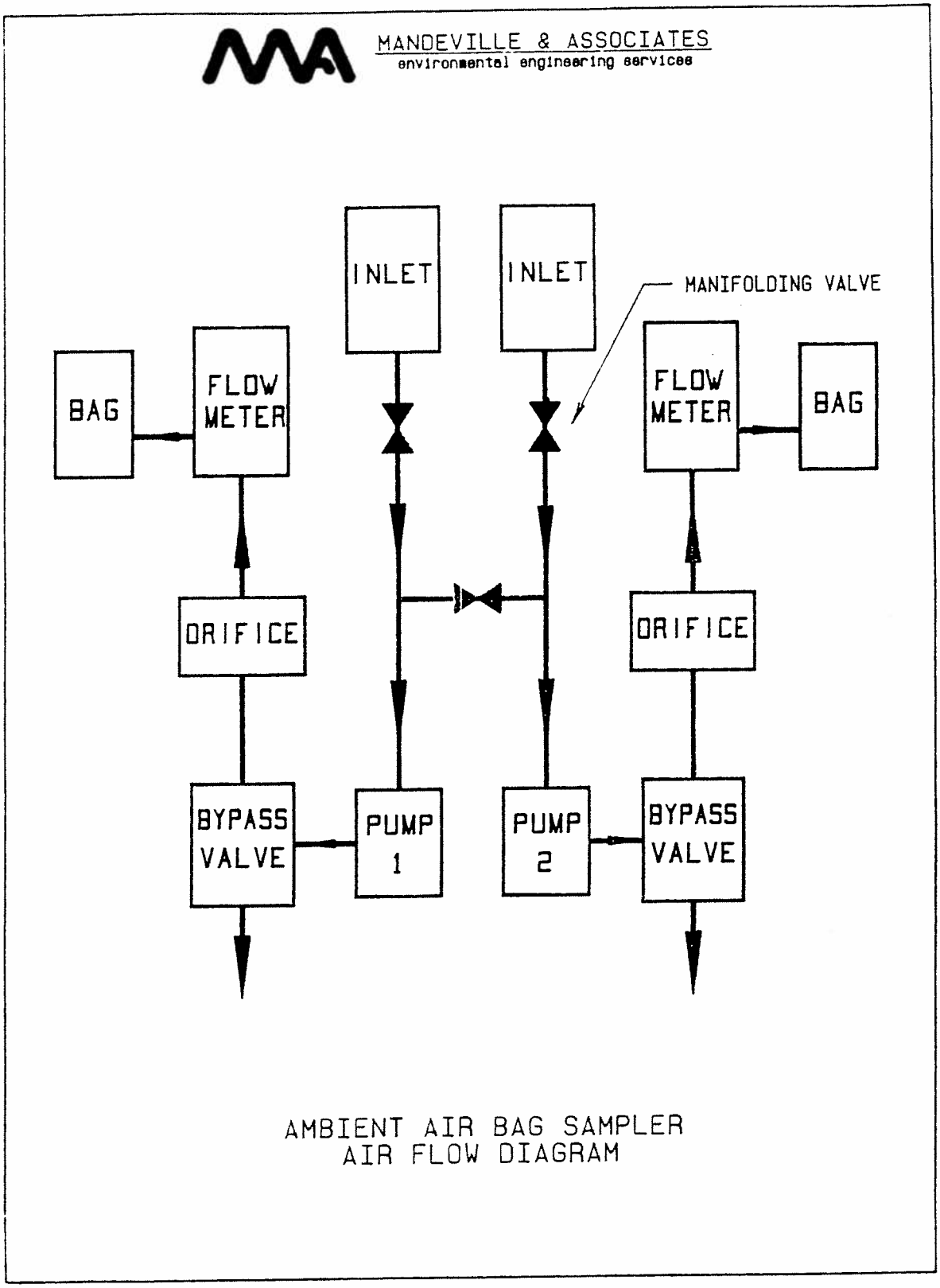
The sampling unit is totally enclosed and the Tedlar bags are contained in light-sealed boxes to prevent photochemical reactions from occurring after sampling.

DESIGN AND CONSTRUCTION

The sample pumps, fittings, and samples are housed inside a lockable steel box, with louvers cut on the doors to allow ventilation. The panel on which the pumps, controller, flow tubes, bypass valve, and manifold valves are located is removable to aid in repair and maintenance operations. A 1/4-inch-diameter stainless steel tube protrudes through the top of the enclosure to a height of 6 feet. A stainless steel funnel is connected to the end of the tube, pointing in a downward direction to minimize sample contamination. This is the point of sample intake. When the stainless steel tubing enters the enclosure, it is split off, with one 1/4-inch line leading to the inlet side of each pump. The pumps then discharge the sample, which must pass through the bleeder valve and/or the stainless steel capillary tubing. The sample subsequently enters the borosilicate glass rotameter, and then is routed to the sample medium (the Tedlar bag). The rotameter is used to set and determine the amount of sample which will fill the Tedlar bag. An air flow diagram is provided in Exhibit 3-6.

EXHIBIT 3-6

AMBIENT AIR BAG SAMPLER AIR FLOW DIAGRAM



Both the Brailsford pumps and Chrontrol timer require a continuous 12-V dc power supply. For this purpose, two deep-cycle marine style batteries the batteries are wired in parallel (positive to positive, negative to negative) to supply the maximum amp-hr capacity to the pumps and controller (Exhibit 3-7).

The power is then connected to a terminal strip. The negative lead from the batteries is connected to the negative side of the controller and pumps. The positive lead from the batteries is connected to the positive side of the controller and pumps.

CHRONTROL OPERATIONS

ChronTrol is an electronic, microprocessor-based timer capable of performing a wide range of power-switching operations. In our particular application (ambient air sampling), the ChronTrol is the primary device used to regulate sample times, and duration of samples collected by the dual ambient air sampler. The model used is the 16-program, 4-circuit model CD-4S.

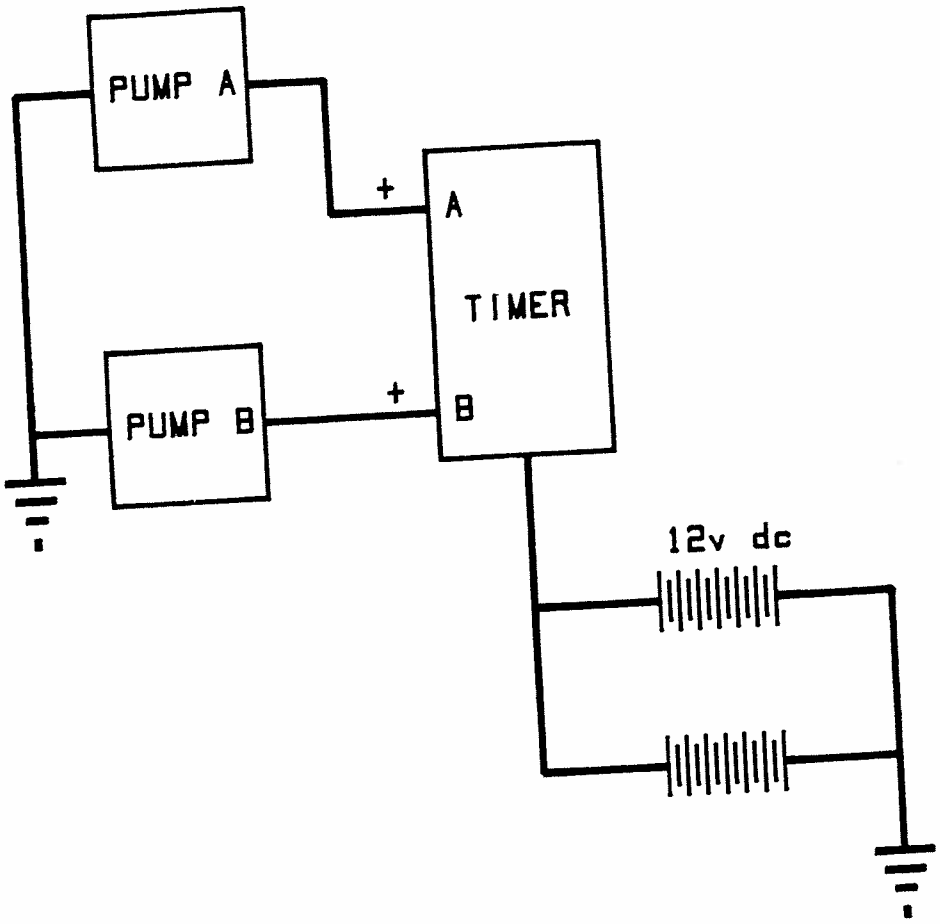
BRAILSFORD PUMP MODEL TD-2N

The motor is a sealed unit containing three double-shielded ball bearings, which is special-ordered to be nonlubricated so as not to introduce possible contaminants to the sample medium. Before placing the unit in operation, the diaphragm should be formed for the service desired. This is done by running the pump with both ports open, then temporarily closing either the inlet (marked "IN") or outlet port with the finger to cause the diaphragm to snap to its inner or outer position. For example, if suction operation is desired, the inlet port should be closed and vice versa. The pumping rate may be controlled by (a) varying the driving voltage, (b) adjusting the stroke, and (c) use of a throttling valve. Generally, methods (a) and (b) will result in more efficient operation. Model TD pumps are not designed to start under full load.

EXHIBIT 3-7

AMBIENT AIR BAG SAMPLER ELECTRONICS DIAGRAM

MANDEVILLE & ASSOCIATES
environmental engineering services



AMBIENT AIR BAG SAMPLER
ELECTRONIC DIAGRAM

FORM 16A

The diaphragm life is a function of the operating conditions, including the type of gases pumped and may or may not require replacement sooner. Valves contained within the pump head are of the flapper type and normally will not wear out, but may be damaged if solid foreign particles enter the system. In the event loss of vacuum is traced to the pump, the pump head and/or diaphragm may be replaced.

3D GAS MIGRATION MONITORING

3D GAS MIGRATION MONITORING
HEWITT LANDFILL

To determine the existence of off-site gas migration, a permanent monitoring system was installed at the perimeter of the landfill. Details on probe system design are provided in Section 2. The field layout is depicted on the SWAT site map in Exhibit 3-1. These probes are routinely monitored by site personnel on a weekly basis. To satisfy SWAT requirements stipulated by the SCAQMD, the latest monitoring results (May through December 1988) are provided in Section 4E.

3E ANALYTICAL METHODS

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

May 19, 1987

Mr. Michael L. Porter
Laboratory Manager
ERT, A Resource Engineering Company
975 Business Center Circle
Newbury Park, CA 91320

Dear Mr. Porter:

This is in response to you letter of May 13, 1987, in regard to ERT's alternate procedures for analyzing selected halogenated hydrocarbons, benzene, and vinyl chloride in landfill gases and in ambient air.

This District will accept, as equivalent to CARB Methods 102-Revision 1, 103-Revision 1, ADDL002 or ADDL004, the methods for the specified compounds referenced in the Technical Services Division research report "Hazardous Pollutants in Class II Landfills", written by John A. Wood and Michael L. Porter while they were employees of this District.

Very truly yours,

Sanford M. Weiss
Director of Technical Services

Margil W. Wadley

Margil W. Wadley, Ph.D.
Manager of Laboratory Services
(818) 572-6452

MWW:md

cc: E. Camarena
H. Dennison

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 101

June 1, 1987

Laboratory Analytical Procedure For the Measurement of C_1 and C_2 Halogenated Hydrocarbon Concentrations in Ambient Air and Landfill Gas Using Gas Chromatography

I. Introduction

A chromatographic analysis procedure may be used to determine volumetric concentrations of volatile C_1-C_2 halogenated hydrocarbons in whole air samples. The samples are received in the laboratory for analysis. The air samples may be collected in Tedlar sampling bag containers over a designated time period or they may be instantaneously collected in steel, glass or Tedlar bag containers. Actual sampling procedures are described elsewhere. It is important that samples be received in the laboratory for analysis immediately after collection.

The approach for analyzing C_1-C_2 halogenated hydrocarbons is to choose isothermal column temperatures and valve time switching such that a group of selected components of are analyzed.

a) The following components are analyzed at a temperature of 67°C with valve back-flush at 0.50 minutes.

1,1-dichloroethane

Dichloromethane
Trichloromethane
1,1,1-trichloroethane
Tetrachloromethane
1,2-dichloroethane
Trichloroethene
Cis-1,2-dichloroethene
trans-1,2-dichloroethene

b) The following components are analyzed at a column oven temperature of 150°C and a valve back-flush at 0.30 minutes:

Tetrachloroethene
1,2-dibromoethane

c) The following component is analyzed at an oven temperature of 25°C and a value back-flush at 0.35 minutes:

Freon 113

II. Summary

Whole air is withdrawn from a sample container using a ground glass gas syringe, 30 to 50 ml, and transferred to a sample loop injection valve on a gas chromatograph. (Chromatographic separations are made using fused silica capillary columns.) A 10-port switching valve allows timed sample cutting and back-flush. Chromatographic separations are made isothermally. A combination of column oven temperature and valve switch timing allows specific halogenated components to be analyzed in a repeatable manner. C_1-C_2 halogenated hydrocarbons eluting from the chromatographic column are detected and quantified by an electron capture detector. Components

are identified based on retention times. Positive identification or confirmation requires the use of an appropriately configured gas chromatograph/mass spectrometer.

III. Interferences/Limitations

Components that co-elute with the species of interest will cause misidentification and/or inaccurate quantification. The use of a selective dector like the electron capture detector minimizes co-elution interference as does the high resolution fused silica capillary column chosen for analytical separation.

Sample integrity is very important to accurate analyses of low concentration components expected in the ambient air. Care must be taken in sample collection and containment to avoid contamination and degradation.

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 102

June 1, 1987

Laboratory Analytical Procedure For the Measurement Vinyl Chloride Concentrations in Landfill Gas Using Gas Chromatography

I. Introduction

Landfill gas samples can be withdrawn from a gas collection system, bore hole, well or surface crack at the site using an evacuated steel or glass container or a pump to fill a Tedlar sample bag. The sample is analyzed in the laboratory using gas chromatograpy with a photoionization detector. Certified gas standards of approximately 1 ppm vinyl chloride are used as working standards for quantifying samples using the external standard method of calculation.

II. Summary

Gas samples are transferred from the sample container to the gas chromatograph sample valve inlet using a ground glass syringe of appropriate size (30 to 100 ml). Two valves, a 6-port and 10-port are plumbed so that sample loop injection, pre-column, analytical column and pressure switch flow control are accomplished to give the proper separation of vinyl chloride and from the other components in landfill gas. A pre-column of n-octane porasil C (3'x 1/8" nickel) is timed to allow vinyl chloride to pass through it and on to the

analytical column. The pre-column is then switched to black-flush and the analytical column (6' x 1/8" stainless steel), chromosil 310, 800/100 mesh separates vinyl chloride.

III. Interference/Limitations

Components that co-elect with vinyl chloride will cause misidentification and/or inaccurate quantification. The photoionization detector will give response to many components but the choice of column materials will limit the components reaching the detector. No interference has been found under the conditions of analysis.

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 103

June 1, 1987

Laboratory Analytical Procedure For the Measurement of Methane, Carbon Monoxide and Carbon Dioxide Concentrations in Landfill Gas Using Gas Chromatography

I. Introduction

Landfill gas samples can be withdrawn from a gas collection system, bore hole, well or surface crack at the site using an evacuated steel or glass container or a pump to fill a Tedlar sample bag. The sample is analyzed in the laboratory using gas chromatograpy with a thermal conductivity detector. Certified gas standards of approximately 5% methane, carbon monoxide and 14% carbon dioxide are used as working standards for quantifying samples using the external standard method of calculation. Working standards are calibrated with NBS, SRM's where possible.

II. Summary

Gas samples are transferred from the sample container to the gas chromatograph sample valve inlet using a ground glass syringe of appropriate size (30 to 100 ml). Two valves, a 6-port and 10-port are plumbed so that sample loop injection, pre-column, analytical column and pressure switch flow control produce the proper separations of methane, carbon monoxide and carbon dioxide from the other components in landfill gas. A

pre-column of Porapack Super Q (3'x 1/8" nickel) is timed to allow nitrogen, oxygen, methane, carbon monoxide and carbon dioxide to pass through and on to the analytical column. The pre-column is then switched to black-flush and the analytical column (3' x 1/8" stainless steel), Carbosphere, 80/100 mesh separates methane, carbon monoxide and carbon dioxide.

III. Interference/Limitations

Components that co-elect with methane, carbon monoxide and carbon dioxide will cause misidentification and/or inaccurate quantification. The thermal conductivity detector will give response to most any gas other than the carrier, helium, but the choice of column materials (Super Q and Carbosphere) will limit the components reaching the detector. No interference has been found under the conditions of analysis.

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 104

June 1, 1987

Laboratory Analytical Procedure For the Measurement of Nitrogen and Oxygen Concentrations in Landfill Gas Using Gas Chromatography

I. Introduction

Landfill gas samples can be withdrawn from a gas collection system, bore hole, well or surface crack at the site using an evacuated steel or glass container or a pump to fill a Tedlar sample bag. The sample is analyzed in the laboratory using gas chromatograpy with a thermal conductivity detector. Ambient atmosphere is used as a working standard for quantifying samples using the external standard method of calculation.

II. Summary

Gas samples are transferred from the sample container to the gas chromatograph sample valve inlet using a ground glass syringe of appropriate size (30 to 100 ml). Two valves, a 6-port and 10-port are plumbed so that sample loop injection, pre-column, analytical column and pressure switch flow control produce the proper separation of nitrogen from oxygen and from the other components in landfill gas. A pre-column of Porapack Super Q (3'x 1/8" nickel) is timed to allow nitrogen, and oxygen to pass through it and on to the analytical column. The pre-column is then switched to black-flush

and the analytical column (5' x 1/8" stainless steel), Molecular Seive 5A, 80/100 mesh separates nitrogen and oxygen.

III. Interference/Limitations

Components that co-elect with nitrogen and oxygen will cause misidentification and/or inaccurate quantification. The thermal conductivity detector will give response to most any gas other than the carrier, helium, but the choice of column material (Super Q and Carbosphere) will limit the components reaching the detector. Argon will co-elute with oxygen under the conditions of analysis.

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 105

METHANE AND TOTAL NON-METHANE HYDROCARBONS

I. Introduction

Total Combustion Analysis (TCA) is an analytical instrumentation system developed in the SCAQMD laboratory for analysis of CO, CH_4, CO_2 and non-methane hydrocarbons in samples taken from various combustion based pollution control emission systems. When combined with a flame ionization detector (FID), the TCA system, now designated TCA/FID, becomes an effective instrument for analysis of low level CH_4 and non-methane hydrocarbons as might be expected in 3-way catalyst treated auto exhaust. The TCA/FID system is described in the Federal Register under Method No. 25 and is the EPA's Method of choice for determining "the percentage reduction of VOC (volatile organic carbon) emissions achieved by add-on emission control devices" for autos and light duty trucks. A description of the TCA/FID method as applied to auto exhaust emission analysis is described in this procedure.

II. Summary

The Total Combustion Analysis (TCA/FID) instrumental system offers the sensitivity and range necessary for analyzing auto exhaust emission samples for methane and non-methane hydrocarbons. Methane, carbon monoxide, carbon dioxide and total non-methane hydrocarbons are separated chromatographically and converted to methane for detection by flame ionization. Typical ambient

atmospheric levels of methane and non-methane hydrocarbons in the range of 2 to 8 ppm are easily determined in background samples by this method. Column temperatures are controlled using ice water and boiling water immersion baths. Separations of CO, CH_4 and CO_2 are made while the carrier flow is in the forward direction and the column is immersed in ice water. Non-methane hydrocarbons are obtained by immersing the column into boiling water. An example chromatogram with peak identification is shown in Figure A.

III. Theory of Operation

The total combustion analysis (TCA) system is designed to separate and detect four species of carbon: CO, CH_4, CO_2 and total non-methane hydrocarbons in gaseous samples. A two ml gaseous sample aliquot injected into the TCA instrument is chromatographically separated into the four carbon species. Each in turn is combusted to CO_2 and then reduced to methane using hopcolite and nickel catalysts, respectively. A flame ionization detector (FID) having a sensitivity <1 ppm methane and liner range $\geq 10^{+6}$ ppm methane is used to detect the methane derived from the four carbon species. The benefit of converting all carbon to methane for quantification is that standardization can be performed using only methane. FID response factors are not needed for what was initially a hydrocarbon mixture, and carbon monoxide and carbon dioxide become detectable as methane by FID.

IV. Description of Instrumentation

The TCA/FID system is built around a Hewlett Packard 5700 series Gas Chromatograph (GC with a FID (flame ionization detector). The GC oven is used to house two

6-port valves and connecting tubing. The oven temperature is maintained at 140 °C. The 6-port valves allow the oxidation catalyst (Hopocolite) and the reduction catalyst (nickel) to be switched in and out of the carrier flow independently so their conversion efficiencies can be determined. A diagram of the TCA/FID system is shown in Figure B. The GC mainframe houses the detector, electrometer and temperature controls. An injection system and chromatographic column designed and constructed in this laboratory are mounted on the outside of the GC mainframe. Sample injection and direction of analytical column carrier flow are controlled using a 10 port valve (Carle micro volume). The valve and sample loop are maintained at 150 °C by a Carle valve oven. Switching is done with a Carle actuator motor and valve minder. Figure C shows plumbing of the 10 port valve. The exterior mounted 6' L. x 1/8" O.D. stainless steel combination column is packed first with 1 1/2' of 10% SF96 followed by 4 1/2' of 80/100 mesh Porapak Q.

TABLE A

INSTRUMENT OPERATING PARAMETERS

Analytical Column:	Exterior mounted, 6' L. x 1/8" O.D. stainless steel packed in two sections. 1) The first section is 1 1/2' of 800/100 mesh Cromosorb W coated with 10% SF-96. 2) The second section is 4 1/2' of 80/100 mesh Parapak Q.
Temperatures: Analytical Column:	Controlled by immersion of the column in ice water and boiling water baths according to the proper timing sequence.
Detector:	250 °C
Oxidation Catalyst:	650 °C
Reduction Catalyst:	350 °C
10 port valve oven:	150 °C
GC oven:	140 °C
Heated transfer lines:	105 °C
Carrier:	Helium, 25 ml/min
Air:	180 ml/min
Hydrogen:	24 ml/min
Oxidation Catalyst:	A 12" L. x 1/4" O.D. inconel tube is packed with 6" of granular Hopcolite obtained from Mine Safety and Appliance Co. The tube ends are plugged with Quartz wool.
Reduction Catalyst:	A 12" L. x 1/4" O.D. inconel tube is packed with 6" of

firebrick 40/60 mesh coated with nickel nitrate 10% by weight. Nickel nitrate is dissolved in DI water. Firebrick is stirred into the solution and heated on a hot plate to expel the water. Final heating to dryness is done in an oven at 200 °F. The ends of the inconel tube are plugged with Quartz wool.

Sample loop: 2 ml stainless steel heated at 150 °C.

TABLE B

TIMING SEQUENCE

Step No.	Time	Position	Description
1	0 min.	2	Immerse the analytical column in ice water.
2	3 min.	1	Injected 20 mls of sample, standard or blank N_2 through the 2 ml sample loop and then switch the 10 port valve to position 1.
3	13 min.	2	Remove the ice water bath from the analytical column. Switch the 10 port valve to position 2 and immediately immerse the analytical column in boiling water.
4	17 min.	2	Remove the boiling water bath and immerse the analytical column in ice water, beginning the sequence again at step 1 and time zero.

CALCULATIONS

Total non-methane hydrocarbons are quantified by integrating a response vs. time curve from a sample and comparing areas with a standard mixture of ethane (25 ppm) and isopentane (10 ppm).

$$H = \frac{C_{std} \times R_u - RB}{R_{std} - R_B}$$

H = total non-methane hydrocarbons as ppm methane
C_{std} = concentration of standard as ppm methane
R_u = response from sample (area)
R_{std} = response from standard (area)
R_B = response from blank (area)

Methane is determined by comparing peak heights of the sample with a standard of 100 ppm concentration.

$$\text{Methane (ppm)} = \frac{C_{std} \times R_u}{R_{std}}$$

C_{std} = concentration of the standard methane in ppm
R_u = response of the sample (peak height)
R_{std} = response of the standard (peak height)

Compound	Detectable Limits (PPMV) Lower	Upper
Methane	1	1000
Non-methane hydrocarbons	1	100
Carbon dioxide	2	5000
Carbon monoxide	1	1000

SUMMARY OF THE ERT
WESTERN REGIONAL LABORATORY METHODS

Method No. 107

June 1, 1987

Laboratory Analytical Procedure For the Measurement Benzene Concentrations in Landfill Gas Using Gas Chromatography

I. Introduction

Landfill gas samples can be withdrawn from a gas collection system, bore hole, well or surface crack at the site using an evacuated steel or glass container or a pump to fill a Tedlar sample bag. The sample is analyzed in the laboratory using gas chromatograpy with a photoionization detector. National Bureau of Standards, Standard Reference Material, benzene is used as a working standard for quantifying samples using the external standard method of calculation.

II. Summary

Gas samples are transferred from the sample container to the gas chromatograph sample valve inlet using a ground glass syringe of appropriate size (30 to 100 ml). Two valves, a 6-port and 10-port are plumbed so that sample loop injection, pre-column, analytical column and pressure switch flow control are accomplished to give the proper separation of benzene from other components in landfill gas. A pre-column of DB-1 (15' x 0.53 mm capillary) is timed to allow benzene to pass through it and on to the analytical column. The pre-column is then

switched to black-flush and the analytical column (25 M x 0.53 mm capillary) DB-1, separates benzene.

III. Interference/Limitations

Components that co-elute with benzene will cause misidentification and/or inaccurate quantification. The photoionization detector will give response to many components but the high resolution achieved by the choice of a capillary column will limit interference. No interference has been found under the conditions of analysis.

SECTION 4

4A GAS STREAM CHARACTERIZATION RESULTS

ANALYTICAL REPORTS AND QUALITY ASSURANCE SUMMARIES
LANDFILL GAS SAMPLES

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Well Gas Samples

P.O. No.:	EE-357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt
Date Received :	October 20, 1988
Date Analyzed :	October 20, 1988

Sample Concentration in ppmv

ENSR Lab No.:	82958-1
Sample I.D. No.:	LFG #1
Methane	222000
NMHC	4660
Total Hydrocarbons	226660

Sample Concentration in %, v/v

Nitrogen	50.6
Oxygen	5.45
Methane	22.2
Carbon Dioxide	22.8

Sample Concentration in ppbv

Benzene	4300
Vinyl chloride	750
Dichloromethane	<60
Trichloromethane	6.75
1,1,1-trichloroethane	<10
Tetrachloromethane	<5
1,2-dichloroethane	<20
Trichloroethene	407
Tetrachloroethene	720
1,2-dibromoethane	<1
Toluene	7600
Total Xylenes	11000

* NMHC is total non-methane organics measured and reported as methane.

Fred Thomas
Laboratory Manager

ENSR

QUALITY ASSURANCE SUMMARY
(Duplicates Analyses)

P.O. #: EE-357-70-1032-01
ENSR Project #: 8700-004-306
M&A Project #: 70-1032-01
Site: Hewitt

Well Gas Sample

Date Received: October 20, 1988
Date Analyzed: October 20, 1988

Component	Duplicates Analyses Run #1	Run #2	Mean Conc.	% Diff. from Mean
	(Concentration, %)			
Nitrogen	50.623	50.685	50.654	0.061
Oxygen	5.442	5.457	5.449	0.14
Carbon Dioxide	22.683	23.016	22.849	0.73
NMHC	4715	4616	4666	1.0
	(Concentration in ppb)			
Vinyl Chloride	763	730	746.5	2.2
Dichloromethane	38.553	38.737	38.645	0.24
Trichloromethane	6.825	6.680	6.752	1.1
1,1,1-trichloro-ethane	<10	<10	---	---
Tetrachloromethane	<5	<5	---	---
1,2-dichloroethane	<20	<20	---	---
Tetrachloroethene	720.268	719.935	720.102	0.023
1,2-dibromoethane	<1	<1	---	---
Total Xylenes	11222	10712	10967	2.3

A set of 1 sample, laboratory number 82948-1 was analyzed for Calderon components. Agreement between duplicate analyses is a measure of precision and is shown above in the column "% Difference from Mean". Duplicate analyses are an important part of ENSR's quality assurance program. The average % Difference from Mean for 9 duplicate measurements from the sample set of 1 well gas sample is 0.87 %.

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Well Gas Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received :	October 21, 1988
Date Analyzed :	October 21, 1988

Sample Concentration in % v/v

ENSR Lab No.:	82958-1
Sample I.D. No.:	LFG #2

Nitrogen	50.1
Oxygen	5.36
Methane	22.6
Carbon Dioxide	20.8

Sample Concentration in ppbv

Benzene	3360
Vinyl chloride	730
Dichloromethane	<60
Trichloromethane	6.19
1,1,1-trichloroethane	<10
Tetrachloromethane	<5
1,2-dichloroethane	<20
Trichloroethene	448
Tetrachloroethene	446
1,2-dibromoethane	<1

Fred Thomas
Laboratory Manager

ENSR

QUALITY ASSURANCE SUMMARY
(Duplicates Analyses)

P.O. #: EE 357-70-1032-01
ERT Project #: 8700-004-306
M&A Project #: 70-1032-01
Site: Hewitt Landfill

Well Gas Sample

Date Received: October 21, 1988
Date Analyzed: October 21, 1988

Component	Duplicates Analyses Run #1	Run #2	Mean Conc.	% Diff. from Mean
	(Concentration in %)			
Nitrogen	50.078	50.049	50.064	0.029
Oxygen	5.356	5.358	5.357	0.019
Methane	22.531	22.752	22.642	0.49
	(Concentration in ppb)			
Benzene	3380	3352	3366	0.42
Vinyl Chloride	767	702	734.5	4.4
Dichloromethane	39.706	39.429	39.568	0.35
Tetrachloroethene	426.7	464.5	445.6	4.2
1,2-dibromoethane	<1	<1	---	---

A set of 1 sample, laboratory number 82958-1 was analyzed for Calderon components. Agreement between duplicate analyses is a measure of precision and is shown above in the column "% Difference from Mean". Duplicate analyses are an important part of ERT's quality assurance program. The average % Difference from Mean for 7 duplicate measurements from the sample set of 1 well gas sample is 1.4 %.

FIELD SAMPLING LOGS
LANDFILL GAS SAMPLES

MANDEVILLE & ASSOCIATES
environmental engineering services

LFG 1

FIELD SAMPLING LOG

DATE: 10-14-88

M & A PROJECT NO. 70-1032-01

LOCATION: Hewitt Landfill

TECHNICIAN: S. Cooper

WEATHER CONDITION: Sunny Hazy

BAROMETRIC PRESSURE START: 29.89

BAROMETRIC PRESSURE FINISH: 29.89

WEAHER STATION: El Monte ADAS.

INSTRUMENTS USED & SERIAL #'S: Gastech N.P. 204 M&A # 39 # 801001
Gastech IP 204 M&A # 33 004 0021
Bradford TO-N2 #6446

LOCATION NO.	CH_4 PPM	% LEL	CH_4 % VOLUME	% O_2	EVACUATION TIME		BAG I.D. NO.	TESTING TIME
Plant #1 Flare inlet	O.R.	O.R.	23	6	1:43	1:53	W-1-Hw	2:05pm

REVIEWED BY: [signature]

DATE: 10-25-88

FORM 18

MANDEVILLE & ASSOCIATES
environmental engineering services

LFG 2

FIELD SAMPLING LOG

DATE: 10-20-88
LOCATION: Hewitt Landfill
TECHNICIAN: T. Mercer
WEATHER CONDITION: Haze
BAROMETRIC PRESSURE START: 29.93
BAROMETRIC PRESSURE FINISH: 29.93
WEAHER STATION: El Monte AQAS.
INSTRUMENTS USED & SERIAL #'S Gastech NP 204 M&A#39 801001
Gastech EI 204 M&A#303 0040021
Bacharach TD-2N #446

M & A PROJECT NO. B-1032-01

LOCATION NO.	CH_4 PPM	% LEL	CH_4 % VOLUME	% O_2	EVACUATION TIME		BAG I.D. NO.	TESTING TIME
Plant/Flare Inlet #2	0.2.	0.12	24	6	9:50	1000	W-2-HW	10:20

REVIEWED BY: [signature] DATE: 10-25-88

FORM 18

GAS SAMPLING AND MONITORING
QUALITY ASSURANCE/QUALITY CONTROL

EQUIPMENT SET-UP

Before going in the field, the sampling pump batteries were checked, and spare batteries were taken on site. Pump operation was tested. All tubing and fittings were connected and checked to ensure leak-tight seals.

TESTING PROCEDURES

The following ARB guidelines developed for HSC 41805.5 in regard to field sampling and monitoring have been met:

- Samples were collected using a portable battery-operated sampling pump and equipment constructed and operated according to specifications in the ARB guidelines. One 10-liter bag sample was collected from the flare inlet on two separate days. The date, time, and sampling location for each sample was recorded on field sampling logs and sample tags, following the sampling procedures checklist.

- Each gas sample was analyzed for oxygen percentage, to determine which instrument was best suited to measure for total organics as methane. Each reading was recorded on a field sampling log. Readings were evaluated to ensure the oxygen percentage met the operating parameter specified for the instrument.

- Using a portable gas monitoring instrument appropriate for the oxygen concentration of the sample, the concentration of total organic compounds (TOCs), measured as methane, was determined in each bag. Readings were recorded on the field sampling log.

QUALITY ASSURANCE/QUALITY CONTROL MEASURES

Meter Calibration

Meters were calibrated prior to use, in accordance with manufacturer's instructions. Meter calibration was checked after use to determine any calibration variance. Calibration logs were maintained to record both calibration and calibration checks, prior to, and upon completion, of testing.

Acceptance Testing

Acceptance testing is performed on a random basis during each sampling period to establish contamination levels per Calderon detection and compound levels. In addition, testing is performed as analytical historical results indicate. The sampling unit is flushed with purified nitrogen after each use. Intake and discharge ports are sealed off with rubber caps when not in use.

Tedlar Bag Preparation and Recordkeeping Procedures

Tedlar bags were prepared in accordance with Calderon guidelines, i.e., each bag was purged three times with nitrogen and inspected for any indication of leakage prior to field use. Each bag has been assigned a unique identification number which will be retained until the bag is permanently removed from service. A log is maintained for each bag to monitor its preparation and test history.

Sample Identification

Each sample collected has an identification tag with the following information:

Technician
Date
Time
Location from which the sample was taken
Bag number

Sample Custody Transfer

A chain-of-custody record accompanies the bag samples at all times. Each time a bag changes hands, the custody sheet must be signed with time of custody transfer recorded. Laboratory personnel also record the condition of the sample (full, three-fourths full, one-half full, one-fourth full, or empty).

Sample Handling

All bag samples were kept in light-sealed containers to avoid photochemical reactions.

Quality Control Samples

When required by the APCO, field blanks are included in each batch of samples turned in for laboratory analysis as a QA/QC check on the laboratory performing the tests. These samples are noted on the field monitoring log, but are not identified to laboratory personnel.

Reporting Field Results

All results from testing with the FID or other approved instrumentation were recorded on field sampling logs.

MAINTENANCE

Sampling pump batteries and spares are tested regularly to ensure they are fresh. Pumps are cleaned and inspected annually or as operating conditions require. All Tedlar bags are maintained after each use per guideline requirements.

The system was leak-checked prior to and after each field use. The pump and tubing were flushed with purified nitrogen after each use, then sealed.

GAS SAMPLING QUALITY ASSURANCE DOCUMENTATION

LFG 1	LFG 2

Bag Purging/Inspection Checklists
Bag Historical Logs
Sample Chain-of-Custody Records
Monitoring Instrument Calibration Logs

Day 3

Site 4A

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 4A

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear

SAMPLER NUMBER: 428

PUMP NUMBER: [1] [2]

PROJECT / SITE: 701032-01 HEWITT L.F. SAMPLER LOCATION: L24th drain c/b

BAG NUMBER: TB-34-HW RUN DATE: 11/16/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO

FLOW SETTING: 17cc

CHRONTROLLER PROGRAMMED ✓ YES ____ NO

(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)

BAG INSTALLED BY: T. VASQUEZ DATE: 11/16/88

BAG VALVE OPEN: [yes] FLOW AT START: 17cc

TIME (ACTUAL): 1005 CLOCK (PST): 1005 (MUST BE WITHIN 3 MINUTES)

SAMPLER LOCK SECURED ✓ YES ____ NO

COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/17/88

BAG VALVE CLOSED: [yes] FLOW AT END: 17cc

BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]

TIME (ACTUAL): 940 CLOCK (PST): 940

SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)

SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]

REVIEWED BY: [illegible] FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 4A

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/15/88 START TIME: 1420 COMPLETION TIME: 1430

PROJECT NO.: 70-1032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-34-HW DATE IN SERVICE: 11/16/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES.

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-34-HKI

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/15/88	1430	T. VASQUEZ	YES	428	1	70-10320-01	11/16/88	11/17/88	

DAY 3 SITE 44

FORM17 3/17/87

83228-A3

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-34-HW	T. VASQUEZ	11/15	1430	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-34-HW	428-1	11/17	940					L24 DRAIN C/G
								PRIMARY

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. VASQUEZ	11/15	1430	T. VASQUEZ
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine C. Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3

LABORATORY NAME: EZL

COMMENTS:

DAY 3 SITE 4A

FORM 7A

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

4C-102

Day 3

Site 4B

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 4B

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/15/88 START TIME: 1430 COMPLETION TIME: 1440

PROJECT NO.: 70-1032-01

TECHNICIAN: T VASQUEZ

BAG I.D. NO.: TB-35-HU1 DATE IN SERVICE: 11/16/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 4B

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: SUNNY & CLEAR
SAMPLER NUMBER: 428
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: 70-1032-01 SAMPLER LOCATION: L24th Co/Lo
BAG NUMBER: T3-35-HW RUN DATE: 11/16/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE OPEN: [YES] FLOW AT START: 17cc
TIME (ACTUAL): 1010 CLOCK (PST): 1010 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS:

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/12/88
BAG VALVE CLOSED: [YES] FLOW AT END: 17cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 945 CLOCK (PST): 945
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [illegible] FILED BY:

FORM 8A 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-35-HKL

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/15/88	1440	T. VASQUEZ	YES	428	2	70-1032-01	11/16/88	11/17/88	

DAY 3 SITE 4B

4C-106

FORM17 3/17/87

83228-14

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-35-HW	T. VASQUEZ	11/15	1440	T. VASQUEZ

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. Vasquez	11/15	1440	T. Vasquez
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-35-HW	428-2	11/17	945					24th Co/Lo
								DUPLICATE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	ERT
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine P. Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

DAY 3 SITE 4B

FORM 7A

4C-107

4D WIND MONITORING RESULTS

Wind Speed

24-Hour Sampling Period

MANDEVILLE & ASSOCIATES
THREE DAY MONITORING STUDY

Data: Wind Speed (MPH)
Station: HEWITT LANDFILL
Period: NOV, 1988

Clock Time

Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MAX	HR.	AVE.
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
9											3	3	3	4	5	5	3	3	2	1	1	1	1	1	5	14	1.50
10	1	1	1	1	2	2	2	1	2	2															2	4	0.63
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00
15											3	3	4	4	5	5	4	4	5	3	2	3	2	2	5	14	2.04
16	2	2	2	2	2	2	1	3	3	3	2	3	3	4	4	5	3	2	2	2	1	1	1	2	5	15	2.38
17	2	2	2	2	3	3	2	2	4	7															7	9	1.21
AV	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	1	1	1	1	1			1.55
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Wind Direction

24-Hour Sampling Period

MANDEVILLE & ASSOCIATES
THREE DAY MONITORING STUDY

Data: Wind Direction (16 point scale)
Station: HEWITT LANDFILL
Period: NOV, 1988

Clock Time

Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	6	6	6	7	6	7	6	5	6	6	6	14	14	15
10	15	14	3	1	2	15	14	15	12	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	8	6	6	6	6	7	7	11	13	14	13	14	15	1
16	14	14	14	13	14	14	15	14	13	12	12	7	7	6	7	7	7	14	16	16	14	1	14	14
17	6	13	15	14	14	15	14	13	15	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Wind Speed and Direction Frequency Distribution
24-Hour Sampling Period

MANDEVILLE & ASSOCIATES
THREE DAY MONITORING STUDY

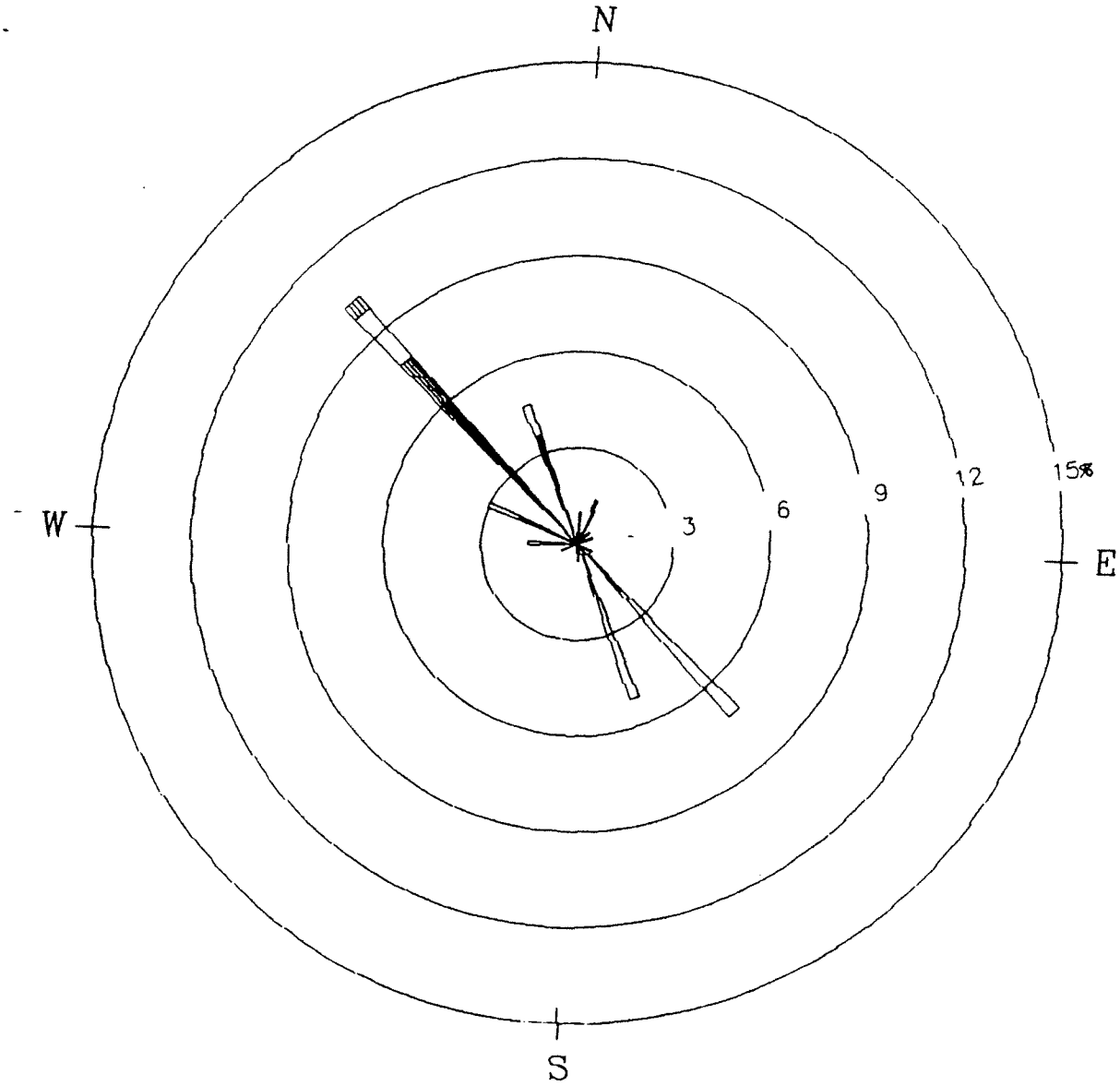
Data: Wind Rose
Station: HEWITT LANDFILL
Period: NOV 09, 1988 - NOV 17, 1988
Hours: 10 - 09

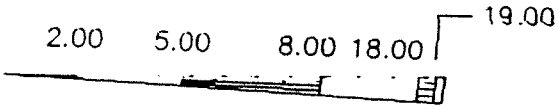
Wind Speed and Direction
Frequency Distribution

Direction	Wind Speed (MPH) Group 0-2	3-5	6-8	9-18	19+	TOT	%TOT	AVE SPEED
16	1.0	0.0	0.0	0.0	0.0	2.0	1.04	2.00
1	1.5	0.0	0.0	0.0	0.0	3.0	1.56	1.33
2	0.5	0.0	0.0	0.0	0.0	1.0	0.52	2.00
3	0.5	0.0	0.0	0.0	0.0	1.0	0.52	1.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5	0.0	0.5	0.0	0.0	0.0	1.0	0.52	3.00
6	2.0	5.2	0.0	0.0	0.0	14.0	7.29	3.07
7	0.5	4.6	0.0	0.0	0.0	10.0	5.21	3.80
8	0.0	0.5	0.0	0.0	0.0	1.0	0.52	3.00
9	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11	0.0	0.5	0.0	0.0	0.0	1.0	0.52	4.00
12	1.0	0.5	0.0	0.0	0.0	3.0	1.56	2.33
13	2.0	1.0	0.0	0.0	0.0	6.0	3.13	2.67
14	7.8	2.0	0.5	0.0	0.0	20.0	10.42	2.20
15	3.6	1.0	0.0	0.0	0.0	9.0	4.69	1.89
MSG	62.0	0.0	0.0	0.0	0.0	120.0	62.50	0.00
TOT	83.0	16.0	0.5	0.0	0.0	192.0	100.00	2.02

Wind Rose

24-Hour Sampling Period





WIND SPEED CLASS BOUNDARIES

MPH

NOTES:
DIAGRAM OF THE FREQUENCY OF OCCURRENCE FOR EACH WIND DIRECTION. WIND DIRECTION IS THE DIRECTION FROM WHICH THE WIND IS BLOWING. EXAMPLE – WIND IS BLOWING FROM THE NORTH 1.0 PERCENT OF THE TIME.

WINDROSE

HEWITT LANDFILL
PERIOD: NOV 1988

Wind Speed and Direction Frequency Distribution
Drainage Hours

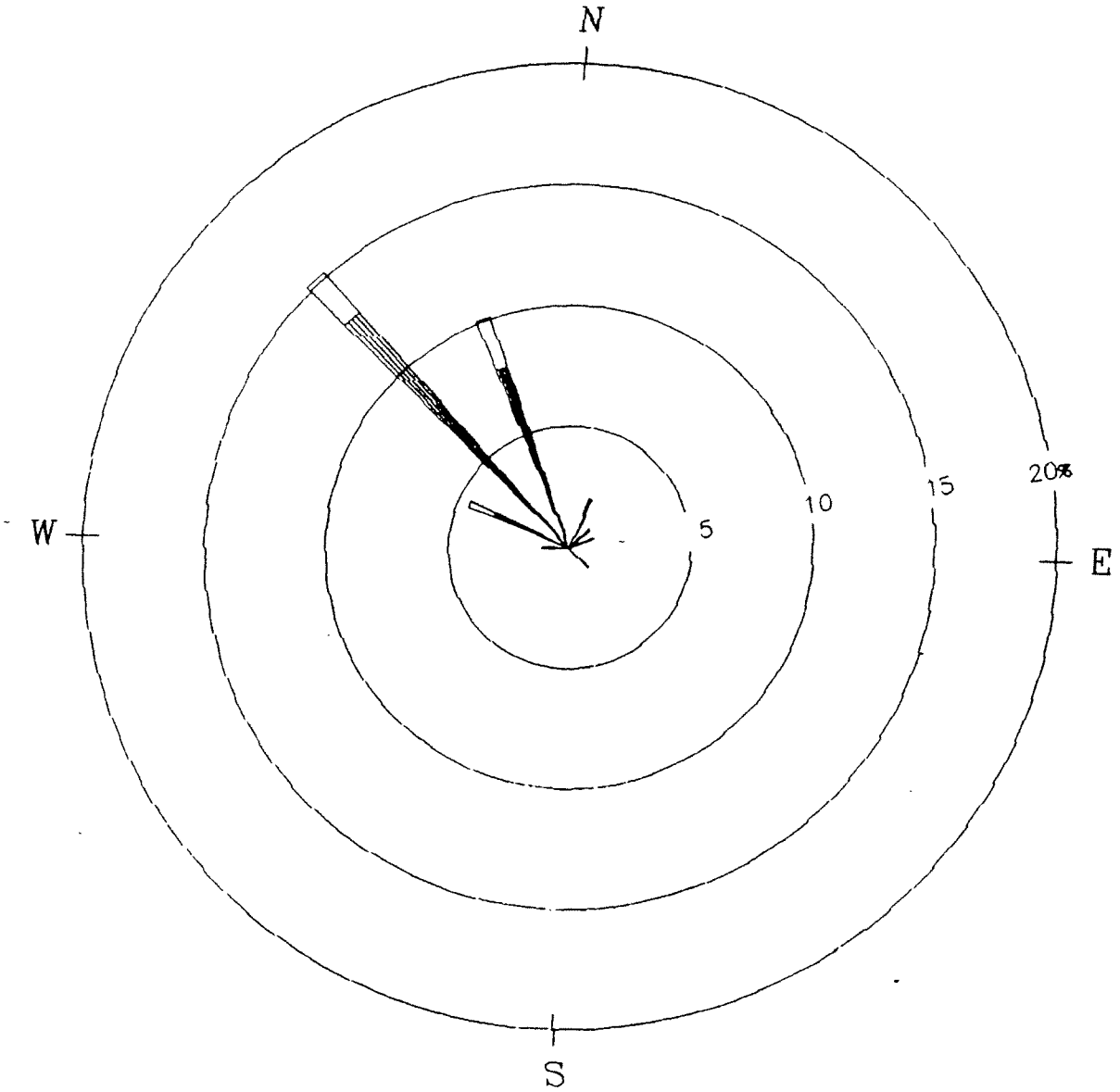
MANDEVILLE & ASSOCIATES
THREE DAY MONITORING STUDY
DRAINAGE

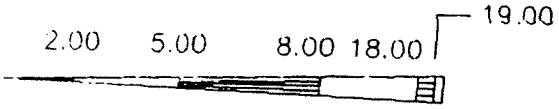
Data: Wind Rose
Station: HEWITT LANDFILL
Period: NOV 09, 1988 - NOV 17, 1988
Hours: 22 - 08

Wind Speed and Direction
Frequency Distribution

Direction	Wind Speed (MPH) Group 0-2	3-5	6-8	9-18	19+	TOT	%TOT	AVE SPEED
16	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
1	2.2	0.0	0.0	0.0	0.0	2.0	2.27	1.50
2	1.1	0.0	0.0	0.0	0.0	1.0	1.14	2.00
3	1.1	0.0	0.0	0.0	0.0	1.0	1.14	1.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6	1.1	0.0	0.0	0.0	0.0	1.0	1.14	2.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12	1.1	0.0	0.0	0.0	0.0	1.0	1.14	2.00
13	3.4	1.1	0.0	0.0	0.0	4.0	4.55	2.25
14	13.0	2.2	0.0	0.0	0.0	14.0	15.91	1.93
15	7.9	2.2	0.0	0.0	0.0	9.0	10.23	1.89
MSG	62.0	0.0	0.0	0.0	0.0	55.0	62.50	0.00
TOT	94.0	5.6	0.0	0.0	0.0	88.0	100.00	0.91

Wind Rose
Drainage Hours





WIND SPEED CLASS BOUNDARIES

MPH

NOTES:
DIAGRAM OF THE FREQUENCY OF OCCURRENCE FOR EACH WIND DIRECTION. WIND DIRECTION IS THE DIRECTION FROM WHICH THE WIND IS BLOWING. EXAMPLE - WIND IS BLOWING FROM THE NORTH .0 PERCENT OF THE TIME.

WINDROSE

HEWITT LANDFILL
PERIOD: NOV 1988

WIND MONITORING SYSTEM
QUALITY ASSURANCE/QUALITY CONTROL

EQUIPMENT SET-UP AND OPERATIONAL PROCEDURES

Once site monitoring location(s) have been determined by the staff meteorologist on a topographic map, equipment is prepared for shipping and use.

The wind recorder is housed in a fiberglass case, as are the wind vane and anemometer cups. Care must be taken in handling all wind equipment due to its sensitive nature.

Each of the following equipment items is collected and checked:

1. Tripod stand and tie-down stakes, including tripod feet
2. Recorder housing box
3. 50-foot sensor cable
4. 10-foot dc power cable
5. 12-V dc deep-cycle marine batteries, fully charged
6. Case containing anemometer cups, wind pointer, wind speed sensor and wind direction sensor
7. Alignment crossarm
8. Allen wrench set (complete)
9. Sledgehammer
10. Recorder and battery enclosure with tie-down stakes
11. Chain and padlocks
12. Torpedo level
13. Shipping case
14. Compass
15. Ladder.

Once this has been completed, the specified test areas are located on site. If ambient air sampling will be conducted concurrently with wind monitoring, the sampling station site description form must be completed. First, the tripod stand legs are opened and secured, and the feet attached to the legs, leaving them loose temporarily in case of a later need for leveling. The direction vane and anemometer cups are installed on their respective sensors, and the sensors attached to the crossarm. The crossarm is installed on the mast and secured. The mast is then raised and secured. The tie-down cables are tightened and the crossarm adjusted to the desired height. Once this is completed, the crossarm and wind speed cups are aligned to true north, using a compass. The proper angle of declination is used for each specific job site. The input cable is attached to the crossarm sensors, and the other end connected to the recorder housing wind speed/wind direction input fitting.

Next, the tripod feet are secured, adjusting the level as needed. All fittings on the feet are tightened, being careful not to shift the crossarm alignment. The tie-down stakes are driven through the holes provided in the feet. Using the torpedo level, the level of the mast is checked and the feet adjusted as necessary.

The recorder and battery are placed in the enclosure box. The battery is connected to the recorder, using the 10-foot dc power cable and cannon plug. The recorder is turned on, and the chart paper adjusted for the proper duration of time. The positions of all internal switches are verified. The date, project number, location, technician, and start time are recorded on the chart paper.

After making and checking all connections, the recorder is turned on. The shaft of the wind speed transmitter is spun rapidly, and the wind speed recorder stylus (left side of the recorder) moves slowly upscale. The wind direction shaft is rotated slowly and the wind direction stylus (right side of the recorder) moves across the chart. Clockwise rotation of the shaft should cause the stylus to move upscale, and counterclockwise rotation of the shaft should cause the stylus to move downscale. The unit is now set to operate unattended.

The wind speed/direction instrumentation checklist is then completed. After ensuring that the recorder is operating properly the recorder box is closed and locked, and the enclosure chained and padlocked to the tie-down stakes.

QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

Calibration of the recorder units is checked before and after each field use. The procedure consists of checking all specified test points and ensuring proper voltages are present. A calibration checklist is also completed during this process.

During the calibration check prior to each field use, all sensors are inspected to see that there are no restrictions or bindings in the bearings. This is accomplished by attaching the anemometer cups and directional vane to the sensors and spinning them by hand to ensure ease of turning.

All voltages and settings are calibrated annually, incorporating the use of Climatronics F460 calibration and test fixtures. These include a 600 rpm motor to create the equivalent of 32.7 mph, and a test fixture for the directional sensor to ensure proper correlation to actual direction. Sensor bearings are testing using torque meters supplied for the individual sensors.

WIND MONITORING INSTRUMENTATION QUALITY ASSURANCE CHECKLISTS

MANDEVILLE & ASSOCIATES
environmental engineering services

CLIMATRONICS WIND SPEED/DIRECTION INSTRUMENTATION CHECKLIST

PROJECT NO. 70-1032-01

SITE: Hewitt Landfill

DATE: 10-19-88

TECHNICIAN: T. Mercer / T. Vasquez

RECORDER NO.: 435

MONITORING LOCATION ESTABLISHED & MARKED ON TOPO: YES [X] NO [ ]

LOCATION FREE OF POTENTIAL WIND OBSTRUCTION: YES [X] NO [ ]

EQUIPMENT TESTED PRIOR TO USE: YES [X] NO [ ]

BATTERY FULLY CHARGED & TESTED PRIOR TO USE: YES [X] NO [ ]

ADEQUATE CHART PAPER ON RECORDER: YES [X] NO [ ]

EQUIPMENT ASSEMBLED & MAST RAISED & SECURED: YES [X] NO [ ]

CROSSARM ALIGNED TO TRUE NORTH: YES [X] NO [ ]

RECORDER & BATTERY SECURED: YES [X] NO [ ]

ALL CONNECTIONS MADE: YES [X] NO [ ]

RECORDER FUNCTIONAL: YES [X] NO [ ]

ALL STARTING DATA RECORDED ON CHART PAPER: (SITE, TECH, DATE, TIME, CONDITIONS, RECORDER NO., ETC) YES [X] NO [ ]

ALL EQUIPMENT LOCKED & SECURED: YES [X] NO [ ]

COMMENTS/PROBLEMS: Apparent recorder failure 11-13-88. Recorder pen straightlining on wind direction. Replacement unit 422 installed 11-14-88.

FORM3 3/18/87

MANDEVILLE & ASSOCIATES
environmental engineering services

CLIMATRONICS WIND SPEED/DIRECTION INSTRUMENTATION CHECKLIST

PROJECT NO. 70-1032-01

SITE: Hewitt Landfill

DATE: 11-14-88

TECHNICIAN: T. Vasquez

RECORDER NO.: 422

MONITORING LOCATION ESTABLISHED & MARKED ON TOPO: YES [X] NO [ ]

LOCATION FREE OF POTENTIAL WIND OBSTRUCTION: YES [X] NO [ ]

EQUIPMENT TESTED PRIOR TO USE: YES [X] NO [ ]

BATTERY FULLY CHARGED & TESTED PRIOR TO USE: YES [X] NO [ ]

ADEQUATE CHART PAPER ON RECORDER: YES [X] NO [ ]

EQUIPMENT ASSEMBLED & MAST RAISED & SECURED: YES [X] NO [ ]

CROSSARM ALIGNED TO TRUE NORTH: YES [X] NO [ ]

RECORDER & BATTERY SECURED: YES [X] NO [ ]

ALL CONNECTIONS MADE: YES [X] NO [ ]

RECORDER FUNCTIONAL: YES [X] NO [ ]

ALL STARTING DATA RECORDED ON CHART PAPER: (SITE, TECH, DATE, TIME, CONDITIONS, RECORDER NO., ETC) YES [X] NO [ ]

ALL EQUIPMENT LOCKED & SECURED: YES [X] NO [ ]

COMMENTS/PROBLEMS: Recorder # 435 was found to be "straightening", Replaced with unit # 422

FORM3 3/18/87

4E PREVIOUS GAS MIGRATION MONITORING RESULTS

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.25 GAS: 24 BK. PRRS: 5 VAC: 24 FLOW: .15 TEMP. 1450°

BY JOSE PEÑA

DATE 5-3-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 5-3-88 (cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.5 GAS: 23 BK. PRRS: 6 VAC: 24 FLOW: .15 TEMP. 1450°

BY JOSE PEÑA

DATE 5-10-88

PROBE	% METHANE	TIME	
1	0		HOUSE ⊖
1A	0		OFFICE ⊖
2	0		S.S. ⊖
2A	0		SPECIALS. ⊖
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 5-10-88 Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.25 GAS: 24 BK. PRRS: 6 VAC: 23 FLOW: .12 TEMP. 1475°

BY JOSE TENA DATE 5-17-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIAL S. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 5-17-88 Cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.5 GAS: 25 BK. PRRS: 3 VAC: 22 FLOW: .12 TEMP. 1475°

BY Jose Pena DATE 5-24-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 5-24-88 (com

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.5 GAS: 24 BK.PRRS: 8 VAC: 22 FLOW: .12 TEMP. 147.5°

BY JOSE FERNA DATE 5-3-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0.15		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 5-31-88 (Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 5 GAS: 23 BK.PRRS: 1 VAC: 29 FLOW: .20 TEMP. 1450°

BY JOSE PEÑA DATE 6-7-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	.10		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 6-7-88 (cont)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.75 GAS: 22 BK. PRRS: 1 VAC: 28 FLOW: .20 TEMP. 1425°

BY Jose Pena DATE 6-14-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0.20		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 6-14-88 (Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

SITE: HEWITT

OXY: 4.5 GAS: 22 BK.PRRS: 1 VAC: 30 FLOW: .17 TEMP 1425°

BY Jose Pena DATE 6-21-88

PROBE	% METHANE	TIME		PROBE	% METHANE	TIME	
1	0		HOUSE ~~0~~	22A	0		
1A	0		OFFICE ~~0~~	23	0		
2	0		S.S. ~~0~~	24	0		
2A	0		SPECIALS, ~~0~~	24A	0		
3B	0			25	0		
4	0			25A	0		
4A	0			26	0		
5	0			26A	0		
5A	0			27	0		
6B	0			27A	0		
6C	0			28	0		
6D	0			29B	0		
7	0			29C	0		
7A	0			30A	0		
8A	0			31	0		
9	0			31A	0		
10	0			32	0		
10A	0			32A	0		
11B	0			33	0		
12B	0			34	0		
13A	0			35	0		
13X	0			36B	0		
14B	0			37	0		
14C	0			38	0		
15A	0			38B	0		
16A	0			39	0		
16X	0			40	0		
17A	0			41	0		
18B	0			42	0		
19	0			43	0		
20	0			44A	0		
20A	0			45	0		
22	0			46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 6-21-88 (Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

SITE: HEWITT

OXY: 3.1 GAS: 20 BK.PRRS: 1 VAC: 29 FLOW: .15 TEMP. 1400°

BY JOSE PENA

DATE 6-28-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 6-28-88 (Cont)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

SITE: HEWITT

OXY: 5.5 GAS: 19 BK.PRRS: 1 VAC: 29 FLOW: .15 TEMP. 1350

BY JOSE PEÑA DATE 7-5-88

PROBE	% METHANE	TIME		PROBE	% METHANE	TIME	
1	0		HOUSE ✓	22A	0		
1A	0		OFFICE ✓	23	0		
2	0		S.S. ✓	24	0		
2A	0		SPECIALS. ✓	24A	0		
3B	0			25	0		
4	0			25A	0		
4A	0			26	0		
5	0			26A	0		
5A	0			27	0		
6B	0			27A	0		
6C	0			28	0		
6D	0			29B	0		
7	0			29C	0		
7A	0			30A	0		
8A	0			31	0		
9	0			31A	0		
10	0			32	0		
10A	0			32A	0		
11B	0			33	0		
12B	0			34	0		
13A	0			35	0		
13X	0			36B	0		
14B	0			37	0		
14C	0			38	0		
15A	0			38B	0		
16A	0			39	0		
16X	0			40	0		
17A	0			41	0		
18B	0			42	0		
19	0			43	0		
20	0			44A	0		
20A	0			45	0		
22	0			46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 7-5-88 (cont.)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A 130'			
B 70'			
C 30'			

CalMat [redacted]

GAS PROBE READINGS

SITE: HEWITT

OXY: 5.5 GAS: 23 BK. PRRS: 1 VAC: 28 FLOW: .15 TEMP. 1450°

BY JOSE PEÑA

DATE 7/12/88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 7-12-88 (cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 25 GAS: 23 BK.PRRS: 1 VAC: 27 FLOW: .70 TEMP. 1325°

BY JOSE PENA DATE 7-20-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 7-20-88 (cont.)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3 GAS: 23 BK.PRRS: 2 VAC: 28 FLOW: .15 TEMP. 1325°

BY JOSE PEÑA

DATE 7-26-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 7-26-88 (cont.)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A 130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 5. TAKEN AT 4:15 PM GAS: 22 BK.PRRS: 1 VAC: 22 FLOW: .25 TEMP. 1325

BY Dan Pomeroy DATE 8-2-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	.25		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY: Dan Pomeranz

DATE: 8-2-88 (Cont.)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 22 BK. PRRS: 2 VAC: 30 FLOW: .25 TEMP. 1225°

BY [illegible]

DATE 8-9-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	.25		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 8-9-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 22 BK.PRRS: 2 VAC: ~~28~~ 26 FLOW: .10 TEMP. 80°

BY Dan Poyerhantz

DATE 8-16-84

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	.25		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY DAN POMERMOTZ

DATE 8-16-88 (Con

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 24 BK. PRRS: 1 VAC: 28 FLOW: 15 TEMP. 1225

BY JOSE PEÑA DATE 8-23-88

PROBE	% METHANE	TIME		PROBE	% METHANE	TIME	
1	0		HOUSE 0	22A	0		
1A	0		OFFICE 0	23	0		
2	0		S.S. 0	24	0		
2A	0		SPECIALS. 0	24A	0		
3B	0			25	0		
4	0			25A	0		
4A	0			26	0		
5	0			26A	0		
5A	0			27	0		
6B	0			27A	0		
6C	0			28	0		
6D	0			29B	0		
7	0			29C	0		
7A	0			30A	0		
8A	0			31	0		
9	0			31A	0		
10	0			32	0		
10A	0			32A	0		
11B	0			33	0		
12B	0			34	0		
13A	0			35	0		
13X	0			36B	0		
14B	0			37	0		
14C	0			38	0		
15A	0			38B	0		
16A	0			39	0		
16X	0			40	0		
17A	0			41	0		
18B	0			42	0		
19	0			43	0		
20	0			44A	0		
20A	0			45	0		
22	0			46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 8-23-88 (am

PROBE	% METHANE	TIME		PROBE	% METHANE	TIME	
1A				A130'			
1B	0			B 70'			
1C	0			C 30'			
2A							
2B	0						
2C	0						
3A							
3B	0						
3C	0						
4A							
4B	0						
4C	0						
5A							
5B	0						
5C	0						
6A							
6B	0						
6C	0						
7A							
7B	0						
7C	0						
8A							
8B	0						
8C	0						

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3 GAS: 20 BK.PRRS: 2 VAC: 28 FLOW: .15 TEMP. 1175°

BY JOSE PEÑA DATE 8-30-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 8-30-88 (Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 71 BK.PRRS: 3 VAC: 76 FLOW: .15 TEMP. 1175°

BY JOSE PENA DATE 9-6-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 9-6-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 21 BK.PRRS: 2 VAC: 28 FLOW: .15 TEMP. 1200°

BY JOSE PENA DATE 9-13-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 9-13-88 (Con.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 21 BK.PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1100°

BY JOSE PERA DATE 9-19-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 9-19-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A 130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 21 BK.PRRS: 3 VAC: 28 FLOW: 1.5 TEMP. 1100°

BY Jose Perea DATE 9-27-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 9-27-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 21 BK.PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1125

BY JOSE PEÑA

DATE 10-4 88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIAL S 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 10-4-88 Cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 24 BK.PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1250°

BY JOSE PENA DATE 10-11-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22			

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 10-11-88 (Cont

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.5 GAS: 22 BK.PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1150°

BY JOSE PEÑA DATE 10-18-88

PROBE	% METHANE	TIME	
1	0		HOUSE ~~0~~
1A	0		OFFICE ~~0~~
2	0		S.S. ~~0~~
2A	0		SPECIALS. ~~0~~
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 10-18-88 (am

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.25 GAS: 23 BK. PRRS: 1 VAC: 26 FLOW: TEMP. 1300°

BY JOSE PEÑA DATE 10-25-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 10-25-88 (con

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 3.5 GAS: 22 BK.PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1125°

BY JOSE PERA

DATE 11-1-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 11-1-88 (Cont.)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4.5 GAS: 20 BK. PRRS: 3 VAC: 28 FLOW: .15 TEMP. 1025°

BY Jose Pena

DATE 11-7-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 11-7-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 21 GAS: 21 BK.PRRS: 3 VAC: 29 FLOW: .15 TEMP. 1175°

BY JOSE PEROA DATE 11-15-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS, 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 11-15-88 (Cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4 GAS: 21 BK.PRRS: 3 VAC: 28 FLOW: 0 TEMP. 1175°

BY Jose Perez DATE 11-22-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 11-22-88 (Cont)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4 GAS: 21 BK. PRRS: 3 VAC: 28 FLOW: NO READING TEMP. 1200°

BY JOSE PEÑA DATE 11-30-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 11-30-88 (cont.

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 14 GAS: 73 BK.PRRS: 3 VAC: 28 FLOW: N/R TEMP. 1100°

BY Jose Perez

DATE 12-6-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 12-6-88 (cont)

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A	0		
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4 GAS: 23 BK.PRRS: 2 VAC: 27 FLOW: N/R TEMP. 1200°F

BY JOSE PEÑA DATE 12-13-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____

DATE 12-13-88 (Con

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

OXY: 4 GAS: 21 BK.PRRS: 3 VAC: 29 FLOW: N/R TEMP. 1200°

BY JOSE PEÑA

DATE 12-20-88

PROBE	% METHANE	TIME	
1	0		HOUSE 0
1A	0		OFFICE 0
2	0		S.S. 0
2A	0		SPECIALS. 0
3B	0		
4	0		
4A	0		
5	0		
5A	0		
6B	0		
6C	0		
6D	0		
7	0		
7A	0		
8A	0		
9	0		
10	0		
10A	0		
11B	0		
12B	0		
13A	0		
13X	0		
14B	0		
14C	0		
15A	0		
16A	0		
16X	0		
17A	0		
18B	0		
19	0		
20	0		
20A	0		
22	0		

PROBE	% METHANE	TIME	
22A	0		
23	0		
24	0		
24A	0		
25	0		
25A	0		
26	0		
26A	0		
27	0		
27A	0		
28	0		
29B	0		
29C	0		
30A	0		
31	0		
31A	0		
32	0		
32A	0		
33	0		
34	0		
35	0		
36B	0		
37	0		
38	0		
38B	0		
39	0		
40	0		
41	0		
42	0		
43	0		
44A	0		
45	0		
46	0		

CalMat Self Storage Co.

GAS PROBE READINGS

SITE: HEWITT

BY _____ DATE 12-20-88 (Con

PROBE	% METHANE	TIME	
1A			
1B	0		
1C	0		
2A			
2B	0		
2C	0		
3A			
3B	0		
3C	0		
4A			
4B	0		
4C	0		
5A			
5B	0		
5C	0		
6A			
6B	0		
6C	0		
7A			
7B	0		
7C	0		
8A			
8B	0		
8C	0		

PROBE	% METHANE	TIME	
A130'			
B 70'			
C 30'			

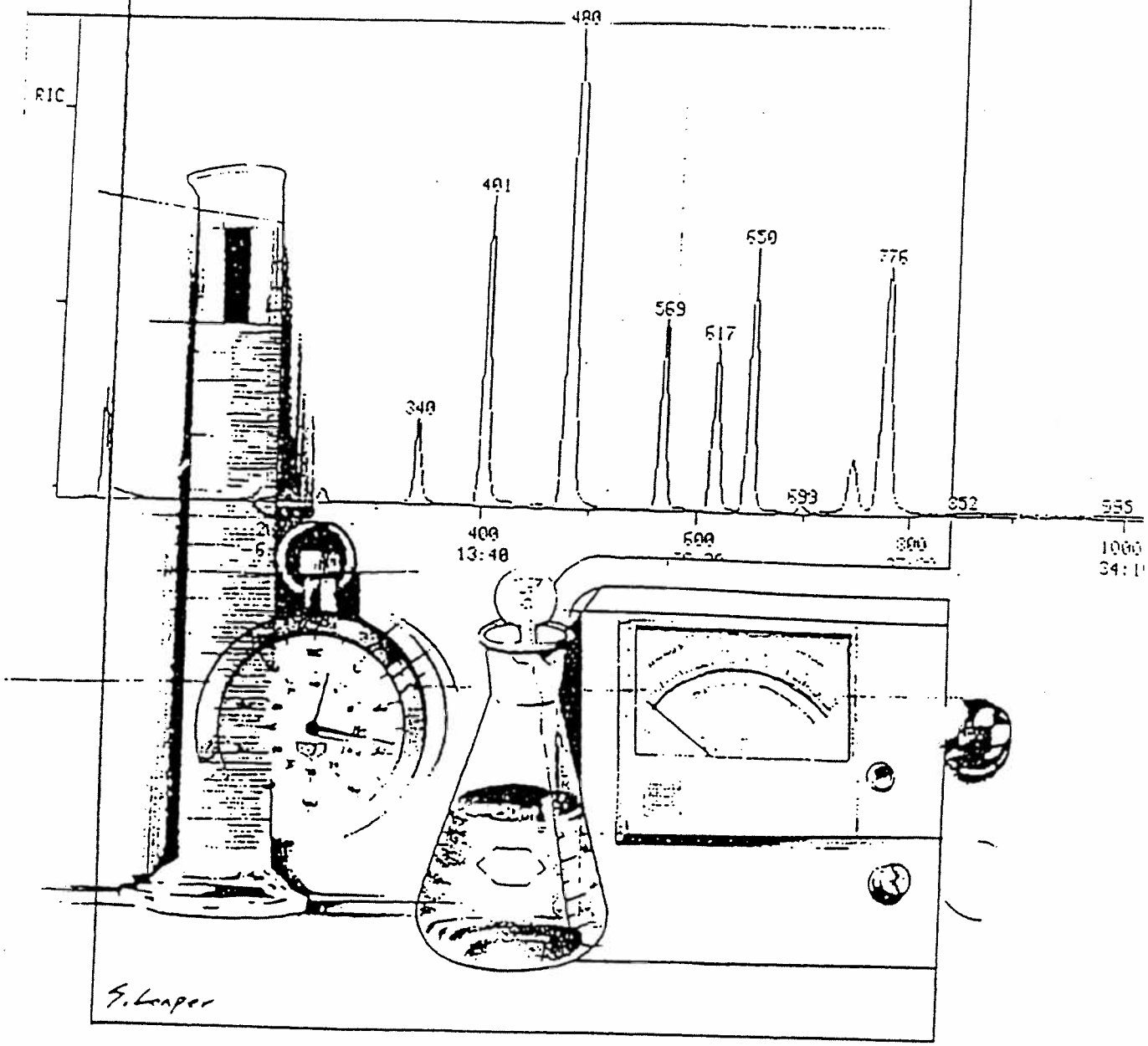
APPENDIX

PRATT AND WHITNEY LABORATORY OPERATIONS HANDBOOK

PHOTOS NOT INCLUDED
IN THIS COPY

Summary of the Analytical Laboratory

Quality Control Handbook



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1. INTRODUCTION

1.1 Purpose of the Summary

ERT, A Resource Engineering Company, is dedicated to the concept that all technical work must be accomplished in accordance with accepted quality assurance practices. ERT assures its clients of thorough and cost-effective quality assurance programs designed to fill specific project needs. ERT is committed to the philosophy that quality operations result from quality planning, design, and work performance by skilled laboratory personnel. ERT's policy is to perform its varied types of technical work in accordance with standard quality assurance practices such as those prescribed by EPA Good Laboratory Practices and other pertinent documents.

This document is a technical summary of ERT's analytical laboratory's quality control program. Complete details of the comprehensive quality control program are contained in the Analytical Laboratory Quality Control Handbook. The Handbook contains specific instructions for every phase of the program and is kept current through periodic updates. All laboratory personnel are required to study and understand the contents of the Handbook, and to use it as the basis for all laboratory operations. The Table of Contents from the Handbook is reproduced for this summary.

This summary is designed to furnish sufficient technical information to evaluate ERT's laboratory quality control practices. For each section of the Handbook, this summary furnishes a brief description of the key issues and ERT's approach to each issue. ERT will make a copy of the Handbook available for proposal and pre-project evaluation audits and for post-project data audits.

1.2 Objectives of the Quality Control Program

The ERT National Laboratory Quality Control Department is completely independent of line function. Its manager reports directly and exclusively to the National Laboratory Services Division Director. The Laboratory Quality Control Coordinator is appointed by the National Laboratory Services Quality Control Manager and reports directly to the division QC Manager, with ancillary responsibilities to the Laboratory Manager and the Corporate Quality Assurance Manager.

Figures 1 and 2 shows the position for the Quality Control Coordinator relative to overall division operations. The laboratory quality control program has the following objectives:

- To provide an ongoing quality assessment program for all analytical work

- To perform regularly scheduled audits and thereby document an objective evaluation of quality-related practices.

- To promptly identify variances and implement corrective actions.

- To maintain readily identifiable and retrievable records to provide documentary evidence of the quality of activities performed.

- To provide procedures for implementing project-specific quality plans.

- To define responsibility and authority for developing and implementing quality plans.

- To provide quality reference documentation for each project.

Figure 3 shows the necessary inputs, controls, and functions necessary to achieve these objectives within the analytical laboratory.

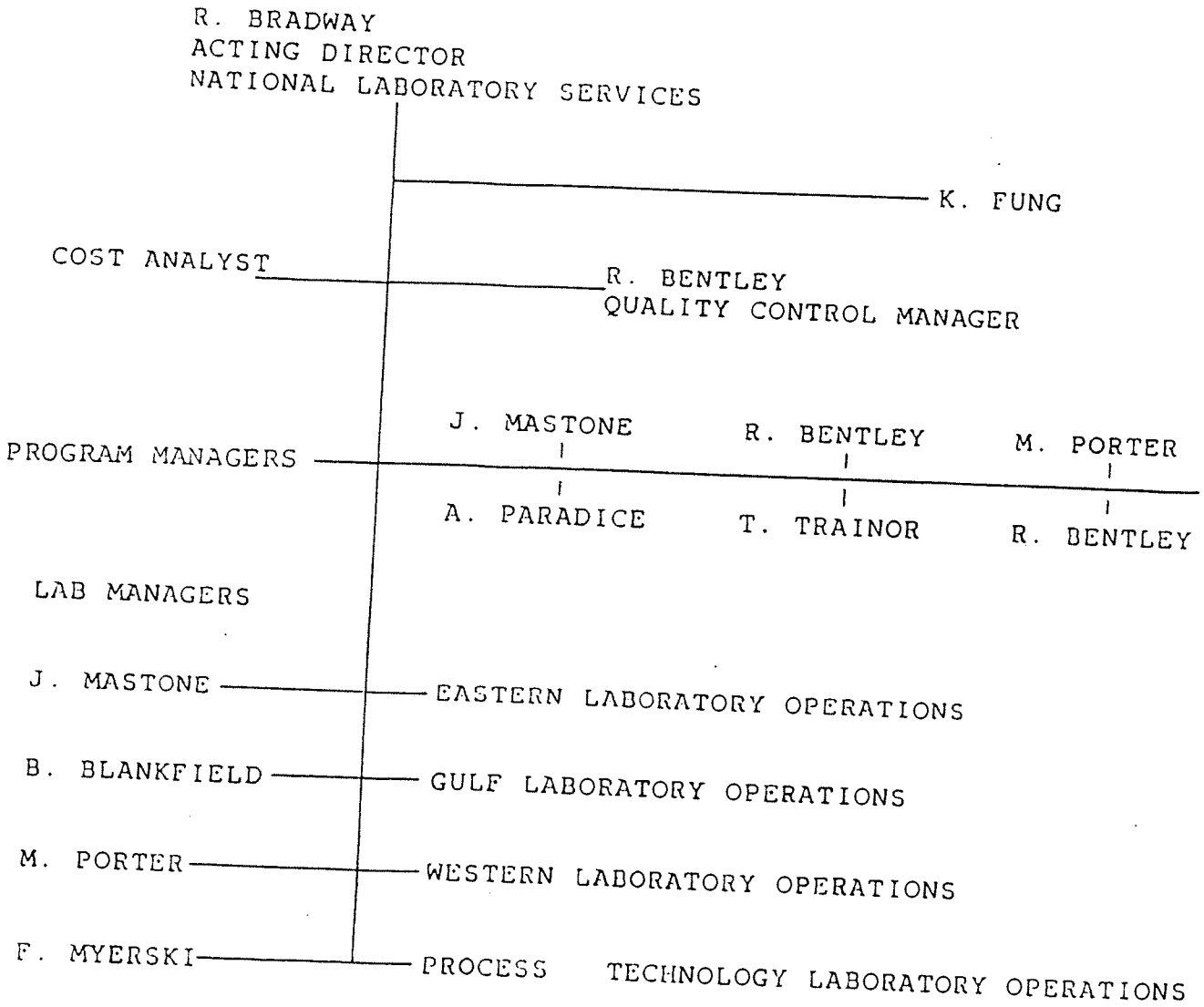


Figure 1
NATIONAL LABORATORY SERVICES

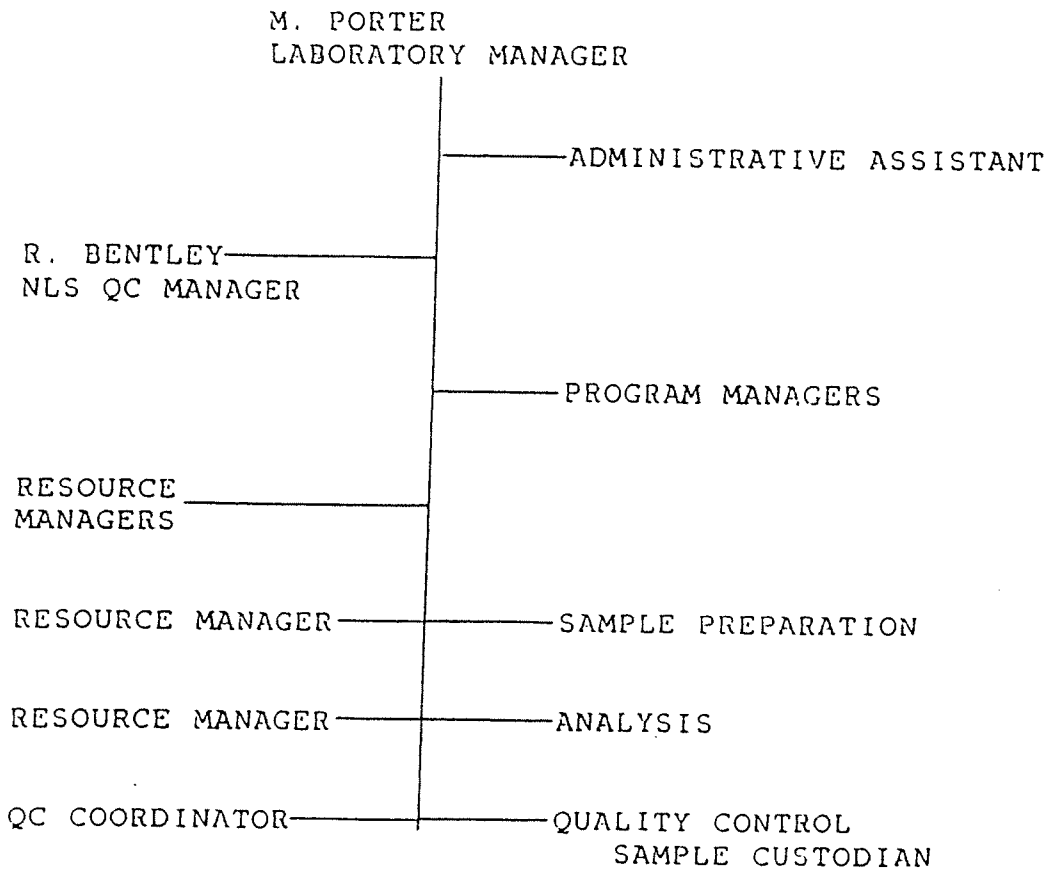
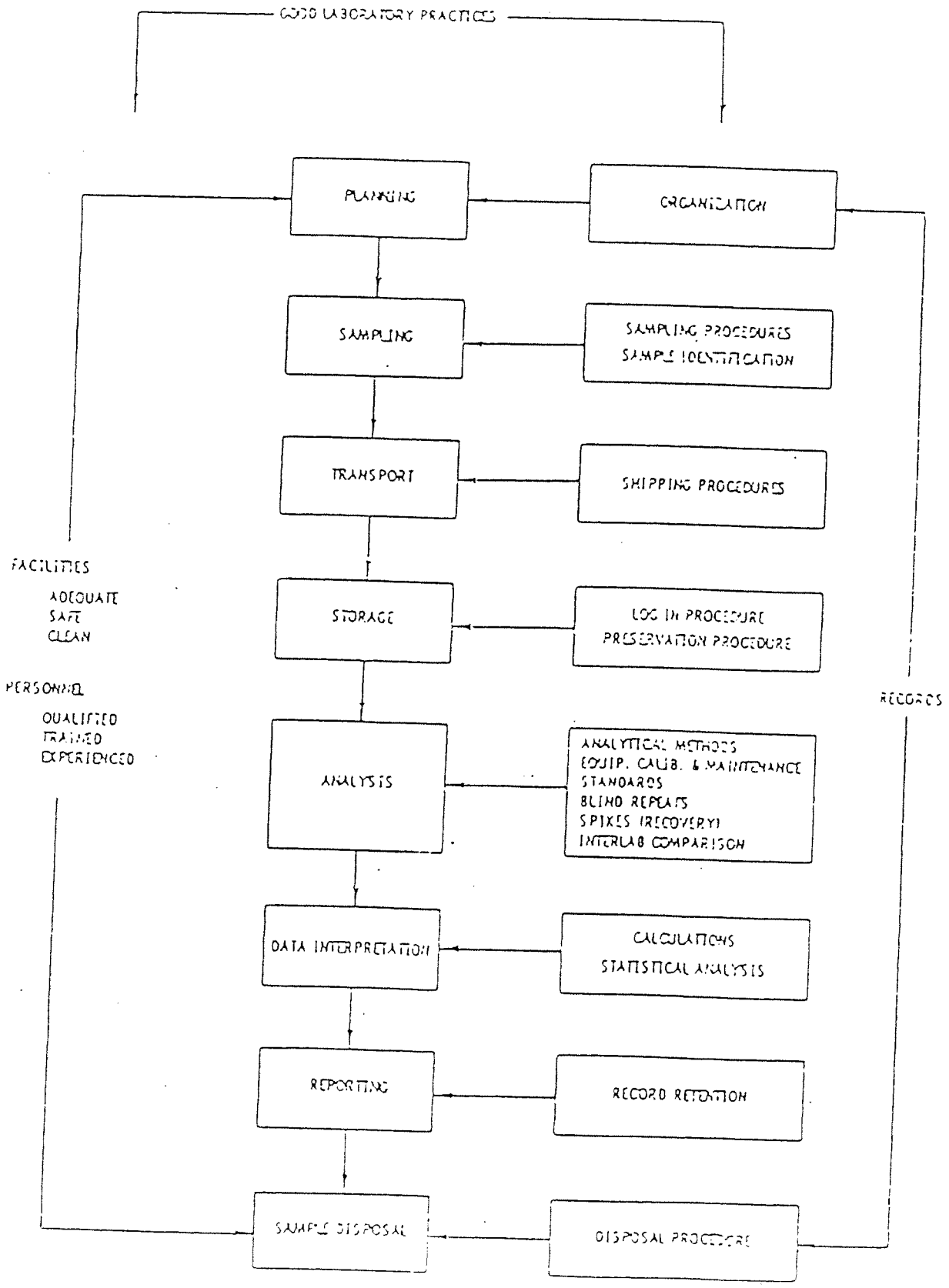


Figure 2

WESTERN LABORATORY SERVICES

Figure 3 Schematic of Good Laboratory Practices



2. PERSONNEL

The operational structure of the environmental analytical laboratory is provided in Figure 2. Personnel are assigned to perform specific duties within the following functional groups:

- Sample preparation group
- Analysis group
- QC coordinator

2.1 Qualifications

Each functional group, excluding the QC coordinator, is composed of a group leader, environmental chemists, laboratory technicians, and/or laboratory assistants.

A description of the individual positions is provided in the Handbook and summarized below:

- Resource Manager (Group Leader):
  A professional (BS, MS, etc.); experienced environmental analyst (>4 years); specialized in highly complex procedures; capable of supervising other professionals and technicians.

- Environmental Chemist:
  Professional (BS, etc); experienced environmental analyst (1-4 years) capable of following complex analytical procedures; possess a good background in various analytical techniques; capable of supervising technicians.

- Laboratory Technician:
  Professional (A.S., B.S. etc.) with minimum training (0-1 year) or with specialized training (1-2 years); possess a knowledge of chemistry and/or a background in general laboratory techniques; an aptitude for following analytical procedures.

- Laboratory Assistants:
  Semi-skilled (H.S. diploma preferred) with a minimal chemistry background or training in laboratory techniques.

2.2 Training

Laboratory training endeavors fall into three (3) categories:

- initial training
- short-term training
- long-term (developmental) training

The training techniques utilized by the laboratory to provide each individual with increased analytical skills include:

- on-the-job training
- lectures
- programmed learning
- conferences and seminars (in-house and out-of-house)
- short courses (provided by ACS or other scientific organizations)
- specialized training by instrument manufacturers
- attendance at scientific meetings

- enrollment in college/university courses
- specialized training manuals
- participation in check-sample or proficiency sample programs

ERT maintains a commitment to provide analytical services of the highest quality. ERT strives to fulfill this obligation by employing the most qualified personnel available and to maintain their high level of professional competence through a comprehensive training program. The Handbook establishes mimimum requirements for initial and continuing training.

3. FACILITIES AND EQUIPMENT

ERT recognizes the importance of facilities and equipment to the quality of data generated. Therefore, the analytical services laboratory has been planned and assembled to ensure the quality and acceptance of analytical data.

3.1 Laboratory Work Space

The analytical services complex consists of several discrete laboratories. Separate areas have been established for sample receipt and storage, glassware cleaning, sample preparation, trace level and grossly contaminated sample preparation, and instrumental analyses. Adequate space exists in each laboratory to ensure safe and accurate sample handling.

3.2 Lighting

Lighting is provided by overhead fluorescent lights and is conducive to the function being performed.

3.3 Cleanliness

Cleanliness is important to laboratory effectiveness and appearance. Every effort is made to maintain clean, clutter-free work areas. Storage of materials and supplies on bench tops is discouraged and time is allotted regularly for lab cleanup as prescribed by the Handbook.

3.4 Safety Rules

Safety rules are established by the ERT Health and Safety Committee. These rules are posted in the laboratory and are enforced in all laboratory areas. Every employee is expected to review and obey these rules. Rules specific to laboratory operations are outlined in detail in the Handbook.

3.5 Safety Equipment

Safety equipment is provided in each laboratory. The Handbook gives detailed instructions on the location and proper use of all safety equipment and for maintaining records on equipment use and servicing.

3.6 Ventilation

Air exchange information is valuable data for the laboratory. Periodic velocity measurements of hoods and vents are conducted and recorded. A hood face velocity of 100 cubic feet/minute is considered minimum for safe use. The Handbook sets out specific routines for collection and tracking of the data obtained.

3.7 Compressed Air

Compressed air of known quality is purchased from an outside supplier. For high purity analyses, this supplier is required to provide certification of quality through an analysis report.

3.8 Electrical Power

Laboratory electric power supply, at both 110 volts and 220 volts, is considered adequate for the functions being performed. Each laboratory has a separate electric service. The systems are adequately grounded and have voltage regulation where necessary for proper instrument operation, as outlined in the Handbook.

3.9 Water Supply

The laboratory potable water source is the city of Newbury Park public water supply. This water is also used to produce the deionized water supply used in the laboratory.

3.10 Chemical Storage

Proper storage of chemicals and solvents is provided in the laboratory, taking into consideration compatability, flammability and reactivity. Neat chemicals are dated upon receipt and stored in a central storage area. Supplies of solvent are stored in a locked area away from the laboratory. Solvents in use are stored in vented, fire proof cabinets located in the laboratories. The purity of each lot of solvent is checked before use. Procedures for recording, filing and updating inventory are outlined in the Handbook.

3.11 Sample Storage

A separate secured area is provided for sample storage before and after analysis to minimize the potential for cross-contamination. This facility includes refrigeration and freezer units for samples

Summary of ROG Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*24.8*	*24.9*	*25.2*						*25.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	24.8	24.9	25.2						25.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*5.4*	*5.4*	*5.4*				*5.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			5.4	5.4	5.4				5.4
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*8.1*	*8.1*	*8.1*				*8.1*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			8.1	8.1	8.1				8.1
	Grading - URBEMIS		*0.1*	*na*	*na*					*0.1*
	Onsite Exhaust - El Dorado CEQA			*17.6*	*17.6*					*17.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.1	17.6	17.6					17.6
	Grading - URBEMIS			*0.1*			*na*	*na*		*0.1*
	Onsite Exhaust - El Dorado CEQA						*9.7*	*9.7*		*9.7*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.1			9.7	9.7		9.7
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*15.9*	*16.0*	*16.1*						*16.1*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	15.9	16.0	16.1						16.1
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*19.8*	*20.0*	*19.9*					*20.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		19.8	20.0	19.9					20.0
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		13.7							13.7
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		13.7							13.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*18.6*	*18.6*	*18.6*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							18.6	18.6	18.6
	Grading - URBEMIS		*0.1*	*na*						*0.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.1	0.0						0.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*15.8*	*15.8*						*15.8*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		15.8	15.8						15.8
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*18.9*	*18.9*				*18.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				18.9	18.9				18.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*9.1*	*9.1*						*9.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		9.1	9.1						9.1
	Grading - URBEMIS		*0.1*				*na*			*0.1*
	Onsite Exhaust - El Dorado CEQA						*13.2*			*13.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.1				13.2			13.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*19.5*	*19.5*	*19.5*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							19.5	19.5	19.5
	Grading - URBEMIS							*0.2*	*0.0*	*0.2*
	Onsite Exhaust - El Dorado CEQA							*13.7*	*13.7*	*13.7*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							13.9	13.7	13.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.3	6.4	4.7	4.5	0.4	15.1	13.2	4.8	15.1
	Offsite Haul Routes (Marysville & Prairie City)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Alternative #1 Total	**41.1**	**119.7**	**122.1**	**74.5**	**32.8**	**38.1**	**75.0**	**56.7**	**122.1**

Summary of ROG Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*24.8*	*24.9*	*25.2*						*25.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	24.8	24.9	25.2						25.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*5.4*	*5.4*	*5.4*				*5.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			5.4	5.4	5.4				5.4
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*8.1*	*8.1*	*8.1*				*8.1*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			8.1	8.1	8.1				8.1
	Grading - URBEMIS		*0.1*	*na*	*na*					*0.1*
	Onsite Exhaust - El Dorado CEQA			*17.6*	*17.6*					*17.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.1	17.6	17.6					17.6
	Grading - URBEMIS			*0.1*			*na*	*na*		*0.1*
	Onsite Exhaust - El Dorado CEQA						*9.7*	*9.7*		*9.7*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.1			9.7	9.7		9.7
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*15.9*	*16.0*	*16.1*						*16.1*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	15.9	16.0	16.1						16.1
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*19.8*	*20.0*	*19.9*					*20.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		19.8	20.0	19.9					20.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		13.7							13.7
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		13.7							13.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*18.6*	*18.6*	*18.6*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							18.6	18.6	18.6
	Grading - URBEMIS		*0.1*	*na*						*0.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.1	0.0						0.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*15.8*	*15.8*						*15.8*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		15.8	15.8						15.8
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*18.9*	*18.9*				*18.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				18.9	18.9				18.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*9.1*	*9.1*						*9.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		9.1	9.1						9.1
	Grading - URBEMIS		*0.1*				*na*			*0.1*
	Onsite Exhaust - El Dorado CEQA						*13.2*			*13.2*
	Local Haul Routes - EMFAC2002						*0.1*			*0.1*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.1				13.2			13.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*19.5*	*19.5*	*19.5*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							19.5	19.5	19.5
	Grading - URBEMIS							*0.2*	*0.0*	*0.2*
	Onsite Exhaust - El Dorado CEQA							*13.7*	*13.7*	*13.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							13.9	13.8	13.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.3	5.9	4.6	4.5	0.5	14.2	12.4	4.3	14.2
	Offsite Haul Routes (Marysville & Prairie City)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Alternative #2 SOD Total	**41.0**	**119.2**	**122.0**	**74.4**	**32.9**	**37.2**	**74.2**	**56.3**	**122.0**

Summary of ROG Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*24.8*	*24.9*	*25.2*						*25.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	24.8	24.9	25.2						25.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*5.4*	*5.4*	*5.4*				*5.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			5.4	5.4	5.4				5.4
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*8.1*	*8.1*	*8.1*				*8.1*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			8.1	8.1	8.1				8.1
	Grading - URBEMIS		*0.2*	*na*	*na*					*0.2*
	Onsite Exhaust - El Dorado CEQA			*17.6*	*17.6*					*17.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.2	17.6	17.6					17.6
	Grading - URBEMIS			*0.1*			*na*	*na*		*0.1*
	Onsite Exhaust - El Dorado CEQA						*9.7*	*9.7*		*9.7*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.1			9.7	9.7		9.7
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*15.9*	*16.0*	*16.1*						*16.1*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	15.9	16.0	16.1						16.1
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*19.8*	*20.0*	*19.9*					*20.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		19.8	20.0	19.9					20.0
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		13.7							13.7
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		13.7							13.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*18.6*	*18.6*	*18.6*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							18.6	18.6	18.6
	Grading - URBEMIS		*0.1*	*na*						*0.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.1	0.0						0.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*15.8*	*15.8*						*15.8*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		15.8	15.8						15.8
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*18.9*	*18.9*				*18.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				18.9	18.9				18.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*9.1*	*9.1*						*9.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		9.1	9.1						9.1
	Grading - URBEMIS		*0.1*				*na*			*0.1*
	Onsite Exhaust - El Dorado CEQA						*13.2*			*13.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.1				13.2			13.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*19.5*	*19.5*	*19.5*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							19.5	19.5	19.5
	Grading - URBEMIS							*0.3*	*0.0*	*0.3*
	Onsite Exhaust - El Dorado CEQA							*13.7*	*13.7*	*13.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							14.1	13.8	14.1
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.2	1.8	4.6	4.8	0.7	7.2	7.1	2.6	7.2
	Offsite Haul Routes (Marysville & Prairie City)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Alternative #3 IFA Total	**41.3**	**115.7**	**122.4**	**75.0**	**33.5**	**30.5**	**69.4**	**55.0**	**122.4**

Summary of ROG Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*24.8*	*24.9*	*25.2*						*25.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	24.8	24.9	25.2						25.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*5.4*	*5.4*	*5.4*				*5.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			5.4	5.4	5.4				5.4
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*8.1*	*8.1*	*8.1*				*8.1*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			8.1	8.1	8.1				8.1
	Grading - URBEMIS		*0.3*	*na*	*na*					*0.3*
	Onsite Exhaust - El Dorado CEQA			*17.6*	*17.6*					*17.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.3	17.6	17.6					17.6
	Grading - URBEMIS			*0.1*			*na*	*na*		*0.1*
	Onsite Exhaust - El Dorado CEQA						*9.7*	*9.7*		*9.7*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.1			9.7	9.7		9.7
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*15.9*	*16.0*	*16.1*						*16.1*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	15.9	16.0	16.1						16.1
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*19.8*	*20.0*	*19.9*					*20.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		19.8	20.0	19.9					20.0
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		13.7							13.7
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.2*							*0.2*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		13.9							13.9
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*18.6*	*18.6*	*18.6*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							18.6	18.6	18.6
	Grading - URBEMIS		*0.1*	*na*						*0.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.1	0.0						0.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*15.8*	*15.8*						*15.8*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		15.8	15.8						15.8
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*18.9*	*18.9*				*18.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				18.9	18.9				18.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*9.1*	*9.1*						*9.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		9.1	9.1						9.1
	Grading - URBEMIS		*0.1*				*na*			*0.1*
	Onsite Exhaust - El Dorado CEQA						*13.2*			*13.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.1				13.2			13.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*19.5*	*19.5*	*19.5*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							19.5	19.5	19.5
	Grading - URBEMIS							*0.6*	*0.0*	*0.6*
	Onsite Exhaust - El Dorado CEQA							*13.7*	*13.7*	*13.7*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							14.3	13.7	14.3
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.2	1.7	1.1	1.2	0.7	3.3	5.8	5.2	5.8
	Offsite Haul Routes (Marysville & Prairie City)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Alternative #4 Total	**41.3**	**115.8**	**118.8**	**71.5**	**33.4**	**26.6**	**68.4**	**57.5**	**118.8**

Summary of ROG Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*24.8*	*24.9*	*25.2*						*25.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	24.8	24.9	25.2						25.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*5.4*	*5.4*	*5.4*				*5.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			5.4	5.4	5.4				5.4
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*8.1*	*8.1*	*8.1*				*8.1*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			8.1	8.1	8.1				8.1
	Grading - URBEMIS		*0.3*	*na*	*na*					*0.3*
	Onsite Exhaust - El Dorado CEQA			*17.6*	*17.6*					*17.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.3	17.6	17.6					17.6
	Grading - URBEMIS			*0.1*			*na*	*na*		*0.1*
	Onsite Exhaust - El Dorado CEQA						*9.7*	*9.7*		*9.7*
	Local Haul Routes - EMFAC2002						*0.1*	*0.1*		*0.1*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.1			9.8	9.8		9.8
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*15.9*	*16.0*	*16.1*						*16.1*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	15.9	16.0	16.1						16.1
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*19.8*	*20.0*	*19.9*					*20.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		19.8	20.0	19.9					20.0
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		13.7							13.7
	Grading - URBEMIS		*0.1*							*0.1*
	Onsite Exhaust - El Dorado CEQA		*13.6*							*13.6*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		13.7							13.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*18.6*	*18.6*	*18.6*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							18.6	18.6	18.6
	Grading - URBEMIS		*0.1*	*na*						*0.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.1	0.0						0.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*15.8*	*15.8*						*15.8*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		15.8	15.8						15.8
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*18.9*	*18.9*				*18.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				18.9	18.9				18.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*9.1*	*9.1*						*9.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		9.1	9.1						9.1
	Grading - URBEMIS		*0.1*				*na*			*0.1*
	Onsite Exhaust - El Dorado CEQA						*13.2*			*13.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.1				13.2			13.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*19.5*	*19.5*	*19.5*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							19.5	19.5	19.5
	Grading - URBEMIS							*0.3*	*0.0*	*0.3*
	Onsite Exhaust - El Dorado CEQA							*13.7*	*13.7*	*13.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							14.0	13.8	14.0
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.2	1.8	1.5	0.7	0.4	2.1	3.0	2.8	3.0
	Offsite Haul Routes (Marysville & Prairie City)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Alternative #5 Total	**41.4**	**115.9**	**119.4**	**71.1**	**33.3**	**25.6**	**65.6**	**55.2**	**119.4**

Summary of CO Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*210.8*	*212.3*	*214.9*						*214.9*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	210.8	212.3	214.9						214.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*45.1*	*45.5*	*45.5*				*45.5*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			45.1	45.5	45.5				45.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*68.3*	*68.4*	*68.4*				*68.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			68.3	68.4	68.4				68.4
	Grading - URBEMIS		*0.4*	*na*	*na*					*0.4*
	Onsite Exhaust - El Dorado CEQA			*147.9*	*148.8*					*148.8*
	Local Haul Routes - EMFAC2002			*0.1*	*0.1*					*0.1*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.4	148.0	148.9					148.9
	Grading - URBEMIS			*0.3*			*na*	*na*		*0.3*
	Onsite Exhaust - El Dorado CEQA						*82.1*	*82.1*		*82.1*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.3			82.2	82.2		82.2
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*135.6*	*136.2*	*137.2*						*137.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	135.6	136.2	137.2						137.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*168.6*	*170.0*	*169.7*					*170.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		168.6	170.0	169.7					170.0
	Grading - URBEMIS		*0.3*							*0.3*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		114.2							114.2
	Grading - URBEMIS		*0.3*							*0.3*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		114.2							114.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*158.2*	*158.2*	*158.2*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							158.2	158.2	158.2
	Grading - URBEMIS		*0.4*	*na*						*0.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.4	0.0						0.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*132.8*	*133.4*						*133.4*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		132.8	133.4						133.4
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*159.7*	*159.7*				*159.7*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				159.8	159.8				159.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*77.1*	*77.1*						*77.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		77.1	77.1						77.1
	Grading - URBEMIS		*0.7*				*na*			*0.7*
	Onsite Exhaust - El Dorado CEQA						*111.5*			*111.5*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.7				111.5			111.5
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*166.3*	*166.3*	*166.3*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							166.3	166.3	166.3
	Grading - URBEMIS							*1.4*	*0.0*	*1.4*
	Onsite Exhaust - El Dorado CEQA							*115.5*	*115.5*	*115.5*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							116.9	115.6	116.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	1.2	28.2	20.6	*20.1*	*1.8*	66.9	58.4	21.2	66.9
	Offsite Haul Routes (Marysville & Prairie City)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Alternative #1 Total	**348.0**	**985.2**	**1015.1**	**612.7**	**275.9**	**261.0**	**582.2**	**461.5**	**2086.1**

Summary of CO Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*210.8*	*212.3*	*214.9*						*214.9*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	210.8	212.3	214.9						214.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*45.1*	*45.5*	*45.5*				*45.5*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			45.1	45.5	45.5				45.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*68.3*	*68.4*	*68.4*				*68.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			68.3	68.4	68.4				68.4
	Grading - URBEMIS		*0.4*	*na*	*na*					*0.4*
	Onsite Exhaust - El Dorado CEQA			*147.9*	*148.8*					*148.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.4	147.9	148.8					148.8
	Grading - URBEMIS			*0.3*			*na*	*na*		*0.3*
	Onsite Exhaust - El Dorado CEQA						*82.1*	*82.1*		*82.1*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.3			82.2	82.2		82.2
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*135.6*	*136.2*	*137.2*						*137.2*
	Local Haul Routes - EMFAC2007	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	135.6	136.2	137.2						137.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*168.6*	*170.0*	*169.7*					*170.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		168.6	170.0	169.7					170.0
	Grading - URBEMIS		*0.3*							*0.3*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		114.2							114.2
	Grading - URBEMIS		*0.3*							*0.3*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		114.2							114.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*158.2*	*158.2*	*158.2*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							158.2	158.2	158.2
	Grading - URBEMIS		*0.4*	*na*						*0.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.4	0.0						0.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*132.8*	*133.4*						*133.4*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		132.8	133.4						133.4
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*159.7*	*159.7*				*159.7*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				159.7	159.7				159.7
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*77.1*	*77.1*						*77.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		77.1	77.1						77.1
	Grading - URBEMIS		*0.7*				*na*			*0.7*
	Onsite Exhaust - El Dorado CEQA						*111.5*			*111.5*
	Local Haul Routes - EMFAC2002						*0.2*			*0.2*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.7				111.7			111.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*166.3*	*166.3*	*166.3*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							166.3	166.3	166.3
	Grading - URBEMIS							*1.3*	*0.0*	*1.3*
	Onsite Exhaust - El Dorado CEQA							*115.5*	*115.5*	*115.5*
	Local Haul Routes - EMFAC2002							*0.3*	*0.3*	*0.3*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							117.1	115.8	117.1
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		*0.0*	*0.0*	0.0
	Internal Haul Routes	1.2	26.0	20.3	19.8	2.2	62.9	54.7	18.9	62.9
	Offsite Haul Routes (Marysville & Prairie City)	*0.3*	*0.3*	0.3	*0.3*	0.3	*0.3*	*0.3*	0.3	0.3
	Alternative #2 SOD Total	**347.9**	**983.0**	**1014.7**	**612.3**	**276.2**	**257.0**	**578.7**	**459.4**	**2082.3**

Summary of CO Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*210.8*	*212.3*	*214.9*						*214.9*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	210.8	212.3	214.9						214.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*45.1*	*45.5*	*45.5*				*45.5*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			45.1	45.5	45.5				45.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*68.3*	*68.4*	*68.4*				*68.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			68.3	68.4	68.4				68.4
	Grading - URBEMIS		*0.9*	*na*	*na*					*0.9*
	Onsite Exhaust - El Dorado CEQA			*147.9*	*148.8*					*148.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.9	147.9	148.8					148.8
	Grading - URBEMIS			*0.4*			*na*	*na*		*0.4*
	Onsite Exhaust - El Dorado CEQA						*82.1*	*82.1*		*82.1*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.4			82.2	82.2		82.2
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*135.6*	*136.2*	*137.2*						*137.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	135.6	136.2	137.2						137.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*168.6*	*170.0*	*169.7*					*170.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		168.6	170.0	169.7					170.0
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		114.1							114.1
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		114.2							114.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*158.2*	*158.2*	*158.2*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							158.2	158.2	158.2
	Grading - URBEMIS		*0.4*	*na*						*0.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.4	0.0						0.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*132.8*	*133.4*						*133.4*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		132.8	133.4						133.4
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*159.7*	*159.7*				*159.7*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				159.8	159.8				159.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*77.1*	*77.1*						*77.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		77.1	77.1						77.1
	Grading - URBEMIS		*0.7*				*na*			*0.7*
	Onsite Exhaust - El Dorado CEQA						*111.5*			*111.5*
	Local Haul Routes - EMFAC2002						*0.1*			*0.1*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.7				111.6			111.6
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*166.3*	*166.3*	*166.3*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							166.3	166.3	166.3
	Grading - URBEMIS							*1.4*	*0.0*	*1.4*
	Onsite Exhaust - El Dorado CEQA							*115.5*	*115.5*	*115.5*
	Local Haul Routes - EMFAC2002							*0.4*	*0.4*	*0.4*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							117.3	115.9	117.3
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					*0.0*		*0.0*	*0.0*	*0.0*
	Internal Haul Routes	*0.8*	*8.0*	*20.4*	*21.1*	*3.3*	*32.0*	*31.3*	*11.7*	*32.0*
	Offsite Haul Routes (Marysville & Pralne City)	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	Alternative #3 IFA Total	**348.6**	**966.8**	**1016.0**	**614.7**	**278.4**	**227.2**	**556.6**	**453.4**	**2052.7**

Summary of CO Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*210.8*	*212.3*	*214.9*						*214.9*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	210.8	212.3	214.9						214.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*45.1*	*45.5*	*45.5*				*45.5*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			45.1	45.5	45.5				45.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*68.3*	*68.4*	*68.4*				*68.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			68.3	68.4	68.4				68.4
	Grading - URBEMIS		*0.9*	*na*	*na*					*0.9*
	Onsite Exhaust - El Dorado CEQA			*147.9*	*148.8*					*148.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.9	147.9	148.8					148.8
	Grading - URBEMIS			*0.4*			*na*	*na*		*0.4*
	Onsite Exhaust - El Dorado CEQA						*82.1*	*82.1*		*82.1*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.4			82.2	82.2		82.2
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*135.6*	*136.2*	*137.2*						*137.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	135.6	136.2	137.2						137.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*168.6*	*170.0*	*169.7*					*170.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		168.6	170.0	169.7					170.0
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		114.3							114.3
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.8*							*0.8*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		115.0							115.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*158.2*	*158.2*	*158.2*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							158.2	158.2	158.2
	Grading - URBEMIS		*0.4*	*na*						*0.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.4	0.0						0.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*132.8*	*133.4*						*133.4*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		132.8	133.4						133.4
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*159.7*	*159.7*				*159.7*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				159.8	159.8				159.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*77.1*	*77.1*						*77.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		77.1	77.1						77.1
	Grading - URBEMIS		*0.7*				*na*			*0.7*
	Onsite Exhaust - El Dorado CEQA						*111.5*			*111.5*
	Local Haul Routes - EMFAC2002						*0.1*			*0.1*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.7				111.7			111.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*166.3*	*166.3*	*166.3*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							166.3	166.3	166.3
	Grading - URBEMIS							*4.2*	*0.0*	*4.2*
	Onsite Exhaust - El Dorado CEQA							*115.5*	*115.5*	*115.5*
	Local Haul Routes - EMFAC2002							*0.2*	*0.2*	*0.2*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							119.9	115.7	119.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.8	7.4	4.7	5.4	2.9	14.6	25.8	23.2	25.8
	Offsite Haul Routes (Marysville & Prairie City)	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	Alternative #4 Total	**348.6**	**967.0**	**1000.3**	**599.0**	**278.0**	**209.8**	**553.6**	**464.8**	**2050.0**

Summary of CO Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17 ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*210.8*	*212.3*	*214.9*						*214.9*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	210.8	212.3	214.9						214.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*45.1*	*45.5*	*45.5*				*45.5*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			45.1	45.5	45.5				45.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*68.3*	*68.4*	*68.4*				*68.4*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			68.3	68.4	68.4				68.4
	Grading - URBEMIS		*0.9*	*na*	*na*					*0.9*
	Onsite Exhaust - El Dorado CEQA			*147.9*	*148.8*					*148.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.9	147.9	148.8					148.8
	Grading - URBEMIS			*0.4*			*na*	*na*		*0.4*
	Onsite Exhaust - El Dorado CEQA						*82.1*	*82.1*		*82.1*
	Local Haul Routes - EMFAC2002						*0.5*	*0.5*		*0.5*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.4			82.7	82.7		82.7
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*135.6*	*136.2*	*137.2*						*137.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	135.6	136.2	137.2						137.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*168.6*	*170.0*	*169.7*					*170.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		168.6	170.0	169.7					170.0
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		114.2							114.2
	Grading - URBEMIS		*0.4*							*0.4*
	Onsite Exhaust - El Dorado CEQA		*113.8*							*113.8*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		114.2							114.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*158.2*	*158.2*	*158.2*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							158.2	158.2	158.2
	Grading - URBEMIS		*0.4*	*na*						*0.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.4	0.0						0.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*132.8*	*133.4*						*133.4*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		132.8	133.4						133.4
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*159.7*	*159.7*				*159.7*
	Local Haul Routes - EMFAC2002				*0.1*	*0.1*				*0.1*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				159.8	159.8				159.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*77.1*	*77.1*						*77.1*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		77.1	77.1						77.1
	Grading - URBEMIS		*0.7*				*na*			*0.7*
	Onsite Exhaust - El Dorado CEQA						*111.5*			*111.5*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.7				111.5			111.5
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*166.3*	*166.3*	*166.3*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							166.3	166.3	166.3
	Grading - URBEMIS							*1.4*	*0.0*	*1.4*
	Onsite Exhaust - El Dorado CEQA							*115.5*	*115.5*	*115.5*
	Local Haul Routes - EMFAC2002							*0.3*	*0.3*	*0.3*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							117.2	115.8	117.2
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.8	8.1	6.8	3.1	1.8	9.1	13.4	12.2	13.4
	Offsite Haul Routes (Marysville & Prairie City)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Alternative #5 Total	**349.2**	**967.5**	**1002.9**	**597.4**	**277.6**	**205.3**	**539.7**	**454.5**	**0.0**

Summary of NOx Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*144.8*	*146.1*	*148.2*						*148.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliacy Spillway Borrow Development Period	144.8	146.1	148.2						148.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*32.6*	*32.0*	*32.0*				*32.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			32.6	32.0	32.0				32.6
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*47.6*	*47.3*	*47.3*				*47.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			47.6	47.3	47.3				47.6
	Grading - URBEMIS		*1.3*	*na*	*na*					*1.3*
	Onsite Exhaust - El Dorado CEQA			*104.6*	*103.4*					*104.6*
	Local Haul Routes - EMFAC2002			*0.3*	*0.3*					*0.3*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		1.3	104.9	103.7					104.9
	Grading - URBEMIS			*1.2*			*na*	*na*		*1.2*
	Onsite Exhaust - El Dorado CEQA						*56.4*	*56.4*		*56.4*
	Local Haul Routes - EMFAC2002						*0.1*	*0.1*		*0.1*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			1.2			56.5	56.5		56.5
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*92.9*	*93.4*	*94.2*						*94.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	92.9	93.4	94.2						94.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*115.7*	*116.9*	*116.6*					*116.9*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		115.7	116.9	116.6					116.9
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		83.6							83.6
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		83.6							83.6
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*108.7*	*108.7*	*108.7*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							108.7	108.7	108.7
	Grading - URBEMIS		*1.2*	*na*						*1.2*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		1.2	0.0						1.2
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*94.3*	*93.5*						*94.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		94.3	93.5						94.3
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*110.8*	*110.8*				*110.8*
	Local Haul Routes - EMFAC2002				*0.2*	*0.2*				*0.2*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				111.0	111.0				111.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*52.6*	*52.6*						*52.6*
	Local Haul Routes - EMFAC2007		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		52.6	52.6						52.6
	Grading - URBEMIS		*2.3*				*na*			*2.3*
	Onsite Exhaust - El Dorado CEQA						*77.7*			*77.7*
	Local Haul Routes - EMFAC2002						*0.1*			*0.1*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		2.3				77.8			77.8
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*113.8*	*113.8*	*113.8*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							113.8	113.8	113.8
	Grading - URBEMIS							*4.5*	*0.0*	*4.5*
	Onsite Exhaust - El Dorado CEQA							*80.6*	*80.6*	*80.6*
	Local Haul Routes - EMFAC2002							*0.2*	*0.2*	*0.2*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							85.4	80.9	85.4
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.1	0.1	0.1
	Internal Haul Routes	3.4	78.7	57.6	56.1	5.0	186.9	163.1	59.1	186.9
	Offsite Haul Routes (Macysville & Prairie City)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Alternative #1 Total	**242.6**	**754.4**	**750.6**	**468.1**	**196.8**	**322.7**	**529.2**	**364.1**	**754.4**

Summary of NOx Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*144.8*	*146.1*	*148.2*						*148.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	*144.8*	*146.1*	*148.2*						*148.2*
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*32.6*	*32.0*	*32.0*				*32.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			*32.6*	*32.0*	*32.0*				*32.6*
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*47.6*	*47.3*	*47.3*				*47.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			*47.6*	*47.3*	*47.3*				*47.6*
	Grading - URBEMIS		*1.3*	*na*	*na*					*1.3*
	Onsite Exhaust - El Dorado CEQA			*104.6*	*103.4*					*104.6*
	Local Haul Routes - EMFAC2002			*0.2*	*0.2*					*0.2*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		*1.3*	*104.8*	*103.5*					*104.8*
	Grading - URBEMIS			*1.2*			*na*	*na*		*1.2*
	Onsite Exhaust - El Dorado CEQA						*56.4*	*56.4*		*56.4*
	Local Haul Routes - EMFAC2002						*0.1*	*0.1*		*0.1*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			*1.2*			*56.5*	*56.5*		*56.5*
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*92.9*	*93.4*	*94.2*						*94.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	*92.9*	*93.4*	*94.2*						*94.2*
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*115.7*	*116.9*	*116.6*					*116.9*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		*115.7*	*116.9*	*116.6*					*116.9*
	Grading - URBEMIS		*1.1*							*1.1*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.2*							*0.2*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		*83.7*							*83.7*
	Grading - URBEMIS		*1.1*							*1.1*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		*83.6*							*83.6*
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*108.7*	*108.7*	*108.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							*108.8*	*108.8*	*108.8*
	Grading - URBEMIS		*1.2*	*na*						*1.2*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		*1.2*	*0.0*						*1.2*
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*94.3*	*93.5*						*94.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		*94.3*	*93.5*						*94.3*
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*110.8*	*110.8*				*110.8*
	Local Haul Routes - EMFAC2002				*0.1*	*0.1*				*0.1*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				*110.9*	*110.9*				*110.9*
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*52.6*	*52.6*						*52.6*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		*52.6*	*52.6*						*52.6*
	Grading - URBEMIS		*2.2*				*na*			*2.2*
	Onsite Exhaust - El Dorado CEQA						*77.7*			*77.7*
	Local Haul Routes - EMFAC2002						*0.9*			*0.9*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		*2.2*				*78.5*			*78.5*
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*113.8*	*113.8*	*113.8*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							*113.8*	*113.8*	*113.8*
	Grading - URBEMIS							*4.5*	*0.0*	*4.5*
	Onsite Exhaust - El Dorado CEQA							*80.6*	*80.6*	*80.6*
	Local Haul Routes - EMFAC2002							*1.3*	*1.3*	*1.3*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							*86.4*	*81.9*	*86.4*
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					*0.0*		*0.1*	*0.1*	*0.1*
	Internal Haul Routes	*3.4*	*72.5*	*56.6*	*55.3*	*6.1*	*175.6*	*152.9*	*52.7*	*175.6*
	Offsite Haul Routes (Marysville & Prairie City)	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*	*1.2*
	Alternative #2 SOD Total	**242.4**	**747.9**	**749.3**	**466.8**	**197.5**	**311.8**	**519.7**	**358.5**	**749.3**

Summary of NOx Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*144.8*	*146.1*	*148.2*						*148.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	144.8	146.1	148.2						148.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*32.6*	*32.0*	*32.0*				*32.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			32.6	32.0	32.0				32.6
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*47.6*	*47.3*	*47.3*				*47.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			47.6	47.3	47.3				47.6
	Grading - URBEMIS		*3.3*	*na*	*na*					*3.3*
	Onsite Exhaust - El Dorado CEQA			*104.6*	*103.4*					*104.6*
	Local Haul Routes - EMFAC2002			*0.1*	*0.1*					*0.1*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		3.3	104.7	103.5					104.7
	Grading - URBEMIS			*1.4*			*na*	*na*		*1.4*
	Onsite Exhaust - El Dorado CEQA						*56.4*	*56.4*		*56.4*
	Local Haul Routes - EMFAC2002						*0.1*	*0.1*		*0.1*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			1.4			56.5	56.5		56.5
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*92.9*	*93.4*	*94.2*						*94.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	92.9	93.4	94.2						94.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*115.7*	*116.9*	*116.6*					*116.9*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		115.7	116.9	116.6					116.9
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		83.6							83.6
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.3*							*0.3*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		83.9							83.9
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*108.7*	*108.7*	*108.7*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							108.7	108.7	108.7
	Grading - URBEMIS		*1.4*	*na*						*1.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		1.4	*0.0*						1.4
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*94.3*	*93.5*						*94.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		94.3	93.5						94.3
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*110.8*	*110.8*				*110.8*
	Local Haul Routes - EMFAC2002				*0.1*	*0.1*				*0.1*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				110.9	110.9				110.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*52.6*	*52.6*						*52.6*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		52.6	52.6						52.6
	Grading - URBEMIS		*2.4*				*na*			*2.4*
	Onsite Exhaust - El Dorado CEQA						*77.7*			*77.7*
	Local Haul Routes - EMFAC2002						*0.3*			*0.3*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		2.4				78.0			78.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*113.8*	*113.8*	*113.8*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							113.8	113.8	113.8
	Grading - URBEMIS							*4.8*	*0.0*	*4.8*
	Onsite Exhaust - El Dorado CEQA							*80.6*	*80.6*	*80.6*
	Local Haul Routes - EMFAC2002							*1.7*	*1.7*	*1.7*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							87.1	82.3	87.1
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					*0.0*		*0.1*	*0.1*	*0.1*
	Internal Haul Routes	2.2	22.4	56.9	58.9	9.1	89.3	87.4	32.6	89.3
	Offsite Haul Routes (Marysville & Prairie City)	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
	Alternative #3 IFA Total	**246.4**	**705.4**	**754.9**	**475.6**	**205.7**	**230.2**	**460.1**	**343.9**	**754.9**

Summary of NOx Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*144.8*	*146.1*	*148.2*						*148.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	144.8	146.1	148.2						148.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*32.6*	*32.0*	*32.0*				*32.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			32.6	32.0	32.0				32.6
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*47.6*	*47.3*	*47.3*				*47.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			47.6	47.3	47.3				47.6
	Grading - URBEMIS		*3.4*	*na*	*na*					*3.4*
	Onsite Exhaust - El Dorado CEQA			*104.6*	*103.4*					*104.6*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		3.4	104.6	103.4					104.6
	Grading - URBEMIS			*1.3*			*na*	*na*		*1.3*
	Onsite Exhaust - El Dorado CEQA						*56.4*	*56.4*		*56.4*
	Local Haul Routes - EMFAC2002						*0.2*	*0.2*		*0.2*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			1.3			56.6	56.6		56.6
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*92.9*	*93.4*	*94.2*						*94.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	92.9	93.4	94.2						94.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*115.7*	*116.9*	*116.6*					*116.9*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		115.7	116.9	116.6					116.9
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.5*							*0.5*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		84.0							84.0
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*3.7*							*3.7*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		87.3							87.3
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*108.7*	*108.7*	*108.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							108.8	108.8	108.8
	Grading - URBEMIS		*1.3*	*na*						*1.3*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*nas*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		1.3	0.0						1.3
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*94.3*	*93.5*						*94.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		94.3	93.5						94.3
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*110.8*	*110.8*				*110.8*
	Local Haul Routes - EMFAC2002				*0.1*	*0.1*				*0.1*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				110.9	110.9				110.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*52.6*	*52.6*						*52.6*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		52.6	52.6						52.6
	Grading - URBEMIS		*2.3*				*na*			*2.3*
	Onsite Exhaust - El Dorado CEQA						*77.7*			*77.7*
	Local Haul Routes - EMFAC2002						*0.6*			*0.6*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		2.3				78.3			78.3
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*113.8*	*113.8*	*113.8*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							113.8	113.8	113.8
	Grading - URBEMIS							*5.8*	*0.0*	*5.8*
	Onsite Exhaust - El Dorado CEQA							*80.6*	*80.6*	*80.6*
	Local Haul Routes - EMFAC2002							*0.8*	*0.8*	*0.8*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							87.2	81.5	87.2
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	2.2	20.6	13.3	15.0	8.1	40.7	72.0	64.9	72.0
	Offsite Haul Routes (Marysville & Prairie City)	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	Alternative #4 Total	**246.3**	**707.5**	**710.9**	**431.5**	**204.6**	**181.9**	**444.7**	**375.2**	**710.9**

Summary of NOx Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*144.8*	*146.1*	*148.2*						*148.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	144.8	146.1	148.2						148.2
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*32.6*	*32.0*	*32.0*				*32.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			32.6	32.0	32.0				32.6
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*47.6*	*47.3*	*47.3*				*47.6*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			47.6	47.3	47.3				47.6
	Grading - URBEMIS		*3.4*	*na*	*na*					*3.4*
	Onsite Exhaust - El Dorado CEQA			*104.6*	*103.4*					*104.6*
	Local Haul Routes - EMFAC2002			*0.1*	*0.1*					*0.1*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		3.4	104.6	103.4					104.6
	Grading - URBEMIS			*1.3*			*na*	*na*		*1.3*
	Onsite Exhaust - El Dorado CEQA						*56.4*	*56.4*		*56.4*
	Local Haul Routes - EMFAC2002						*2.4*	*2.4*		*2.4*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			1.3			58.8	58.8		58.8
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*92.9*	*93.4*	*94.2*						*94.2*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	92.9	93.4	94.2						94.2
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*115.7*	*116.9*	*116.6*					*116.9*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		115.7	116.9	116.6					116.9
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.3*							*0.3*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		83.9							83.9
	Grading - URBEMIS		*1.2*							*1.2*
	Onsite Exhaust - El Dorado CEQA		*82.3*							*82.3*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		83.7							83.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*108.7*	*108.7*	*108.7*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							108.8	108.8	108.8
	Grading - URBEMIS		*1.3*	*na*						*1.3*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		1.3	0.0						1.3
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*94.3*	*93.5*						*94.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		94.3	93.5						94.3
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*110.8*	*110.8*				*110.8*
	Local Haul Routes - EMFAC2002				*0.4*	*0.4*				*0.4*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				111.2	111.2				111.2
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*52.6*	*52.6*						*52.6*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		52.6	52.6						52.6
	Grading - URBEMIS		*2.3*				*na*			*2.3*
	Onsite Exhaust - El Dorado CEQA						*77.7*			*77.7*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		2.3				77.7			77.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*113.8*	*113.8*	*113.8*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							113.8	113.8	113.8
	Grading - URBEMIS							*4.8*	*0.0*	*4.8*
	Onsite Exhaust - El Dorado CEQA							*80.6*	*80.6*	*80.6*
	Local Haul Routes - EMFAC2002							*1.2*	*1.2*	*1.2*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							86.6	81.8	86.6
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.2*	*0.2*	*0.2*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.2	0.2	0.2
	Internal Haul Routes	2.2	22.7	18.9	8.7	5.1	25.4	37.4	34.2	37.4
	Offsite Haul Routes (Marysville & Prairie City)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	Alternative #5 Total	**248.9**	**708.5**	**719.3**	**428.1**	**204.5**	**170.9**	**414.6**	**347.8**	**719.3**

Summary of SO_2 Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Locat Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	0.0	0.0	0.0						0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Locat Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			0.0	0.0	0.0				0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Locat Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			0.0	0.0	0.0				0.0
	Grading - URBEMIS		*0.0*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.0*
	Locat Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.0	0.0	0.0					0.0
	Grading - URBEMIS			*0.0*			*na*	*na*		*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.0*
	Locat Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.0			0.0	0.0		0.0
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Locat Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	0.0	0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.0*
	Locat Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		0.0	0.0	0.0					0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Locat Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		0.0							0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Locat Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		0.0							0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Locat Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							0.0	0.0	0.0
	Grading - URBEMIS		*0.0*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Locat Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Locat Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		0.0	0.0						0.0
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.0*
	Locat Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				0.0	0.0				0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Locat Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		0.0	0.0						0.0
	Grading - URBEMIS		*0.0*				*na*			*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.0*
	Locat Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.0				0.0			0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Locat Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev							0.0	0.0	0.0
	Grading - URBEMIS							*0.0*	*0.0*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Locat Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const							0.0	0.0	0.0
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Locat Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.0	0.1	0.1	0.1	0.0	0.3	0.2	0.1	0.3
	Offsite Haul Routes (Marysville & Praine City)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alternative #1 Total	**0.0**	**0.1**	**0.1**	**0.1**	**0.0**	**0.3**	**0.2**	**0.1**	**0.3**

Summary of SO_2 Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.0
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	na	na	na						0.0
	Auxiliary Spillway Borrow Development Period	0.0	0.0	0.0						0.0
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.0
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			na	na	na				0.0
	Crushing Fugitives - AP-42			na	na	na				0.0
	Auxiliary Spillway			0.0	0.0	0.0				0.0
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.0
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			na	na	na				0.0
	Crushing Fugitives - AP-42			na	na	na				0.0
	Tunnel Construction			0.0	0.0	0.0				0.0
	Grading - URBEMIS		0.0	na	na					0.0
	Onsite Exhaust - El Dorado CEQA			na	na					0.0
	Local Haul Routes - EMFAC2002			0.0	0.0					0.0
	Concrete Batch Plant - AP-42			na	na					0.0
	Crushing Fugitives - AP-42			na	na					0.0
	RWD Construction		0.0	0.0	0.0					0.0
	Grading - URBEMIS			0.0			na	na		0.0
	Onsite Exhaust - El Dorado CEQA						na	na		0.0
	Local Haul Routes - EMFAC2002						0.0	0.0		0.0
	Concrete Batch Plant - AP-42						na	na		0.0
	Crushing Fugitives - AP-42						na	na		0.0
	LWD Construction			0.0			0.0	0.0		0.0
	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.0
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	na	na	na						0.0
	Bridge Spoils Excavation	0.0	0.0	0.0						0.0
	Grading - URBEMIS		na	na	na					0.0
	Onsite Exhaust - El Dorado CEQA		na	na	na					0.0
	Local Haul Routes - EMFAC2002		na	na	na					0.0
	Concrete Batch Plant - AP-42		na	na	na					0.0
	Crushing Fugitives - AP-42		na	na	na					0.0
	Beals Pt. Borrow Dev.		0.0	0.0	0.0					0.0
	Grading - URBEMIS		0.0							0.0
	Onsite Exhaust - El Dorado CEQA		na							0.0
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 5 Materials		0.0							0.0
	Grading - URBEMIS		0.0							0.0
	Onsite Exhaust - El Dorado CEQA		na							0.0
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 6 Materials		0.0							0.0
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							na	na	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Mooney Ridge Const.							0.0	0.0	0.0
	Grading - URBEMIS		0.0	na						0.0
	Onsite Exhaust - El Dorado CEQA		na	na						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Borrow Dev.		0.0	0.0						0.0
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		na	na						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Excavate & Repl. Foundation		0.0	0.0						0.0
	Grading - URBEMIS				na	na				0.0
	Onsite Exhaust - El Dorado CEQA				na	na				0.0
	Local Haul Routes - EMFAC2002				0.0	0.0				0.0
	Concrete Batch Plant - AP-42				na	na				0.0
	Crushing Fugitives - AP-42				na	na				0.0
	MIAD Shell & Raise				0.0	0.0				0.0
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		na	na						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Jet Grouting		0.0	0.0						0.0
	Grading - URBEMIS		0.0				na			0.0
	Onsite Exhaust - El Dorado CEQA						na			0.0
	Local Haul Routes - EMFAC2002						0.0			0.0
	Concrete Batch Plant - AP-42						na			0.0
	Crushing Fugitives - AP-42						na			0.0
	Dike 7& 8 Const.		0.0				0.0			0.0
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							na	na	0.0
	Local Haul Routes - EMFAC2002							na	na	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Granite Bay Borrow Dev.							0.0	0.0	0.0
	Grading - URBEMIS							0.0	0.0	0.0
	Onsite Exhaust - El Dorado CEQA							na	na	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Dikes 1, 2, 3 & 4 Const.							0.0	0.0	0.0
	Grading - URBEMIS					0.0		na	na	0.0
	Onsite Exhaust - El Dorado CEQA							na	na	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.0	0.1	0.1	0.1	0.0	0.3	0.2	0.1	0.3
	Offsite Haul Routes (Marysville & Prairie City)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alternative #2 SOD Total	**0.0**	**0.1**	**0.1**	**0.1**	**0.0**	**0.3**	**0.2**	**0.1**	**0.3**

Summary of SO_2 Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	0.0	0.0	0.0						0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			0.0	0.0	0.0				0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			0.0	0.0	0.0				0.0
	Grading - URBEMIS		*0.0*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.0	0.0	0.0					0.0
	Grading - URBEMIS			*0.0*			*na*	*na*		*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.0*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.0			0.0	0.0		0.0
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	0.0	0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		0.0	0.0	0.0					0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		0.0							0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		0.0							0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							0.0	0.0	0.0
	Grading - URBEMIS		*0.0*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		0.0	0.0						0.0
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				0.0	0.0				0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		0.0	0.0						0.0
	Grading - URBEMIS		*0.0*				*na*			*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const		0.0				0.0			0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							0.0	0.0	0.0
	Grading - URBEMIS							*0.0*	*0.0*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							0.0	0.0	0.0
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
	Offsite Haul Routes (Marysville & Prairie City)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alternative #3 IFA Total	**0.0**	**0.0**	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**

Summary of SO_2 Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	0.0	0.0	0.0						0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			0.0	0.0	**0**.0				0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			0.0	0.0	**0**.0				**0**.0
	Grading - URBEMIS		*0.0*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.0	0.**0**	0.0					0.0
	Grading - URBEMIS			*0.0*			*na*	*na*		*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.0*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.0			0.0	0.0		0.0
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	0.0	0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		0.0	0.0	0.0					0.**0**
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		0.0							0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		0.0							0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							0.0	0.0	0.0
	Grading - URBEMIS		*0.0*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		0.0	0.0						0.0
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				0.0	0.0				0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		0.0	0.**0**						0.0
	Grading - URBEMIS		*0.0*				*na*			*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.0				0.0			0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							0.0	0.0	0.0
	Grading - URBEMIS							*0.0*	*0.0*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							0.**0**	0.0	0.0
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
	Offsite Haul Routes (Marysville & Prairie City)	0.0	0.**0**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alternative #4 Total	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**

Summary of SO_2 Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Auxiliary Spillway Borrow Development Period	0.0	0.0	0.0						0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Auxiliary Spillway			0.0	0.0	0.0				0.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			0.0	0.0	0.0				0.0
	Grading - URBEMIS		*0.0*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.0	0.0	0.0					0.0
	Grading - URBEMIS			*0.0*			*na*	*na*		*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.0*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.0*
	Crushing Fugitives - AP-42						*na*	*na*		*0.0*
	LWD Construction			0.0			0.0	0.0		0.0
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	0.0	0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.0*
	Beals Pt. Borrow Dev.		0.0	0.0	0.0					0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		0.0							0.0
	Grading - URBEMIS		*0.0*							*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.0*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		0.0							0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							0.0	0.0	0.0
	Grading - URBEMIS		*0.0*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Borrow Dev.		0.0	0.0						0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		0.0	0.0						0.0
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.0*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				0.0	0.0				0.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Jet Grouting		0.0	0.0						0.0
	Grading - URBEMIS		*0.0*				*na*			*0.0*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.0				0.0			0.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Granite Bay Borrow Dev.							0.0	0.0	0.0
	Grading - URBEMIS							*0.0*	*0.0*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							0.0	0.0	0.0
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Main Concrete Dam Tendon & Shears					0.0		0.0	0.0	0.0
	Internal Haul Routes	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
	Offsite Haul Routes (Marysville & Prairie City)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alternative #5 Total	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**

Summary of PM_{10} Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*4.0*	*4.0*	*4.0*						*4.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*13.6*	*13.6*	*13.6*						*13.6*
	Auxiliary Spillway Borrow Development Period	17.6	17.6	17.7						17.7
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.0*	*0.9*	*0.9*				*1.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*165.4*	*165.4*	*165.4*				*165.4*
	Crushing Fugitives - AP-42			*13.6*	*13.6*	*13.6*				*13.6*
	Auxiliary Spillway			180.0	179.9	179.9				180.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.3*	*1.3*	*1.3*				*1.3*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.3	1.3	1.3				1.3
	Grading - URBEMIS		*0.4*	*na*	*na*					*0.4*
	Onsite Exhaust - El Dorado CEQA			*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002			*0.1*	*0.1*					*0.1*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		*0.4*	*3.1*	*3.0*					*3.1*
	Grading - URBEMIS			*1.0*			*na*	*na*		*1.0*
	Onsite Exhaust - El Dorado CEQA						*1.6*	*1.6*		*1.6*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*165.4*	*165.4*		*165.4*
	Crushing Fugitives - AP-42						*13.6*	*13.6*		*13.6*
	LWD Construction			1.0			180.6	180.6		180.6
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.6*	*2.6*	*2.6*						*2.6*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.6	2.6	2.6						2.6
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*3.2*	*3.2*	*3.2*					*3.2*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*	*13.6*					*13.6*
	Beals Pt. Borrow Dev.		16.8	16.8	16.8					16.8
	Grading - URBEMIS		*8.8*							*8.8*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		11.3							11.3
	Grading - URBEMIS		*5.2*							*5.2*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		7.6							7.6
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.0*	*3.0*	*3.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							3.0	3.0	3.0
	Grading - URBEMIS		*2.1*	*na*						*2.1*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Borrow Dev.		15.8	13.6						15.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.7*	*2.7*						*2.7*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.7	2.7						2.7
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*3.1*	*3.1*				*3.1*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				3.2	3.2				3.2
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.5*	*1.5*						*1.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*165.4*	*165.4*						*165.4*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Jet Grouting		180.5	180.5						180.5
	Grading - URBEMIS		*3.2*				*na*			*3.7*
	Onsite Exhaust - El Dorado CEQA						*2.2*			*2.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		3.7				2.2			3.7
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.1*	*3.1*	*3.1*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Granite Bay Borrow Dev.							16.7	16.7	16.7
	Grading - URBEMIS							*5.0*	*5.0*	*5.0*
	Onsite Exhaust - El Dorado CEQA							*2.3*	*2.3*	*2.3*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							7.3	7.3	7.3
	Grading - URBEMIS					*0.1*		*na*	*na*	*0.1*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Main Concrete Dam Tendon & Shears					*0.1*		13.6	13.6	13.6
	Internal Haul Routes	*1.3*	*29.4*	*21.5*	*21.0*	*1.9*	*69.8*	*60.9*	*22.1*	*69.8*
	Offsite Haul Routes (Marysville & Prairie City)	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*
	Alternative #1 Total	**21.7**	**288.7**	**441.0**	**225.5**	**186.7**	**253.0**	**282.6**	**63.1**	**441.0**

Summary of PM_{10} Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*4.0*	*4.0*	*4.0*						*4.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*13.6*	*13.6*	*13.6*						*13.6*
	Auxiliary Spillway Borrow Development Period	17.6	17.6	17.7						17.7
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.0*	*0.9*	*0.9*				*1.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*165.4*	*165.4*	*165.4*				*165.4*
	Crushing Fugitives - AP-42			*13.6*	*13.6*	*13.6*				*13.6*
	Auxiliary Spillway			180.0	179.9	179.9				180.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.3*	*1.3*	*1.3*				*1.3*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.3	1.3	1.3				1.3
	Grading - URBEMIS		*3.0*	*na*	*na*					*3.0*
	Onsite Exhaust - El Dorado CEQA			*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		3.0	3.0	2.9					3.0
	Grading - URBEMIS			*0.9*			*na*	*na*		*0.9*
	Onsite Exhaust - El Dorado CEQA						*1.6*	*1.6*		*1.6*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*165.4*	*165.4*		*165.4*
	Crushing Fugitives - AP-42						*13.6*	*13.6*		*13.6*
	LWD Construction			0.9			180.6	180.6		180.6
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.6*	*2.6*	*2.6*						*2.6*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.6	2.6	2.6						2.6
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*3.2*	*3.2*	*3.2*					*3.2*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*	*13.6*					*13.6*
	Beals Pt. Borrow Dev.		16.8	16.8	16.8					16.8
	Grading - URBEMIS		*3.6*							*3.6*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		6.1							6.1
	Grading - URBEMIS		*2.8*							*2.8*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		5.3							5.3
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.0*	*3.0*	*3.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							3.1	3.1	3.1
	Grading - URBEMIS		*21.4*	*na*						*21.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Borrow Dev.		35.0	13.6						35.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.7*	*2.7*						*2.7*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.7	2.7						2.7
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*3.1*	*3.1*				*3.1*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				3.1	3.1				3.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.5*	*1.5*						*1.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*165.4*	*165.4*						*165.4*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Jet Grouting		180.5	180.5						180.5
	Grading - URBEMIS		*1.8*				*na*			*1.8*
	Onsite Exhaust - El Dorado CEQA						*2.2*			*2.2*
	Local Haul Routes - EMFAC2002						*0.2*			*0.2*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		1.8				2.4			2.4
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.1*	*3.1*	*3.1*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Granite Bay Borrow Dev							16.7	16.7	16.7
	Grading - URBEMIS							*3.5*	*3.4*	*3.5*
	Onsite Exhaust - El Dorado CEQA							*2.3*	*2.3*	*2.3*
	Local Haul Routes - EMFAC2002							*0.3*	*0.3*	*0.3*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							6.0	6.0	6.0
	Grading - URBEMIS					*0.1*		*na*	*na*	*0.1*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Main Concrete Dam Tendon & Shears					0.1		13.6	13.6	13.6
	Internal Haul Routes	*1.3*	*27.1*	21.1	20.7	*2.3*	65.6	57.1	19.7	65.6
	Offsite Haul Routes (Marysville & Prairie City)	0.3	*0.3*	0.3	*0.3*	*0.3*	0.3	*0.3*	*0.3*	0.3
	Alternative #2 SOD Total	**21.7**	**298.7**	**440.5**	**225.0**	**187.0**	**248.9**	**277.4**	**59.4**	**440.5**

Summary of ROG Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.24*	*1.25*	*1.26*						*1.26*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	1.24	1.25	1.26						1.26
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.65*	*0.65*	*0.65*				*0.65*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.65	0.65	0.65				0.65
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.97*	*0.97*	*0.97*				*0.97*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.97	0.97	0.97				0.97
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*1.58*	*1.58*					*1.58*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	1.58	1.58					1.58
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.87*	*0.87*		*0.87*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.87	0.87		0.87
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.06*	*1.07*	*1.07*						*1.07*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	1.06	1.07	1.07						1.07
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.59*	*0.60*	*0.60*					*0.60*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.59	0.60	0.60					0.60
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.62							0.62
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.03*							*0.03*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.64							0.64
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.56*	*0.56*	*0.56*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.56	0.56	0.56
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*1.66*	*1.66*						*1.66*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		*1.66*	1.66						1.66
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*2.55*	*2.55*				*2.55*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				2.55	2.55				2.55
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.82*	*0.82*						*0.82*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.82	0.82						0.82
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.59*			*0.59*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.60			0.60
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.44*	*0.44*	*0.44*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.44	0.44	0.44
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.82*	*0.82*	*0.82*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.83	0.83	0.83
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.01	0.10	0.11	0.11	0.03	0.18	0.27	0.22	0.27
	Offsite Haul Routes (Marysville & Prairie City)	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Alternative #4 Total	**2.39**	**6.81**	**8.79**	**6.52**	**4.26**	**1.72**	**3.04**	**2.11**	**8.79**

Summary of ROG Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.24*	*1.25*	*1.26*						*1.26*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	1.24	1.25	1.26						1.26
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.65*	*0.65*	*0.65*				*0.65*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.65	0.65	0.65				0.65
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.97*	*0.97*	*0.97*				*0.97*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.97	0.97	0.97				0.97
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*1.58*	*1.58*					*1.58*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	1.58	1.58					1.58
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.87*	*0.87*		*0.87*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.87	0.87		0.87
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.06*	*1.07*	*1.07*						*1.07*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	1.06	1.07	1.07						1.07
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.59*	*0.60*	*0.60*					*0.60*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.59	0.60	0.60					0.60
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.61							0.61
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.62							0.62
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.56*	*0.56*	*0.56*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.56	0.56	0.56
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*1.66*	*1.66*						*1.66*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		1.66	1.66						1.66
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*2.55*	*2.55*				*2.55*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				2.55	2.55				2.55
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.82*	*0.82*						*0.82*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.82	0.82						0.82
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.59*			*0.59*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.60			0.60
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.44*	*0.44*	*0.44*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.44	0.44	0.44
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.82*	*0.82*	*0.82*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.83	0.83	0.83
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.01	0.10	0.09	0.09	0.02	0.16	0.15	0.12	0.16
	Offsite Haul Routes (Marysville & Prairie City)	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Alternative #3 IFA Total	**2.39**	**6.78**	**8.77**	**6.50**	**4.26**	**1.69**	**2.93**	**2.03**	**8.77**

Summary of ROG Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.24*	*1.25*	*1.26*						*1.26*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	1.24	1.25	1.26						1.26
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.65*	*0.65*	*0.65*				*0.65*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxillary Spillway			0.65	0.65	0.65				0.65
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.97*	*0.97*	*0.97*				*0.97*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.97	0.97	0.97				0.97
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*1.58*	*1.58*					*1.58*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	1.58	1.58					1.58
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.87*	*0.87*		*0.87*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.87	0.87		0.87
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.06*	*1.07*	*1.07*						*1.07*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	1.06	1.07	1.07						1.07
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.59*	*0.60*	*0.60*					*0.60*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42									*0.00*
	Beals Pt. Borrow Dev.		0.59	0.60	0.60					0.60
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.62							0.62
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.62							0.62
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.56*	*0.56*	*0.56*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.56	0.56	0.56
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*1.66*	*1.66*						*1.66*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		1.66	1.66						1.66
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*2.55*	*2.55*				*2.55*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				2.55	2.55				2.55
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.82*	*0.82*						*0.82*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.82	0.82						0.82
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.59*			*0.59*
	Local Haul Routes - EMFAC2002						*0.01*			*0.01*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.60			0.60
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.44*	*0.44*	*0.44*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.44	0.44	0.44
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.82*	*0.82*	*0.82*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.83	0.83	0.83
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.01	0.08	0.08	0.06	0.02	0.08	0.09	0.07	0.09
	Offsite Haul Routes (Marysville & Prairie City)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Alternative #2 SOD Total	**2.33**	**6.71**	**8.70**	**6.42**	**4.20**	**1.56**	**2.81**	**1.92**	**8.70**

Summary of ROG Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.24*	*1.25*	*1.26*						*1.26*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	1.24	1.25	1.26						1.26
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.65*	*0.65*	*0.65*				*0.65*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.65	0.65	0.65				0.65
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.97*	*0.97*	*0.97*				*0.97*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.97	0.97	0.97				0.97
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*1.58*	*1.58*					*1.58*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	1.59	1.59					1.59
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.87*	*0.87*		*0.87*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.87	0.87		0.87
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.06*	*1.07*	*1.07*						*1.07*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	1.06	1.07	1.07						1.07
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.59*	*0.60*	*0.60*					*0.60*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.59	0.60	0.60					0.60
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.62							0.62
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.61							0.61
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.56*	*0.56*	*0.56*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.56	0.56	0.56
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*1.66*	*1.66*						*1.66*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		1.66	1.66						1.66
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*2.55*	*2.55*				*2.55*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				2.55	2.55				2.55
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.82*	*0.82*						*0.82*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.82	0.82						0.82
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.59*			*0.59*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.59			0.59
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.44*	*0.44*	*0.44*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.44	0.44	0.44
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.82*	*0.82*	*0.82*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.82	0.82	0.82
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.01	0.09	0.06	0.05	0.02	0.11	0.11	0.08	0.11
	Offsite Haul Routes (Marysville & Prairie City)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Alternative #1 Total	**2.33**	**6.72**	**8.69**	**6.41**	**4.20**	**1.59**	**2.82**	**1.92**	**8.69**

Summary of $PM_{2.5}$ Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	3.7	3.7	3.7						3.7
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	1.2	1.2	1.2						1.2
	Auxiliary Spillway Borrow Development Period	4.8	4.8	4.9						4.9
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			0.9	0.8	0.8				0.9
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			111.5	111.5	111.5				111.5
	Crushing Fugitives - AP-42			1.2	1.2	1.2				1.2
	Auxiliary Spillway			113.5	113.5	113.5				113.5
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			1.2	1.2	1.2				1.2
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			na	na	na				0.0
	Crushing Fugitives - AP-42			na	na	na				0.0
	Tunnel Construction			1.2	1.2	1.2				1.2
	Grading - URBEMIS		31.4	na	na					31.4
	Onsite Exhaust - El Dorado CEQA			2.8	2.7					2.8
	Local Haul Routes - EMFAC2002			0.0	0.0					0.0
	Concrete Batch Plant - AP-42			na	na					0.0
	Crushing Fugitives - AP-42			na	na					0.0
	RWD Construction		31.4	2.8	2.7					31.4
	Grading - URBEMIS			10.0			na	na		10.0
	Onsite Exhaust - El Dorado CEQA						1.4	1.4		1.4
	Local Haul Routes - EMFAC2002						0.1	0.1		0.1
	Concrete Batch Plant - AP-42						111.5	111.5		111.5
	Crushing Fugitives - AP-42						1.2	1.2		1.2
	LWD Construction			10.0			114.2	114.2		114.2
	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	2.4	2.4	2.4						2.4
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	na	na	na						0.0
	Bridge Spoils Excavation	2.4	2.4	2.4						2.4
	Grading - URBEMIS		na	na	na					0.0
	Onsite Exhaust - El Dorado CEQA		2.9	3.0	2.9					3.0
	Local Haul Routes - EMFAC2002		na	na	na					0.0
	Concrete Batch Plant - AP-42		na	na	na					0.0
	Crushing Fugitives - AP-42		1.2	1.2	1.2					1.2
	Beals Pt. Borrow Dev.		4.1	4.1	4.1					4.1
	Grading - URBEMIS		6.4							6.4
	Onsite Exhaust - El Dorado CEQA		2.2							2.2
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 5 Materials		8.6							8.6
	Grading - URBEMIS		3.6							3.6
	Onsite Exhaust - El Dorado CEQA		2.2							2.2
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 6 Materials		5.8							5.8
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							2.8	2.8	2.8
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Mooney Ridge Const.							2.8	2.8	2.8
	Grading - URBEMIS		9.0	na						9.0
	Onsite Exhaust - El Dorado CEQA		0.0	0.0						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		1.2	1.2						1.2
	MIAD Borrow Dev.		10.2	1.2						10.2
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		2.5	2.4						2.5
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Excavate & Repl. Foundation		2.5	2.4						2.5
	Grading - URBEMIS				na	na				0.0
	Onsite Exhaust - El Dorado CEQA				2.9	2.9				2.9
	Local Haul Routes - EMFAC2002				0.0	0.0				0.0
	Concrete Batch Plant - AP-42				na	na				0.0
	Crushing Fugitives - AP-42				na	na				0.0
	MIAD Shell & Raise				2.9	2.9				2.9
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		1.3	1.3						1.3
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		111.5	111.5						111.5
	Crushing Fugitives - AP-42		1.2	1.2						1.2
	MIAD Jet Grouting		114.0	114.0						114.0
	Grading - URBEMIS		4.2				na			4.2
	Onsite Exhaust - El Dorado CEQA						2.0			2.0
	Local Haul Routes - EMFAC2002						0.0			0.0
	Concrete Batch Plant - AP-42						na			0.0
	Crushing Fugitives - AP-42						na			0.0
	Dike 7& 8 Const.		4.2				2.0			4.2
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							2.9	2.9	2.9
	Local Haul Routes - EMFAC2002							na	na	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							1.2	1.2	1.2
	Granite Bay Borrow Dev.							4.1	4.1	4.1
	Grading - URBEMIS							8.2	8.2	8.2
	Onsite Exhaust - El Dorado CEQA							2.1	2.1	2.1
	Local Haul Routes - EMFAC2002							0.1	0.1	0.1
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Dikes 1, 2, 3 & 4 Const.							10.4	10.4	10.4
	Grading - URBEMIS					0.0		na	na	0.0
	Onsite Exhaust - El Dorado CEQA							0.0	0.0	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							1.2	1.2	1.2
	Main Concrete Dam Tendon & Shears					0.0		1.2	1.2	1.2
	Internal Haul Routes	0.1	1.5	1.3	0.6	0.3	1.7	2.5	2.3	2.5
	Offsite Haul Routes (Marysville & Prairie City)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Alternative #5 Total	**7.8**	**190.0**	**258.3**	**125.4**	**118.4**	**118.4**	**135.7**	**21.2**	**258.3**

Summary of $PM_{2.5}$ Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*3.7*	*3.7*	*3.7*						*3.7*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*1.2*	*1.2*	*1.2*						*1.2*
	Auxiliary Spillway Borrow Development Period	4.8	4.8	4.9						4.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*0.9*	*0.8*	*0.8*				*0.9*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*111.5*	*111.5*	*111.5*				*111.5*
	Crushing Fugitives - AP-42			*1.2*	*1.2*	*1.2*				*1.2*
	Auxiliary Spillway			113.5	113.5	113.5				113.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.2*	*1.2*	*1.2*				*1.2*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.2	1.2	1.2				1.2
	Grading - URBEMIS		*17.0*	*na*	*na*					*17.0*
	Onsite Exhaust - El Dorado CEQA			*2.8*	*2.7*					*2.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		17.0	2.8	2.7					17.0
	Grading - URBEMIS			*5.8*			*na*	*na*		*5.8*
	Onsite Exhaust - El Dorado CEQA						*1.4*	*1.4*		*1.4*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*111.5*	*111.5*		*111.5*
	Crushing Fugitives - AP-42						*1.2*	*1.2*		*1.2*
	LWD Construction			5.8			114.1	114.1		114.1
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.4*	*2.4*	*2.4*						*2.4*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.4	2.4	2.4						2.4
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.9*	*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*	*1.2*					*1.2*
	Beals Pt. Borrow Dev.		4.1	4.1	4.1					4.1
	Grading - URBEMIS		*3.3*							*3.3*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		5.6							5.6
	Grading - URBEMIS		*1.9*							*1.9*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.2*							*0.2*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		4.3							4.3
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.8*	*2.8*	*2.8*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							2.8	2.8	2.8
	Grading - URBEMIS		*4.8*	*na*						*4.8*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Borrow Dev.		6.0	1.2						6.0
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.5*	*2.4*						*2.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.5	2.4						2.5
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*2.9*	*2.9*				*2.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				2.9	2.9				2.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.3*	*1.3*						*1.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*111.5*	*111.5*						*111.5*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Jet Grouting		114.0	114.0						114.0
	Grading - URBEMIS		*2.4*				*na*			*2.4*
	Onsite Exhaust - El Dorado CEQA						*2.0*			*2.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		2.4				2.1			2.4
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.9*	*2.9*	*2.9*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Granite Bay Borrow Dev.							4.1	4.1	4.1
	Grading - URBEMIS							*4.7*	*4.6*	*4.7*
	Onsite Exhaust - El Dorado CEQA							*2.1*	*2.1*	*2.1*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							6.9	6.7	6.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Main Concrete Dam Tendon & Shears					0.0		1.2	1.2	1.2
	Internal Haul Routes	0.1	1.4	0.9	1.0	0.5	2.7	4.8	4.3	4.8
	Offsite Haul Routes (Marysville & Praine City)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Alternative #4 Total	**7.7**	**164.8**	**253.5**	**125.7**	**118.5**	**119.2**	**134.1**	**19.4**	**253.5**

Summary of $PM_{2.5}$ Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*3.7*	*3.7*	*3.7*						*3.7*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*1.2*	*1.2*	*1.2*						*1.2*
	Auxiliary Spillway Borrow Development Period	4.8	4.8	4.9						4.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*0.9*	*0.8*	*0.8*				*0.9*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*111.5*	*111.5*	*111.5*				*111.5*
	Crushing Fugitives - AP-42			*1.2*	*1.2*	*1.2*				*1.2*
	Auxiliary Spillway			113.5	113.5	113.5				113.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.2*	*1.2*	*1.2*				*1.2*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.2	1.2	1.2				1.2
	Grading - URBEMIS		*5.6*	*na*	*na*					*5.6*
	Onsite Exhaust - El Dorado CEQA			*2.8*	*2.7*					*2.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		5.6	2.8	2.7					5.6
	Grading - URBEMIS			*6.8*			*na*	*na*		*6.8*
	Onsite Exhaust - El Dorado CEQA						*1.4*	*1.4*		*1.4*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*111.5*	*111.5*		*111.5*
	Crushing Fugitives - AP-42						*1.2*	*1.2*		*1.2*
	LWD Construction			6.8			114.1	114.1		114.1
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.4*	*2.4*	*2.4*						*2.4*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.4	2.4	2.4						2.4
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.9*	*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*	*1.2*					*1.2*
	Beals Pt. Borrow Dev.		4.1	4.1	4.1					4.1
	Grading - URBEMIS		*4.1*							*4.1*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		6.3							6.3
	Grading - URBEMIS		*2.4*							*2.4*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		4.6							4.6
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.8*	*2.8*	*2.8*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							2.8	2.8	2.8
	Grading - URBEMIS		*35.6*	*na*						*35.6*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Borrow Dev.		36.8	1.2						36.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.5*	*2.4*						*2.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.5	2.4						2.5
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*2.9*	*2.9*				*2.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				2.9	2.9				2.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.3*	*1.3*						*1.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*111.5*	*111.5*						*111.5*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Jet Grouting		114.0	114.0						114.0
	Grading - URBEMIS		*1.7*				*na*			*1.7*
	Onsite Exhaust - El Dorado CEQA						*2.0*			*2.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		1.7				2.0			2.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.9*	*2.9*	*2.9*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Granite Bay Borrow Dev.							4.1	4.1	4.1
	Grading - URBEMIS							*2.3*	*2.3*	*2.3*
	Onsite Exhaust - El Dorado CEQA							*2.1*	*2.1*	*2.1*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							4.5	4.5	4.5
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Main Concrete Dam Tendon & Shears					0.0		1.2	1.2	1.2
	Internal Haul Routes	0.1	1.5	3.8	3.9	0.6	6.0	5.8	2.2	6.0
	Offsite Haul Routes (Marysville & Prairie City)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Alternative #3 IFA Total	**7.6**	**184.6**	**257.4**	**128.6**	**118.5**	**122.4**	**132.8**	**15.0**	**257.4**

Summary of $PM_{2.5}$ Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*3.7*	*3.7*	*3.7*						*3.7*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*1.2*	*1.2*	*1.2*						*1.2*
	Auxiliary Spillway Borrow Development Period	4.8	4.8	4.9						4.9
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*0.9*	*0.8*	*0.8*				*0.9*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*111.5*	*111.5*	*111.5*				*111.5*
	Crushing Fugitives - AP-42			*1.2*	*1.2*	*1.2*				*1.2*
	Auxiliary Spillway			113.5	113.5	113.5				113.5
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.2*	*1.2*	*1.2*				*1.2*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.2	1.2	1.2				1.2
	Grading - URBEMIS		*0.6*	*na*	*na*					*0.6*
	Onsite Exhaust - El Dorado CEQA			*2.8*	*2.7*					*2.8*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		0.6	2.8	2.7					2.8
	Grading - URBEMIS			*0.2*			*na*	*na*		*0.2*
	Onsite Exhaust - El Dorado CEQA						*1.4*	*1.4*		*1.4*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*111.5*	*111.5*		*111.5*
	Crushing Fugitives - AP-42						*1.2*	*1.2*		*1.2*
	LWD Construction			0.2			114.1	114.1		114.1
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.4*	*2.4*	*2.4*						*2.4*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.4	2.4	2.4						2.4
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.9*	*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*	*1.2*					*1.2*
	Beals Pt. Borrow Dev.		4.1	4.1	4.1					4.1
	Grading - URBEMIS		*0.8*							*0.8*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		3.0							3.0
	Grading - URBEMIS		*0.6*							*0.6*
	Onsite Exhaust - El Dorado CEQA		*2.2*							*2.2*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		2.8							2.8
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.8*	*2.8*	*2.8*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							2.8	2.8	2.8
	Grading - URBEMIS		*4.4*	*na*						*4.4*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Borrow Dev.		5.6	1.2						5.6
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.5*	*2.4*						*2.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.5	2.4						2.5
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*2.9*	*2.9*				*2.9*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				2.9	2.9				2.9
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.3*	*1.3*						*1.3*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*111.5*	*111.5*						*111.5*
	Crushing Fugitives - AP-42		*1.2*	*1.2*						*1.2*
	MIAD Jet Grouting		114.0	114.0						114.0
	Grading - URBEMIS		*0.4*				*na*			*0.4*
	Onsite Exhaust - El Dorado CEQA						*2.0*			*2.0*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		0.4				2.1			2.1
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*2.9*	*2.9*	*2.9*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Granite Bay Borrow Dev.							4.1	4.1	4.1
	Grading - URBEMIS							*0.7*	*0.7*	*0.7*
	Onsite Exhaust - El Dorado CEQA							*2.1*	*2.1*	*2.1*
	Local Haul Routes - EMFAC2002							*0.1*	*0.1*	*0.1*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							2.9	2.9	2.9
	Grading - URBEMIS					*0.0*		*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*1.2*	*1.2*	*1.2*
	Main Concrete Dam Tendon & Shears					0.0		1.2	1.2	1.2
	Internal Haul Routes	0.2	4.8	3.8	3.7	0.4	11.7	10.2	3.5	11.7
	Offsite Haul Routes (Marysville & Praine City)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Alternative #2 SOD Total	**7.5**	**145.1**	**250.5**	**128.1**	**118.0**	**128.0**	**135.3**	**14.5**	**250.5**

Summary of $PM_{2.5}$ Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	3.7	3.7	3.7						3.7
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	1.2	1.2	1.2						1.2
	Auxiliary Spillway Borrow Development Period	4.8	4.8	4.9						4.9
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			0.9	0.8	0.8				0.9
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			111.5	111.5	111.5				111.5
	Crushing Fugitives - AP-42			1.2	1.2	1.2				1.2
	Auxiliary Spillway			113.5	113.5	113.5				113.5
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			1.2	1.2	1.2				1.2
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			na	na	na				0.0
	Crushing Fugitives - AP-42			na	na	na				0.0
	Tunnel Construction			1.2	1.2	1.2				1.2
	Grading - URBEMIS		0.1	na	na					0.1
	Onsite Exhaust - El Dorado CEQA			2.8	2.7					2.8
	Local Haul Routes - EMFAC2002			0.0	0.0					0.0
	Concrete Batch Plant - AP-42			na	na					0.0
	Crushing Fugitives - AP-42			na	na					0.0
	RWD Construction		0.1	2.8	2.7					2.8
	Grading - URBEMIS			0.2			na	na		0.2
	Onsite Exhaust - El Dorado CEQA						1.4	1.4		1.4
	Local Haul Routes - EMFAC2002						0.0	0.0		0.0
	Concrete Batch Plant - AP-42						111.5	111.5		111.5
	Crushing Fugitives - AP-42						1.2	1.2		1.2
	LWD Construction			0.2			114.1	114.1		114.1
	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	2.4	2.4	2.4						2.4
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	na	na	na						0.0
	Bridge Spoils Excavation	2.4	2.4	2.4						2.4
	Grading - URBEMIS		na	na	na					0.0
	Onsite Exhaust - El Dorado CEQA		2.9	3.0	2.9					3.0
	Local Haul Routes - EMFAC2002		na	na	na					0.0
	Concrete Batch Plant - AP-42		na	na	na					0.0
	Crushing Fugitives - AP-42		1.2	1.2	1.2					1.2
	Beals Pt. Borrow Dev.		4.1	4.1	4.1					4.1
	Grading - URBEMIS		1.8							1.8
	Onsite Exhaust - El Dorado CEQA		2.2							2.2
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 5 Materials		4.1							4.1
	Grading - URBEMIS		1.1							1.1
	Onsite Exhaust - El Dorado CEQA		2.2							2.2
	Local Haul Routes - EMFAC2002		0.0							0.0
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 6 Materials		3.3							3.3
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							2.8	2.8	2.8
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Mooney Ridge Const.							2.8	2.8	2.8
	Grading - URBEMIS		0.4	na						0.4
	Onsite Exhaust - El Dorado CEQA		0.0	0.0						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		1.2	1.2						1.2
	MIAD Borrow Dev.		1.6	1.2						1.6
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		2.5	2.4						2.5
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Excavate & Repl. Foundation		2.5	2.4						2.5
	Grading - URBEMIS				na	na				0.0
	Onsite Exhaust - El Dorado CEQA				2.9	2.9				2.9
	Local Haul Routes - EMFAC2002				0.0	0.0				0.0
	Concrete Batch Plant - AP-42				na	na				0.0
	Crushing Fugitives - AP-42				na	na				0.0
	MIAD Shell & Raise				2.9	2.9				2.9
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		1.3	1.3						1.3
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		111.5	111.5						111.5
	Crushing Fugitives - AP-42		1.2	1.2						1.2
	MIAD Jet Grouting		114.0	114.0						114.0
	Grading - URBEMIS		0.8				na			0.8
	Onsite Exhaust - El Dorado CEQA						2.0			2.0
	Local Haul Routes - EMFAC2002						0.0			0.0
	Concrete Batch Plant - AP-42						na			0.0
	Crushing Fugitives - AP-42						na			0.0
	Dike 7& 8 Const.		0.8				2.0			2.0
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							2.9	2.9	2.9
	Local Haul Routes - EMFAC2002							na	na	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							1.2	1.2	1.2
	Granite Bay Borrow Dev.							4.1	4.1	4.1
	Grading - URBEMIS							1.0	1.0	1.0
	Onsite Exhaust - El Dorado CEQA							2.1	2.1	2.1
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Dikes 1, 2, 3 & 4 Const.							3.2	3.1	3.2
	Grading - URBEMIS					0.0				0.0
	Onsite Exhaust - El Dorado CEQA							0.0	0.0	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							1.2	1.2	1.2
	Main Concrete Dam Tendon & Shears					0.0		1.2	1.2	1.2
	Internal Haul Routes	0.2	5.3	3.8	3.7	0.3	12.5	10.9	4.0	12.5
	Offsite Haul Routes (Marysville & Prairie City)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Alternative #1 Total	**7.5**	**143.0**	**250.6**	**128.2**	**118.0**	**128.7**	**136.2**	**15.2**	**250.6**

Summary of PM_{10} Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*4.0*	*4.0*	*4.0*						*4.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*13.6*	*13.6*	*13.6*						*13.6*
	Auxiliary Spillway Borrow Development Period	17.6	17.6	17.7						17.7
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.0*	*0.9*	*0.9*				*1.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*165.4*	*165.4*	*165.4*				*165.4*
	Crushing Fugitives - AP-42			*13.6*	*13.6*	*13.6*				*13.6*
	Auxiliary Spillway			180.0	179.9	179.9				180.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.3*	*1.3*	*1.3*				*1.3*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.3	1.3	1.3				1.3
	Grading - URBEMIS		*150.9*	*na*	*na*					*150.9*
	Onsite Exhaust - El Dorado CEQA			*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		150.9	3.0	2.9					150.9
	Grading - URBEMIS			*48.2*			*na*	*na*		*48.2*
	Onsite Exhaust - El Dorado CEQA						*1.6*	*1.6*		*1.6*
	Local Haul Routes - EMFAC2002						*0.5*	*0.5*		*0.5*
	Concrete Batch Plant - AP-42						*165.4*	*165.4*		*165.4*
	Crushing Fugitives - AP-42						*13.6*	*13.6*		*13.6*
	LWD Construction			48.2			181.1	181.1		181.1
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.6*	*2.6*	*2.6*						*2.6*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*137.0*	*137.0*	*137.0*						*137.0*
	Bridge Spoils Excavation	139.5	139.5	139.6						139.6
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*3.2*	*3.2*	*3.2*					*3.2*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*137.0*	*137.0*	*137.0*					*137.0*
	Beals Pt. Borrow Dev.		140.2	140.2	140.2					140.2
	Grading - URBEMIS		*30.7*							*30.7*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*137.0*							*137.0*
	Dike 5 Materials		170.1							170.1
	Grading - URBEMIS		*17.3*							*17.3*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*137.0*							*137.0*
	Dike 6 Materials		156.8							156.8
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.0*	*3.0*	*3.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*137.0*	*137.0*	*137.0*
	Mooney Ridge Const.							140.0	140.0	140.0
	Grading - URBEMIS		*43.5*	*na*						*43.5*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*137.0*	*137.0*						*137.0*
	MIAD Borrow Dev.		180.5	137.0						180.5
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.7*	*2.7*						*2.7*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*137.0*	*137.0*						*137.0*
	MIAD Excavate & Repl. Foundation		139.7	139.6						139.7
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*3.1*	*3.1*				*3.1*
	Local Haul Routes - EMFAC2002				*0.1*	*0.1*				*0.1*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*137.0*	*137.0*				*137.0*
	MIAD Shell & Raise				140.2	140.2				140.2
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.5*	*1.5*						*1.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*137.0*	*137.0*						*137.0*
	MIAD Jet Grouting		138.4	138.4						138.4
	Grading - URBEMIS		*20.0*				*na*			*20.0*
	Onsite Exhaust - El Dorado CEQA						*2.2*			*2.2*
	Local Haul Routes - EMFAC2002						*0.0*			*0.0*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*137.0*			*137.0*
	Dike 7& 8 Const.		20.0				139.2			139.2
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.1*	*3.1*	*3.1*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*137.0*	*137.0*	*137.0*
	Granite Bay Borrow Dev.							140.1	140.1	140.1
	Grading - URBEMIS							*39.7*	*39.6*	*39.7*
	Onsite Exhaust - El Dorado CEQA							*2.3*	*2.3*	*2.3*
	Local Haul Routes - EMFAC2002							*0.3*	*0.3*	*0.3*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*137.0*	*137.0*	*137.0*
	Dikes 1, 2, 3 & 4 Const.							179.2	179.1	179.2
	Grading - URBEMIS					*0.1*		*na*	*na*	*0.1*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*137.0*	*137.0*	*137.0*
	Main Concrete Dam Tendon & Shears					0.1		137.0	137.0	137.0
	Internal Haul Routes	0.8	8.5	7.1	3.3	1.9	9.5	14.0	12.8	14.0
	Offsite Haul Routes (Marysville & Prairie City)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	Alternative #5 Total	**159.8**	**1264.1**	**953.9**	**469.7**	**325.3**	**331.7**	**793.4**	**610.9**	**1264.1**

Summary of PM_{10} Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	4.0	4.0	4.0						4.0
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	13.6	13.6	13.6						13.6
	Auxiliary Spillway Borrow Development Period	17.6	17.6	17.7						17.7
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			1.0	0.9	0.9				1.0
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			165.4	165.4	165.4				165.4
	Crushing Fugitives - AP-42			13.6	13.6	13.6				13.6
	Auxiliary Spillway			180.0	179.9	179.9				180.0
	Grading - URBEMIS			na	na	na				0.0
	Onsite Exhaust - El Dorado CEQA			1.3	1.3	1.3				1.3
	Local Haul Routes - EMFAC2002			na	na	na				0.0
	Concrete Batch Plant - AP-42			na	na	na				0.0
	Crushing Fugitives - AP-42			na	na	na				0.0
	Tunnel Construction			1.3	1.3	1.3				1.3
	Grading - URBEMIS		82.0	na	na					82.0
	Onsite Exhaust - El Dorado CEQA			3.0	2.9					3.0
	Local Haul Routes - EMFAC2002			0.0	0.0					0.0
	Concrete Batch Plant - AP-42			na	na					0.0
	Crushing Fugitives - AP-42			na	na					0.0
	RWD Construction		82.0	3.0	2.9					82.0
	Grading - URBEMIS			28.1			na	na		28.1
	Onsite Exhaust - El Dorado CEQA						1.6	1.6		1.6
	Local Haul Routes - EMFAC2002						0.0	0.0		0.0
	Concrete Batch Plant - AP-42						165.4	165.4		165.4
	Crushing Fugitives - AP-42						13.6	13.6		13.6
	LWD Construction			28.1			180.6	180.6		180.6
	Grading - URBEMIS	na	na	na						0.0
	Onsite Exhaust - El Dorado CEQA	2.6	2.6	2.6						2.6
	Local Haul Routes - EMFAC2002	na	na	na						0.0
	Concrete Batch Plant - AP-42	na	na	na						0.0
	Crushing Fugitives - AP-42	na	na	na						0.0
	Bridge Spoils Excavation	2.6	2.6	2.6						2.6
	Grading - URBEMIS		na	na	na					0.0
	Onsite Exhaust - El Dorado CEQA		3.2	3.2	3.2					3.2
	Local Haul Routes - EMFAC2002		na	na	na					0.0
	Concrete Batch Plant - AP-42		na	na	na					0.0
	Crushing Fugitives - AP-42		13.6	13.6	13.6					13.6
	Beals Pt. Borrow Dev.		16.8	16.8	16.8					16.8
	Grading - URBEMIS		16.0							16.0
	Onsite Exhaust - El Dorado CEQA		2.4							2.4
	Local Haul Routes - EMFAC2002		0.1							0.1
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 5 Materials		18.5							18.5
	Grading - URBEMIS		9.1							9.1
	Onsite Exhaust - El Dorado CEQA		2.4							2.4
	Local Haul Routes - EMFAC2002		0.8							0.8
	Concrete Batch Plant - AP-42		na							0.0
	Crushing Fugitives - AP-42		na							0.0
	Dike 6 Materials		12.3							12.3
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							3.0	3.0	3.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Mooney Ridge Const.							3.0	3.0	3.0
	Grading - URBEMIS		23.1	na						23.1
	Onsite Exhaust - El Dorado CEQA		0.0	0.0						0.0
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		13.6	13.6						13.6
	MIAD Borrow Dev.		36.7	13.6						36.7
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		2.7	2.7						2.7
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		na	na						0.0
	Crushing Fugitives - AP-42		na	na						0.0
	MIAD Excavate & Repl. Foundation		2.7	2.7						2.7
	Grading - URBEMIS				na	na				0.0
	Onsite Exhaust - El Dorado CEQA				3.1	3.1				3.1
	Local Haul Routes - EMFAC2002				0.0	0.0				0.0
	Concrete Batch Plant - AP-42				na	na				0.0
	Crushing Fugitives - AP-42				na	na				0.0
	MIAD Shell & Raise				3.1	3.1				3.1
	Grading - URBEMIS		na	na						0.0
	Onsite Exhaust - El Dorado CEQA		1.5	1.5						1.5
	Local Haul Routes - EMFAC2002		na	na						0.0
	Concrete Batch Plant - AP-42		165.4	165.4						165.4
	Crushing Fugitives - AP-42		13.6	13.6						13.6
	MIAD Jet Grouting		180.5	180.5						180.5
	Grading - URBEMIS		11.4				na			11.4
	Onsite Exhaust - El Dorado CEQA						2.2			2.2
	Local Haul Routes - EMFAC2002						0.1			0.1
	Concrete Batch Plant - AP-42						na			0.0
	Crushing Fugitives - AP-42						na			0.0
	Dike 7& 8 Const.		11.4				2.3			11.4
	Grading - URBEMIS							na	na	0.0
	Onsite Exhaust - El Dorado CEQA							3.1	3.1	3.1
	Local Haul Routes - EMFAC2002							na	na	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							13.6	13.6	13.6
	Granite Bay Borrow Dev.							16.7	16.7	16.7
	Grading - URBEMIS							22.8	22.1	22.8
	Onsite Exhaust - El Dorado CEQA							2.3	2.3	2.3
	Local Haul Routes - EMFAC2002							0.2	0.2	0.2
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							na	na	0.0
	Dikes 1, 2, 3 & 4 Const.							25.3	24.5	25.3
	Grading - URBEMIS					0.1		na	na	0.1
	Onsite Exhaust - El Dorado CEQA							0.0	0.0	0.0
	Local Haul Routes - EMFAC2002							0.0	0.0	0.0
	Concrete Batch Plant - AP-42							na	na	0.0
	Crushing Fugitives - AP-42							13.6	13.6	13.6
	Main Concrete Dam Tendon & Shears					0.1		13.6	13.6	13.6
	Internal Haul Routes	0.8	7.7	5.0	5.6	3.0	15.2	26.9	24.2	26.9
	Offsite Haul Routes (Marysville & Prairie City)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	Alternative #4 Total	**22.3**	**390.1**	**457.5**	**211.0**	**188.8**	**199.5**	**267.5**	**83.5**	**452.5**

Summary of PM_{10} Emissions (lb/day)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*4.0*	*4.0*	*4.0*						*4.0*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*13.6*	*13.6*	*13.6*						*13.6*
	Auxiliary Spillway Borrow Development Period	17.6	17.6	17.7						17.7
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.0*	*0.9*	*0.9*				*1.0*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*165.4*	*165.4*	*165.4*				*165.4*
	Crushing Fugitives - AP-42			*13.6*	*13.6*	*13.6*				*13.6*
	Auxiliary Spillway			180.0	179.9	179.9				180.0
	Grading - URBEMIS			*na*	*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA			*1.3*	*1.3*	*1.3*				*1.3*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.0*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.0*
	Tunnel Construction			1.3	1.3	1.3				1.3
	Grading - URBEMIS		*26.8*	*na*	*na*					*26.8*
	Onsite Exhaust - El Dorado CEQA			*3.0*	*2.9*					*3.0*
	Local Haul Routes - EMFAC2002			*0.0*	*0.0*					*0.0*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.0*
	Crushing Fugitives - AP-42			*na*	*na*					*0.0*
	RWD Construction		26.8	3.0	2.9					26.8
	Grading - URBEMIS			*32.9*			*na*	*na*		*32.9*
	Onsite Exhaust - El Dorado CEQA						*1.6*	*1.6*		*1.6*
	Local Haul Routes - EMFAC2002						*0.0*	*0.0*		*0.0*
	Concrete Batch Plant - AP-42						*165.4*	*165.4*		*165.4*
	Crushing Fugitives - AP-42						*13.6*	*13.6*		*13.6*
	LWD Construction			32.9			180.6	180.6		180.6
	Grading - URBEMIS	*na*	*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA	*2.6*	*2.6*	*2.6*						*2.6*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.0*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.0*
	Bridge Spoils Excavation	2.6	2.6	2.6						2.6
	Grading - URBEMIS		*na*	*na*	*na*					*0.0*
	Onsite Exhaust - El Dorado CEQA		*3.2*	*3.2*	*3.2*					*3.2*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*	*13.6*					*13.6*
	Beals Pt. Borrow Dev.		16.8	16.8	16.8					16.8
	Grading - URBEMIS		*19.6*							*19.6*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.0*							*0.0*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 5 Materials		22.0							22.0
	Grading - URBEMIS		*11.5*							*11.5*
	Onsite Exhaust - El Dorado CEQA		*2.4*							*2.4*
	Local Haul Routes - EMFAC2002		*0.1*							*0.1*
	Concrete Batch Plant - AP-42		*na*							*0.0*
	Crushing Fugitives - AP-42		*na*							*0.0*
	Dike 6 Materials		14.0							14.0
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.0*	*3.0*	*3.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Mooney Ridge Const.							3.0	3.0	3.0
	Grading - URBEMIS		*171.2*	*na*						*171.2*
	Onsite Exhaust - El Dorado CEQA		*0.0*	*0.0*						*0.0*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Borrow Dev.		184.8	13.6						184.8
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*2.7*	*2.7*						*2.7*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.0*
	Crushing Fugitives - AP-42		*na*	*na*						*0.0*
	MIAD Excavate & Repl. Foundation		2.7	2.7						2.7
	Grading - URBEMIS				*na*	*na*				*0.0*
	Onsite Exhaust - El Dorado CEQA				*3.1*	*3.1*				*3.1*
	Local Haul Routes - EMFAC2002				*0.0*	*0.0*				*0.0*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.0*
	Crushing Fugitives - AP-42				*na*	*na*				*0.0*
	MIAD Shell & Raise				3.1	3.1				3.1
	Grading - URBEMIS		*na*	*na*						*0.0*
	Onsite Exhaust - El Dorado CEQA		*1.5*	*1.5*						*1.5*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.0*
	Concrete Batch Plant - AP-42		*165.4*	*165.4*						*165.4*
	Crushing Fugitives - AP-42		*13.6*	*13.6*						*13.6*
	MIAD Jet Grouting		180.5	180.5						180.5
	Grading - URBEMIS		*8.3*				*na*			*8.3*
	Onsite Exhaust - El Dorado CEQA						*2.2*			*2.2*
	Local Haul Routes - EMFAC2002						*0.1*			*0.1*
	Concrete Batch Plant - AP-42						*na*			*0.0*
	Crushing Fugitives - AP-42						*na*			*0.0*
	Dike 7& 8 Const.		8.3				2.3			8.3
	Grading - URBEMIS							*na*	*na*	*0.0*
	Onsite Exhaust - El Dorado CEQA							*3.1*	*3.1*	*3.1*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Granite Bay Borrow Dev.							16.7	16.7	16.7
	Grading - URBEMIS							*11.1*	*11.0*	*11.1*
	Onsite Exhaust - El Dorado CEQA							*2.3*	*2.3*	*2.3*
	Local Haul Routes - EMFAC2002							*0.4*	*0.4*	*0.4*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*na*	*na*	*0.0*
	Dikes 1, 2, 3 & 4 Const.							13.7	13.6	13.7
	Grading - URBEMIS					*0.1*		*na*	*na*	*0.1*
	Onsite Exhaust - El Dorado CEQA							*0.0*	*0.0*	*0.0*
	Local Haul Routes - EMFAC2002							*0.0*	*0.0*	*0.0*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.0*
	Crushing Fugitives - AP-42							*13.6*	*13.6*	*13.6*
	Main Concrete Dam Tendon & Shears					0.1		13.6	13.6	13.6
	Internal Haul Routes	0.8	8.4	21.2	22.0	3.4	33.4	32.7	12.2	33.4
	Offsite Haul Routes (Marysville & Prairie City)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	Alternative #3 IFA Total	**22.1**	**485.6**	**473.4**	**227.2**	**189.0**	**217.4**	**261.5**	**60.3**	**485.6**

Summary of $PM_{2.5}$ Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.18*	*0.18*	*0.19*						*0.19*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*0.15*	*0.15*	*0.15*						*0.15*
	Auxiliary Spillway Borrow Development Period	0.34	0.34	0.34						0.34
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.10*	*0.10*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*14.71*	*14.71*	*14.71*				*14.71*
	Crushing Fugitives - AP-42			*0.15*	*0.15*	*0.15*				*0.15*
	Auxiliary Spillway			14.97	14.97	14.97				14.97
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.15*	*0.14*	*0.14*				*0.15*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.15	0.14	0.14				0.15
	Grading - URBEMIS		*3.96*	*na*	*na*					*3.96*
	Onsite Exhaust - El Dorado CEQA			*0.25*	*0.24*					*0.25*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		3.96	0.25	0.24					3.96
	Grading - URBEMIS			*1.27*			*na*	*na*		*1.27*
	Onsite Exhaust - El Dorado CEQA						*0.13*	*0.13*		*0.13*
	Local Haul Routes - EMFAC2002						*0.02*	*0.02*		*0.02*
	Concrete Batch Plant - AP-42						*14.71*	*14.71*		*14.71*
	Crushing Fugitives - AP-42						*0.15*	*0.15*		*0.15*
	LWD Construction			1.27			15.02	15.02		15.02
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.16*	*0.16*	*0.16*						*0.16*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.16	0.16	0.16						0.16
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.09*	*0.09*	*0.09*					*0.09*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*	*0.15*					*0.15*
	Beals Pt. Borrow Dev.		0.24	0.24	0.24					0.24
	Grading - URBEMIS		*0.80*							*0.80*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.91							0.91
	Grading - URBEMIS		*0.46*							*0.46*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.56							0.56
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.08*	*0.08*	*0.08*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.08	0.08	0.08
	Grading - URBEMIS		*1.14*	*na*						*1.14*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Borrow Dev.		1.30	0.15						1.30
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.26*	*0.26*						*0.26*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		*0.26*	0.26						0.26
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.39*	*0.39*				*0.39*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.39	0.39				0.39
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.12*	*0.12*						*0.12*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*14.71*	*14.71*						*14.71*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD 1et Grouting		14.99	14.99						14.99
	Grading - URBEMIS		*0.52*				*na*			*0.52*
	Onsite Exhaust - El Dorado CEQA						*0.09*			*0.09*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.52				0.09			0.52
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.06*	*0.06*	*0.06*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Granite Bay Borrow Dev.							0.22	0.22	0.22
	Grading - URBEMIS							*1.04*	*1.08*	*1.08*
	Onsite Exhaust - El Dorado CEQA							*0.13*	*0.13*	*0.13*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							1.18	1.22	1.22
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Main Concrete Dam Tendon & Shears					0.00		0.16	0.16	0.16
	Internal Haul Routes	0.01	0.09	0.10	0.10	0.02	0.16	0.17	0.13	0.17
	Offsite Haul Routes (Marysville & Praine City)	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
	Alternative #5 Total	**0.60**	**23.42**	**32.97**	**16.18**	**15.62**	**15.36**	**16.91**	**1.90**	**32.97**

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Summary of $PM_{2.5}$ Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.18*	*0.18*	*0.19*						*0.19*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*0.15*	*0.15*	*0.15*						*0.15*
	Auxiliary Spillway Borrow Development Period	0.34	0.34	0.34						0.34
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.10*	*0.10*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*14.71*	*14.71*	*14.71*				*14.71*
	Crushing Fugitives - AP-42			*0.15*	*0.15*	*0.15*				*0.15*
	Auxiliary Spillway			14.97	14.97	14.97				14.97
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.15*	*0.14*	*0.14*				*0.15*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.15	0.14	0.14				0.15
	Grading - URBEMIS		*2.15*	*na*	*na*					*2.15*
	Onsite Exhaust - El Dorado CEQA			*0.25*	*0.24*					*0.25*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		2.15	0.25	0.24					2.15
	Grading - URBEMIS			*0.74*			*na*	*na*		*0.74*
	Onsite Exhaust - El Dorado CEQA						*0.13*	*0.13*		*0.13*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*14.71*	*14.71*		*14.71*
	Crushing Fugitives - AP-42						*0.15*	*0.15*		*0.15*
	LWD Construction			0.74			15.00	15.00		15.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.16*	*0.16*	*0.16*						*0.16*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.16	0.16	0.16						0.16
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.09*	*0.09*	*0.09*					*0.09*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*	*0.15*					*0.15*
	Beals Pt. Borrow Dev.		0.24	0.24	0.24					0.24
	Grading - URBEMIS		*0.42*							*0.42*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.52							0.52
	Grading - URBEMIS		*0.24*							*0.24*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.03*							*0.03*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.36							0.36
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.08*	*0.08*	*0.08*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.08	0.08	0.08
	Grading - URBEMIS		*0.61*	*na*						*0.61*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Borrow Dev.		0.76	0.15						0.76
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.26*	*0.26*						*0.26*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.26	0.26						0.26
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.39*	*0.39*				*0.39*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.39	0.39				0.39
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.12*	*0.12*						*0.12*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*14.71*	*14.71*						*14.71*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Jet Grouting		14.99	14.99						14.99
	Grading - URBEMIS		*0.30*				*na*			*0.30*
	Onsite Exhaust - El Dorado CEQA						*0.09*			*0.09*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.30				0.10			0.30
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.06*	*0.06*	*0.06*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Granite Bay Borrow Dev.							0.22	0.22	0.22
	Grading - URBEMIS							*0.58*	*0.60*	*0.60*
	Onsite Exhaust - El Dorado CEQA							*0.13*	*0.13*	*0.13*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.71	0.74	0.74
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Main Concrete Dam Tendon & Shears					0.00		0.15	0.15	0.15
	Internal Haul Routes	0.01	0.08	0.09	0.09	0.02	0.15	0.22	0.18	0.22
	Offsite Haul Routes (Marysville & Prairie City)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Alternative #4 Total	**0.56**	**20.22**	**32.39**	**16.13**	**15.58**	**15.30**	**16.45**	**1.43**	**32.39**

Summary of $PM_{2.5}$ Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.18*	*0.18*	*0.19*						*0.19*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*0.15*	*0.15*	*0.15*						*0.15*
	Auxiliary Spillway Borrow Development Period	0.34	0.34	0.34						0.34
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.10*	*0.10*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*14.71*	*14.71*	*14.71*				*14.71*
	Crushing Fugitives - AP-42			*0.15*	*0.15*	*0.15*				*0.15*
	Auxiliary Spillway			14.97	14.97	14.97				14.97
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.15*	*0.14*	*0.14*				*0.15*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.15	0.14	0.14				0.15
	Grading - URBEMIS		*0.70*	*na*	*na*					*0.70*
	Onsite Exhaust - El Dorado CEQA			*0.25*	*0.24*					*0.25*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		*0.70*	*0.25*	*0.24*					*0.70*
	Grading - URBEMIS			*0.86*			*na*	*na*		*0.86*
	Onsite Exhaust - El Dorado CEQA						*0.13*	*0.13*		*0.13*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*14.71*	*14.71*		*14.71*
	Crushing Fugitives - AP-42						*0.15*	*0.15*		*0.15*
	LWD Construction			*0.86*			15.00	15.00		15.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.16*	*0.16*	*0.16*						*0.16*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.16	0.16	0.16						0.16
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.09*	*0.09*	*0.09*					*0.09*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*	*0.15*					*0.15*
	Beals Pt. Borrow Dev.		0.24	0.24	0.24					0.24
	Grading - URBEMIS		*0.52*							*0.52*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.62							0.62
	Grading - URBEMIS		*0.30*							*0.30*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.41							0.41
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.08*	*0.08*	*0.08*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.08	0.08	0.08
	Grading - URBEMIS		*4.50*	*na*						*4.50*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Borrow Dev.		4.65	0.15						4.65
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.26*	*0.26*						*0.26*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		*0.26*	*0.26*						*0.26*
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.39*	*0.39*				*0.39*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.39	0.39				0.39
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.12*	*0.12*						*0.12*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*14.71*	*14.71*						*14.71*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Jet Grouting		14.99	14.99						14.99
	Grading - URBEMIS		*0.22*				*na*			*0.22*
	Onsite Exhaust - El Dorado CEQA						*0.09*			*0.09*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		*0.22*				*0.09*			*0.22*
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.06*	*0.06*	*0.06*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Granite Bay Borrow Dev.							*0.22*	*0.22*	*0.22*
	Grading - URBEMIS							*0.29*	*0.30*	*0.30*
	Onsite Exhaust - El Dorado CEQA							*0.13*	*0.13*	*0.13*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							*0.43*	*0.44*	*0.44*
	Grading - URBEMIS					*0.00*				*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Main Concrete Dam Tendon & Shears					*0.00*		0.15	0.15	0.15
	Internal Haul Routes	*0.01*	*0.08*	*0.07*	*0.07*	*0.02*	*0.13*	*0.13*	*0.10*	*0.13*
	Offsite Haul Routes (Marysville & Prairie City)	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*
	Alternative #3 IFA Total	**0.56**	**22.72**	**32.50**	**16.11**	**15.58**	**15.28**	**16.07**	**1.06**	**32.50**

Summary of $PM_{2.5}$ Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.18*	*0.18*	*0.19*						*0.19*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*0.15*	*0.15*	*0.15*						*0.15*
	Auxiliary Spillway Borrow Development Period	0.34	0.34	0.34						0.34
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.10*	*0.10*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*14.71*	*14.71*	*14.71*				*14.71*
	Crushing Fugitives - AP-42			*0.15*	*0.15*	*0.15*				*0.15*
	Auxiliary Spillway			14.97	14.97	14.97				14.97
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.15*	*0.14*	*0.14*				*0.15*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.15	0.14	0.14				0.15
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*0.25*	*0.24*					*0.25*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.08	0.25	0.24					0.25
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*0.13*	*0.13*		*0.13*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*14.71*	*14.71*		*14.71*
	Crushing Fugitives - AP-42						*0.15*	*0.15*		*0.15*
	LWD Construction			0.02			15.00	15.00		15.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.16*	*0.16*	*0.16*						*0.16*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.16	0.16	0.16						0.16
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.09*	*0.09*	*0.09*					*0.09*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*	*0.15*					*0.15*
	Beals Pt. Borrow Dev.		0.24	0.24	0.24					0.24
	Grading - URBEMIS		*0.10*							*0.10*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.20							0.20
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.17							0.17
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.08*	*0.08*	*0.08*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.08	0.08	0.08
	Grading - URBEMIS		*0.56*	*na*						*0.56*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Borrow Dev.		0.71	0.15						0.71
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.26*	*0.26*						*0.26*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.26	0.26						0.26
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.39*	*0.39*				*0.39*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.39	0.39				0.39
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.12*	*0.12*						*0.12*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*14.71*	*14.71*						*14.71*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Jet Grouting		14.99	14.99						14.99
	Grading - URBEMIS		*0.05*				*na*			*0.05*
	Onsite Exhaust - El Dorado CEQA						*0.09*			*0.09*
	Local Haul Routes - EMFAC2002						*0.01*			*0.01*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.05				0.10			0.10
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.06*	*0.06*	*0.06*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Granite Bay Borrow Dev.							0.22	0.22	0.22
	Grading - URBEMIS							*0.09*	*0.09*	*0.09*
	Onsite Exhaust - El Dorado CEQA							*0.13*	*0.13*	*0.13*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.22	0.23	0.23
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Main Concrete Dam Tendon & Shears					0.00		0.15	0.15	0.15
	Internal Haul Routes	0.01	0.06	0.06	0.05	0.02	0.06	0.08	0.06	0.08
	Offsite Haul Routes (Marysville & Praine City)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Alternative #2 SOD Total	**0.52**	**17.28**	**31.61**	**16.04**	**15.53**	**15.17**	**15.77**	**0.76**	**31.61**

Summary of $PM_{2.5}$ Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.18*	*0.18*	*0.19*						*0.19*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*0.15*	*0.15*	*0.15*						*0.15*
	Auxiliary Spillway Borrow Development Period	0.34	0.34	0.34						0.34
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.10*	*0.10*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*14.71*	*14.71*	*14.71*				*14.71*
	Crushing Fugitives - AP-42			*0.15*	*0.15*	*0.15*				*0.15*
	Auxiliary Spillway			14.97	14.97	14.97				14.97
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.15*	*0.14*	*0.14*				*0.15*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.15	0.14	0.14				0.15
	Grading - URBEMIS		*0.01*	*na*	*na*					*0.01*
	Onsite Exhaust - El Dorado CEQA			*0.25*	*0.24*					*0.25*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.01	0.25	0.24					0.25
	Grading - URBEMIS			*0.03*			*na*	*na*		*0.03*
	Onsite Exhaust - El Dorado CEQA						*0.13*	*0.13*		*0.13*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*14.71*	*14.71*		*14.71*
	Crushing Fugitives - AP-42						*0.15*	*0.15*		*0.15*
	LWD Construction			0.03			15.00	15.00		15.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.16*	*0.16*	*0.16*						*0.16*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.16	0.16	0.16						0.16
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.09*	*0.09*	*0.09*					*0.09*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*	*0.15*					*0.15*
	Beals Pt. Borrow Dev.		0.24	0.24	0.24					0.24
	Grading - URBEMIS		*0.23*							*0.23*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.33							0.33
	Grading - URBEMIS		*0.14*							*0.14*
	Onsite Exhaust - El Dorado CEQA		*0.10*							*0.10*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.24							0.24
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.08*	*0.08*	*0.08*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.08	0.08	0.08
	Grading - URBEMIS		*0.06*	*na*						*0.06*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Borrow Dev.		0.21	0.15						0.21
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.26*	*0.26*						*0.26*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.26	0.26						0.26
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.39*	*0.39*				*0.39*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.39	0.39				0.39
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.12*	*0.12*						*0.12*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*14.71*	*14.71*						*14.71*
	Crushing Fugitives - AP-42		*0.15*	*0.15*						*0.15*
	MIAD Jet Grouting		14.99	14.99						14.99
	Grading - URBEMIS		*0.10*				*na*			*0.10*
	Onsite Exhaust - El Dorado CEQA						*0.09*			*0.09*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const		0.10				0.09			0.10
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.06*	*0.06*	*0.06*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Granite Bay Borrow Dev.							0.22	0.22	0.22
	Grading - URBEMIS							*0.13*	*0.14*	*0.14*
	Onsite Exhaust - El Dorado CEQA							*0.13*	*0.13*	*0.13*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.26	0.26	0.26
	Grading - URBEMIS					*0.00*				*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*0.15*	*0.15*	*0.15*
	Main Concrete Dam Tendon & Shears					0.00		0.15	0.15	0.15
	Internal Haul Routes	0.01	0.07	0.05	0.04	0.01	0.09	0.09	0.07	0.09
	Offsite Haul Routes (Marysville & Praine City)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Alternative #1 Total	**0.52**	**16.96**	**31.60**	**16.04**	**15.53**	**15.19**	**15.82**	**0.80**	**31.60**

Summary of PM_{10} Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.20*	*0.20*	*0.20*						*0.20*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*1.80*	*1.80*	*1.80*						*1.80*
	Auxiliary Spillway Borrow Development Period	2.00	2.00	2.00						2.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.11*	*0.11*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*21.83*	*21.83*	*21.83*				*21.83*
	Crushing Fugitives - AP-42			*1.80*	*1.80*	*1.80*				*1.80*
	Auxiliary Spillway			23.74	23.74	23.74				23.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.16*	*0.16*	*0.16*				*0.16*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.16	0.16	0.16				0.16
	Grading - URBEMIS		*19.07*	*na*	*na*					*19.07*
	Onsite Exhaust - El Dorado CEQA			*0.27*	*0.26*					*0.27*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		19.07	0.27	0.26					19.07
	Grading - URBEMIS			*6.09*			*na*	*na*		*6.09*
	Onsite Exhaust - El Dorado CEQA						*0.09*	*0.09*		*0.09*
	Local Haul Routes - EMFAC2002						*0.06*	*0.06*		*0.06*
	Concrete Batch Plant - AP-42						*21.83*	*21.83*		*21.83*
	Crushing Fugitives - AP-42						*1.80*	*1.80*		*1.80*
	LWD Construction			6.09			23.79	23.79		23.79
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.17*	*0.17*	*0.17*						*0.17*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.17	0.17	0.17						0.17
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.10*	*0.10*	*0.10*					*0.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*	*1.80*					*1.80*
	Beals Pt. Borrow Dev.		1.89	1.89	1.89					1.89
	Grading - URBEMIS		*3.87*							*3.87*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.99							3.99
	Grading - URBEMIS		*2.19*							*2.19*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		2.30							2.30
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.09*	*0.09*	*0.09*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.09	0.09	0.09
	Grading - URBEMIS		*5.50*	*na*						*5.50*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Borrow Dev.		7.30	1.80						7.30
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.29*	*0.28*						*0.29*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.29	0.28						0.29
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.42*	*0.42*				*0.42*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.43	0.43				0.43
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.13*	*0.13*						*0.13*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*21.83*	*21.83*						*21.83*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Jet Grouting		23.76	23.76						23.76
	Grading - URBEMIS		*2.52*				*na*			*2.52*
	Onsite Exhaust - El Dorado CEQA						*0.10*			*0.10*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		2.52				0.10			2.52
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.07*	*0.07*	*0.07*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Granite Bay Borrow Dev.							1.87	1.87	1.87
	Grading - URBEMIS							*5.01*	*5.22*	*5.22*
	Onsite Exhaust - El Dorado CEQA							*0.14*	*0.14*	*0.14*
	Local Haul Routes - EMFAC2002							*0.03*	*0.03*	*0.03*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							5.18	5.39	5.39
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Main Concrete Dam Tendon & Shears					0.00		1.80	1.80	1.80
	Internal Haul Routes	0.07	0.50	0.58	0.55	0.13	0.90	0.97	0.75	0.97
	Offsite Haul Routes (Marysville & Prairie City)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Alternative #5 Total	**2.58**	**64.13**	**61.09**	**27.38**	**24.80**	**25.13**	**34.04**	**10.25**	**64.13**

Summary of PM_{10} Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.20*	*0.20*	*0.20*						*0.20*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*1.80*	*1.80*	*1.80*						*1.80*
	Auxiliary Spillway Borrow Development Period	2.00	2.00	2.00						2.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.11*	*0.11*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*21.83*	*21.83*	*21.83*				*21.83*
	Crushing Fugitives - AP-42			*1.80*	*1.80*	*1.80*				*1.80*
	Auxiliary Spillway			23.74	23.74	23.74				23.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.16*	*0.16*	*0.16*				*0.16*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.16	0.16	0.16				0.16
	Grading - URBEMIS		*10.35*	*na*	*na*					*10.35*
	Onsite Exhaust - El Dorado CEQA			*0.27*	*0.26*					*0.27*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		10.35	0.27	0.26					10.35
	Grading - URBEMIS			*3.55*			*na*	*na*		*3.55*
	Onsite Exhaust - El Dorado CEQA						*0.09*	*0.09*		*0.09*
	Local Haul Routes - EMFAC2002						*0.01*	*0.01*		*0.01*
	Concrete Batch Plant - AP-42						*21.83*	*21.83*		*21.83*
	Crushing Fugitives - AP-42						*1.80*	*1.80*		*1.80*
	LWD Construction			3.55			23.73	23.73		23.73
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.17*	*0.17*	*0.17*						*0.17*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.17	0.17	0.17						0.17
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.10*	*0.10*	*0.10*					*0.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*	*1.80*					*1.80*
	Beals Pt. Borrow Dev.		1.89	1.89	1.89					1.89
	Grading - URBEMIS		*2.02*							*2.02*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		2.14							2.14
	Grading - URBEMIS		*1.14*							*1.14*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.10*							*0.10*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		1.35							1.35
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.09*	*0.09*	*0.09*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.09	0.09	0.09
	Grading - URBEMIS		*2.92*	*na*						*2.92*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Borrow Dev.		4.72	1.80						4.72
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.29*	*0.28*						*0.29*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.29	0.28						0.29
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.42*	*0.42*				*0.42*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.42	0.42				0.42
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.13*	*0.13*						*0.13*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*21.83*	*21.83*						*21.83*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Jet Grouting		23.76	23.76						23.76
	Grading - URBEMIS		*1.43*				*na*			*1.43*
	Onsite Exhaust - El Dorado CEQA						*0.10*			*0.10*
	Local Haul Routes - EMFAC2002						*0.02*			*0.02*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		1.43				0.12			1.43
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.07*	*0.07*	*0.07*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Granite Bay Borrow Dev.							1.87	1.87	1.87
	Grading - URBEMIS							*2.79*	*2.91*	*2.91*
	Onsite Exhaust - El Dorado CEQA							*0.14*	*0.14*	*0.14*
	Local Haul Routes - EMFAC2002							*0.02*	*0.02*	*0.02*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							2.95	3.07	3.07
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Main Concrete Dam Tendon & Shears					0.00		1.80	1.80	1.80
	Internal Haul Routes	0.07	0.44	0.49	0.50	0.13	0.81	1.25	1.01	1.25
	Offsite Haul Routes (Marysville & Prairie City)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
	Alternative #4 Total	**2.48**	**48.78**	**58.36**	**27.21**	**24.69**	**24.90**	**31.92**	**8.08**	**58.36**

Summary of PM_{10} Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.20*	*0.20*	*0.20*						*0.20*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*1.80*	*1.80*	*1.80*						*1.80*
	Auxiliary Spillway Borrow Development Period	2.00	2.00	2.00						2.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.11*	*0.11*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*21.83*	*21.83*	*21.83*				*21.83*
	Crushing Fugitives - AP-42			*1.80*	*1.80*	*1.80*				*1.80*
	Auxiliary Spillway			23.74	23.74	23.74				23.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.16*	*0.16*	*0.16*				*0.16*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.16	0.16	0.16				0.16
	Grading - URBEMIS		*3.37*	*na*	*na*					*3.37*
	Onsite Exhaust - El Dorado CEQA			*0.27*	*0.26*					*0.27*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		3.37	0.27	0.27					3.37
	Grading - URBEMIS			*4.15*			*na*	*na*		*4.15*
	Onsite Exhaust - El Dorado CEQA						*0.09*	*0.09*		*0.09*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*21.83*	*21.83*		*21.83*
	Crushing Fugitives - AP-42						*1.80*	*1.80*		*1.80*
	LWD Construction			4.15			23.72	23.72		23.72
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.17*	*0.17*	*0.17*						*0.17*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.17	0.17	0.17						0.17
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.10*	*0.10*	*0.10*					*0.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*	*1.80*					*1.80*
	Beals Pt. Borrow Dev.		1.89	1.89	1.89					1.89
	Grading - URBEMIS		*2.48*							*2.48*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		2.59							2.59
	Grading - URBEMIS		*1.46*							*1.46*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		1.58							1.58
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.09*	*0.09*	*0.09*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.09	0.09	0.09
	Grading - URBEMIS		*21.65*	*na*						*21.65*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Borrow Dev.		23.45	1.80						23.45
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.29*	*0.28*						*0.29*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.29	0.28						0.29
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.42*	*0.42*				*0.42*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.42	0.42				0.42
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.13*	*0.13*						*0.13*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*21.83*	*21.83*						*21.83*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Jet Grouting		23.76	23.76						23.76
	Grading - URBEMIS		*1.04*				*na*			*1.04*
	Onsite Exhaust - El Dorado CEQA						*0.10*			*0.10*
	Local Haul Routes - EMFAC2002						*0.01*			*0.01*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		1.04				0.11			1.04
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.07*	*0.07*	*0.07*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Granite Bay Borrow Dev.							1.87	1.87	1.87
	Grading - URBEMIS							*1.39*	*1.46*	*1.46*
	Onsite Exhaust - El Dorado CEQA							*0.14*	*0.14*	*0.14*
	Local Haul Routes - EMFAC2002							*0.05*	*0.05*	*0.05*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							1.57	1.64	1.64
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Main Concrete Dam Tendon & Shears					0.00		1.80	1.80	1.80
	Internal Haul Routes	0.07	0.45	0.40	0.40	0.11	0.72	0.71	0.56	0.72
	Offsite Haul Routes (Marysville & Prairie City)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	Alternative #3 IFA Total	**2.44**	**60.78**	**58.83**	**27.08**	**24.63**	**24.75**	**29.97**	**6.16**	**60.78**

Summary of PM_{10} Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.20*	*0.20*	*0.20*						*0.20*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*1.80*	*1.80*	*1.80*						*1.80*
	Auxiliary Spillway Borrow Development Period	2.00	2.00	2.00						2.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.11*	*0.11*	*0.11*				*0.11*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*21.83*	*21.83*	*21.83*				*21.83*
	Crushing Fugitives - AP-42			*1.80*	*1.80*	*1.80*				*1.80*
	Auxiliary Spillway			23.74	23.74	23.74				23.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.16*	*0.16*	*0.16*				*0.16*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.16	0.16	0.16				0.16
	Grading - URBEMIS		*0.38*	*na*	*na*					*0.38*
	Onsite Exhaust - El Dorado CEQA			*0.27*	*0.26*					*0.27*
	Local Haul Routes - EMFAC2002			*0.01*	*0.01*					*0.01*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.38	0.27	0.27					0.38
	Grading - URBEMIS			*0.12*			*na*	*na*		*0.12*
	Onsite Exhaust - El Dorado CEQA						*0.09*	*0.09*		*0.09*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*21.83*	*21.83*		*21.83*
	Crushing Fugitives - AP-42						*1.80*	*1.80*		*1.80*
	LWD Construction			0.12			23.72	23.72		23.72
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*0.17*	*0.17*	*0.17*						*0.17*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.17	0.17	0.17						0.17
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.10*	*0.10*	*0.10*					*0.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*	*1.80*					*1.80*
	Beals Pt. Borrow Dev.		1.89	1.89	1.89					1.89
	Grading - URBEMIS		*0.46*							*0.46*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.57							0.57
	Grading - URBEMIS		*0.35*							*0.35*
	Onsite Exhaust - El Dorado CEQA		*0.11*							*0.11*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.46							0.46
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.09*	*0.09*	*0.09*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.09	0.09	0.09
	Grading - URBEMIS		*2.70*	*na*						*2.70*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Borrow Dev.		4.50	1.80						4.50
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.29*	*0.28*						*0.29*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.29	0.28						0.29
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*0.42*	*0.42*				*0.42*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.42	0.42				0.42
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.13*	*0.13*						*0.13*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*21.83*	*21.83*						*21.83*
	Crushing Fugitives - AP-42		*1.80*	*1.80*						*1.80*
	MIAD Jet Grouting		23.76	23.76						23.76
	Grading - URBEMIS		*0.23*				*na*			*0.23*
	Onsite Exhaust - El Dorado CEQA						*0.10*			*0.10*
	Local Haul Routes - EMFAC2002						*0.02*			*0.02*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.23				0.12			0.23
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.07*	*0.07*	*0.07*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Granite Bay Borrow Dev.							1.87	1.87	1.87
	Grading - URBEMIS							*0.43*	*0.45*	*0.45*
	Onsite Exhaust - El Dorado CEQA							*0.14*	*0.14*	*0.14*
	Local Haul Routes - EMFAC2002							*0.03*	*0.03*	*0.03*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.60	0.62	0.62
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*1.80*	*1.80*	*1.80*
	Main Concrete Dam Tendon & Shears					0.00		1.80	1.80	1.80
	Internal Haul Routes	0.07	0.36	0.35	0.26	0.11	0.35	0.43	0.33	0.43
	Offsite Haul Routes (Marysville & Prairie City)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Alternative #2 SOD Total	**2.28**	**34.66**	**54.60**	**26.79**	**24.47**	**24.25**	**28.56**	**4.76**	**54.60**

Summary of PM_{10} Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	Grading - URBEMIS	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	0.20	0.20	0.20						0.20
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	1.80	1.80	1.80						1.80
	Auxiliary Spillway Borrow Development Period	2.00	2.00	2.00						2.00
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			0.11	0.11	0.11				0.11
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			21.83	21.83	21.83				21.83
	Crushing Fugitives - AP-42			1.80	1.80	1.80				1.80
	Auxiliary Spillway			23.74	23.74	23.74				23.74
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			0.16	0.16	0.16				0.16
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			na	na	na				0.00
	Crushing Fugitives - AP-42			na	na	na				0.00
	Tunnel Construction			0.16	0.16	0.16				0.16
	Grading - URBEMIS		0.04	na	na					0.04
	Onsite Exhaust - El Dorado CEQA			0.27	0.26					0.27
	Local Haul Routes - EMFAC2002			0.01	0.01					0.01
	Concrete Batch Plant - AP-42			na	na					0.00
	Crushing Fugitives - AP-42			na	na					0.00
	RWD Construction		0.04	0.28	0.27					0.28
	Grading - URBEMIS			0.13			na	na		0.13
	Onsite Exhaust - El Dorado CEQA						0.09	0.09		0.09
	Local Haul Routes - EMFAC2002						0.00	0.00		0.00
	Concrete Batch Plant - AP-42						21.83	21.83		21.83
	Crushing Fugitives - AP-42						1.80	1.80		1.80
	LWD Construction			0.13			23.72	23.72		23.72
	Grading - URBEMIS	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	0.17	0.17	0.17						0.17
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	na	na	na						0.00
	Bridge Spoils Excavation	0.17	0.17	0.17						0.17
	Grading - URBEMIS		na	na	na					0.00
	Onsite Exhaust - El Dorado CEQA		0.10	0.10	0.10					0.10
	Local Haul Routes - EMFAC2002		na	na	na					0.00
	Concrete Batch Plant - AP-42		na	na	na					0.00
	Crushing Fugitives - AP-42		1.80	1.80	1.80					1.80
	Beals Pt. Borrow Dev.		1.89	1.89	1.89					1.89
	Grading - URBEMIS		1.11							1.11
	Onsite Exhaust - El Dorado CEQA		0.11							0.11
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 5 Materials		1.22							1.22
	Grading - URBEMIS		0.66							0.66
	Onsite Exhaust - El Dorado CEQA		0.11							0.11
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 6 Materials		0.77							0.77
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							0.09	0.09	0.09
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Mooney Ridge Const.							0.09	0.09	0.09
	Grading - URBEMIS		0.27	na						0.27
	Onsite Exhaust - El Dorado CEQA		0.00	0.00						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		1.80	1.80						1.80
	MIAD Borrow Dev.		2.07	1.80						2.07
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		0.29	0.28						0.29
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Excavate & Repl. Foundation		0.29	0.28						0.29
	Grading - URBEMIS				na	na				0.00
	Onsite Exhaust - El Dorado CEQA				0.42	0.42				0.42
	Local Haul Routes - EMFAC2002				0.01	0.01				0.01
	Concrete Batch Plant - AP-42				na	na				0.00
	Crushing Fugitives - AP-42				na	na				0.00
	MIAD Shell & Raise				0.43	0.43				0.43
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		0.13	0.13						0.13
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		21.83	21.83						21.83
	Crushing Fugitives - AP-42		1.80	1.80						1.80
	MIAD Jet Grouting		23.76	23.76						23.76
	Grading - URBEMIS		0.47				na			0.47
	Onsite Exhaust - El Dorado CEQA						0.10			0.10
	Local Haul Routes - EMFAC2002						0.00			0.00
	Concrete Batch Plant - AP-42						na			0.00
	Crushing Fugitives - AP-42						na			0.00
	Dike 7& 8 Const		0.47				0.10			0.47
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							0.07	0.07	0.07
	Local Haul Routes - EMFAC2002							na	na	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							1.80	1.80	1.80
	Granite Bay Borrow Dev.							1.87	1.87	1.87
	Grading - URBEMIS							0.63	0.65	0.65
	Onsite Exhaust - El Dorado CEQA							0.14	0.14	0.14
	Local Haul Routes - EMFAC2002							0.01	0.01	0.01
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Dikes 1, 2, 3 & 4 Const							0.77	0.79	0.79
	Grading - URBEMIS					0.00		na	na	0.00
	Onsite Exhaust - El Dorado CEQA							0.00	0.00	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							1.80	1.80	1.80
	Main Concrete Dam Tendon & Shears					0.00		1.80	1.80	1.80
	Internal Haul Routes	0.07	0.42	0.27	0.23	0.08	0.49	0.49	0.39	0.49
	Offsite Haul Routes (Marysville & Prairie City)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Alternative #1 Total	**2.29**	**33.15**	**54.55**	**26.77**	**24.46**	**24.37**	**28.80**	**4.99**	**54.55**

Summary of SO_2 Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	0.00	0.00	0.00						0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.00	0.00	0.00				0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.00	0.00	0.00				0.00
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	0.00	0.00					0.00
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.00*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.00	0.00		0.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.00	0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.00	0.00	0.00					0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.00							0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.00							0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.00	0.00	0.00
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.00	0.00						0.00
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.00	0.00				0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.00	0.00						0.00
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.00*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.00			0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.00	0.00	0.00
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.00	0.00	0.00
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Offsite Haul Routes (Marysville & Prairie City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Alternative #5 Total	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01

Summary of SO_2 Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	0.00	0.00	0.00						0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.00	0.00	0.00				0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.00	0.00	0.00				0.00
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	0.00	0.00					0.00
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.00*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.00	0.00		0.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.00	0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.00	0.00	0.00					0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.00							0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.00							0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.00	0.00	0.00
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.00	0.00						0.00
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.00	0.00				0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.00	0.00						0.00
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.00*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.00			0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.00	0.00	0.00
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.00	0.00	0.00
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Offsite Haul Routes (Marysville & Prairie City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Alternative #4 Total	0.00	0.00	**0.00**	0.00	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**

Summary of SO_2 Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	Grading - URBEMIS	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.00
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	na	na	na						0.00
	Auxiliary Spillway Borrow Development Period	0.00	0.00	0.00						0.00
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.00
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			na	na	na				0.00
	Crushing Fugitives - AP-42			na	na	na				0.00
	Auxiliary Spillway			0.00	0.00	0.00				0.00
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.00
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			na	na	na				0.00
	Crushing Fugitives - AP-42			na	na	na				0.00
	Tunnel Construction			0.00	0.00	0.00				0.00
	Grading - URBEMIS		0.00	na	na					0.00
	Onsite Exhaust - El Dorado CEQA			na	na					0.00
	Local Haul Routes - EMFAC2002			0.00	0.00					0.00
	Concrete Batch Plant - AP-42			na	na					0.00
	Crushing Fugitives - AP-42			na	na					0.00
	RWD Construction		0.00	0.00	0.00					0.00
	Grading - URBEMIS			0.00			na	na		0.00
	Onsite Exhaust - El Dorado CEQA						na	na		0.00
	Local Haul Routes - EMFAC2002						0.00	0.00		0.00
	Concrete Batch Plant - AP-42						na	na		0.00
	Crushing Fugitives - AP-42						na	na		0.00
	LWD Construction			0.00			0.00	0.00		0.00
	Grading - URBEMIS	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.00
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	na	na	na						0.00
	Bridge Spoils Excavation	0.00	0.00	0.00						0.00
	Grading - URBEMIS		na	na	na					0.00
	Onsite Exhaust - El Dorado CEQA		na	na	na					0.00
	Local Haul Routes - EMFAC2002		na	na	na					0.00
	Concrete Batch Plant - AP-42		na	na	na					0.00
	Crushing Fugitives - AP-42		na	na	na					0.00
	Beals Pt. Borrow Dev.		0.00	0.00	0.00					0.00
	Grading - URBEMIS		0.00							0.00
	Onsite Exhaust - El Dorado CEQA		na							0.00
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 5 Materials		0.00							0.00
	Grading - URBEMIS		0.00							0.00
	Onsite Exhaust - El Dorado CEQA		na							0.00
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 6 Materials		0.00							0.00
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Mooney Ridge Const.							0.00	0.00	0.00
	Grading - URBEMIS		0.00	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Excavate & Repl. Foundation		0.00	0.00						0.00
	Grading - URBEMIS				na	na				0.00
	Onsite Exhaust - El Dorado CEQA				na	na				0.00
	Local Haul Routes - EMFAC2002				0.00	0.00				0.00
	Concrete Batch Plant - AP-42				na	na				0.00
	Crushing Fugitives - AP-42				na	na				0.00
	MIAD Shell & Raise				0.00	0.00				0.00
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Jet Grouting		0.00	0.00						0.00
	Grading - URBEMIS		0.00				na			0.00
	Onsite Exhaust - El Dorado CEQA						na			0.00
	Local Haul Routes - EMFAC2002						0.00			0.00
	Concrete Batch Plant - AP-42						na			0.00
	Crushing Fugitives - AP-42						na			0.00
	Dike 7& 8 Const.		0.00				0.00			0.00
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							na	na	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Granite Bay Borrow Dev.							0.00	0.00	0.00
	Grading - URBEMIS							0.00	0.00	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Dikes 1, 2, 3 & 4 Const.							0.00	0.00	0.00
	Grading - URBEMIS					0.00		na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Offsite Haul Routes (Marysville & Prairie City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Alternative #3 IFA Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**

Summary of SO_2 Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.00
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	na	na	na						0.00
	Auxiliary Spillway Borrow Development Period	0.00	0.00	0.00						0.00
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.00
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			na	na	na				0.00
	Crushing Fugitives - AP-42			na	na	na				0.00
	Auxiliary Spillway			0.00	0.00	0.00				0.00
	Grading - URBEMIS			na	na	na				0.00
	Onsite Exhaust - El Dorado CEQA			na	na	na				0.00
	Local Haul Routes - EMFAC2002			na	na	na				0.00
	Concrete Batch Plant - AP-42			na	na	na				0.00
	Crushing Fugitives - AP-42			na	na	na				0.00
	Tunnel Construction			0.00	0.00	0.00				0.00
	Grading - URBEMIS		0.00	na	na					0.00
	Onsite Exhaust - El Dorado CEQA			na	na					0.00
	Local Haul Routes - EMFAC2002			0.00	0.00					0.00
	Concrete Batch Plant - AP-42			na	na					0.00
	Crushing Fugitives - AP-42			na	na					0.00
	RWD Construction		0.00	0.00	0.00					0.00
	Grading - URBEMIS			0.00			na	na		0.00
	Onsite Exhaust - El Dorado CEQA						na	na		0.00
	Local Haul Routes - EMFAC2002						0.00	0.00		0.00
	Concrete Batch Plant - AP-42						na	na		0.00
	Crushing Fugitives - AP-42						na	na		0.00
	LWD Construction			0.00			0.00	0.00		0.00
	Grading - URBEMIS	na	na	na						0.00
	Onsite Exhaust - El Dorado CEQA	na	na	na						0.00
	Local Haul Routes - EMFAC2002	na	na	na						0.00
	Concrete Batch Plant - AP-42	na	na	na						0.00
	Crushing Fugitives - AP-42	na	na	na						0.00
	Bridge Spoils Excavation	0.00	0.00	0.00						0.00
	Grading - URBEMIS		na	na	na					0.00
	Onsite Exhaust - El Dorado CEQA		na	na	na					0.00
	Local Haul Routes - EMFAC2002		na	na	na					0.00
	Concrete Batch Plant - AP-42		na	na	na					0.00
	Crushing Fugitives - AP-42		na	na	na					0.00
	Beals Pt. Borrow Dev.		0.00	0.00	0.00					0.00
	Grading - URBEMIS		0.00							0.00
	Onsite Exhaust - El Dorado CEQA		na							0.00
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 5 Materials		0.00							0.00
	Grading - URBEMIS		0.00							0.00
	Onsite Exhaust - El Dorado CEQA		na							0.00
	Local Haul Routes - EMFAC2002		0.00							0.00
	Concrete Batch Plant - AP-42		na							0.00
	Crushing Fugitives - AP-42		na							0.00
	Dike 6 Materials		0.00							0.00
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Mooney Ridge Const.							0.00	0.00	0.00
	Grading - URBEMIS		0.00	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Excavate & Repl. Foundation		0.00	0.00						0.00
	Grading - URBEMIS				na	na				0.00
	Onsite Exhaust - El Dorado CEQA				na	na				0.00
	Local Haul Routes - EMFAC2002				0.00	0.00				0.00
	Concrete Batch Plant - AP-42				na	na				0.00
	Crushing Fugitives - AP-42				na	na				0.00
	MIAD Shell & Raise				0.00	0.00				0.00
	Grading - URBEMIS		na	na						0.00
	Onsite Exhaust - El Dorado CEQA		na	na						0.00
	Local Haul Routes - EMFAC2002		na	na						0.00
	Concrete Batch Plant - AP-42		na	na						0.00
	Crushing Fugitives - AP-42		na	na						0.00
	MIAD Jet Grouting		0.00	0.00						0.00
	Grading - URBEMIS		0.00				na			0.00
	Onsite Exhaust - El Dorado CEQA						na			0.00
	Local Haul Routes - EMFAC2002						0.00			0.00
	Concrete Batch Plant - AP-42						na			0.00
	Crushing Fugitives - AP-42						na			0.00
	Dike 7& 8 Const.		0.00				0.00			0.00
	Grading - URBEMIS							na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							na	na	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Granite Bay Borrow Dev.							0.00	0.00	0.00
	Grading - URBEMIS							0.00	0.00	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Dikes 1, 2, 3 & 4 Const.							0.00	0.00	0.00
	Grading - URBEMIS					0.00		na	na	0.00
	Onsite Exhaust - El Dorado CEQA							na	na	0.00
	Local Haul Routes - EMFAC2002							0.00	0.00	0.00
	Concrete Batch Plant - AP-42							na	na	0.00
	Crushing Fugitives - AP-42							na	na	0.00
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Offsite Haul Routes (Marysville & Prairie City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Alternative #2 SOD Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Summary of SO_2 Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	0.00	0.00	0.00						0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.00	0.00	0.00				0.00
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.00	0.00	0.00				0.00
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	0.00	0.00					0.00
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*	*na*		*0.00*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.00	0.00		0.00
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*na*	*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	0.00	0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*	*na*					*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.00	0.00	0.00					0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.00							0.00
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*							*0.00*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.00							0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.00	0.00	0.00
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		0.00	0.00						0.00
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*na*	*na*				*0.00*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				0.00	0.00				0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*na*	*na*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.00	0.00						0.00
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*na*			*0.00*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.00			0.00
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev							0.00	0.00	0.00
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.00	0.00	0.00
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*na*	*na*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Offsite Haul Routes (Marysville & Prairie City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Alternative #1 Total	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	0.00	**0.00**

Summary of NOx Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*7.24*	*7.31*	*7.41*						*7.41*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	7.24	7.31	7.41						7.41
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*3.91*	*3.84*	*3.84*				*3.91*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			3.91	3.84	3.84				3.91
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.72*	*5.68*	*5.68*				*5.72*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			5.72	5.68	5.68				5.72
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*9.41*	*9.30*					*9.41*
	Local Haul Routes - EMFAC2002			*0.01*	*0.01*					*0.01*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.08	9.42	9.31					9.42
	Grading - URBEMIS			*0.07*			*na*	*na*		*0.07*
	Onsite Exhaust - El Dorado CEQA						*5.08*	*5.08*		*5.08*
	Local Haul Routes - EMFAC2002						*0.29*	*0.29*		*0.29*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.07			5.37	5.37		5.37
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*6.20*	*6.23*	*6.28*						*6.28*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	6.20	6.23	6.28						6.28
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*3.47*	*3.51*	*3.50*					*3.51*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		3.47	3.51	3.50					3.51
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.04*							*0.04*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.81							3.81
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.02*							*0.02*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		3.79							3.79
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.26*	*3.26*	*3.26*
	Local Haul Routes - EMFAC2002							*0.02*	*0.02*	*0.02*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							3.28	3.28	3.28
	Grading - URBEMIS		*0.08*	*na*						*0.08*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.08	0.00						0.08
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*9.91*	*9.82*						*9.91*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		9.91	9.82						9.91
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*14.96*	*14.96*				*14.96*
	Local Haul Routes - EMFAC2002				*0.05*	*0.05*				*0.05*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				15.01	15.01				15.01
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*4.73*	*4.73*						*4.73*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		4.73	4.73						4.73
	Grading - URBEMIS		*0.14*				*na*			*0.14*
	Onsite Exhaust - El Dorado CEQA						*3.49*			*3.49*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.14				3.49			3.49
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*2.56*	*2.56*	*2.56*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							2.56	2.56	2.56
	Grading - URBEMIS							*0.28*	*0.00*	*0.28*
	Onsite Exhaust - El Dorado CEQA							*4.84*	*4.84*	*4.84*
	Local Haul Routes - EMFAC2002							*0.14*	*0.14*	*0.14*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							5.26	4.98	5.26
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.02*	*0.02*	*0.02*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.02	0.02	0.02
	Internal Haul Routes	0.19	1.34	1.54	1.48	0.35	2.40	2.59	2.01	2.59
	Offsite Haul Routes (Marysville & Praine City)	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
	Alternative #5 Total	**15.26**	**42.52**	**54.04**	**40.44**	**26.50**	**12.90**	**20.73**	**14.49**	**54.04**

Summary of NOx Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*7.24*	*7.31*	*7.41*						*7.41*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	7.24	7.31	7.41						7.41
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*3.91*	*3.84*	*3.84*				*3.91*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			3.91	3.84	3.84				3.91
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.72*	*5.68*	*5.68*				*5.72*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			5.72	5.68	5.68				5.72
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*9.41*	*9.30*					*9.41*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.08	9.41	9.30					9.41
	Grading - URBEMIS			*0.07*			*na*	*na*		*0.07*
	Onsite Exhaust - El Dorado CEQA						*5.08*	*5.08*		*5.08*
	Local Haul Routes - EMFAC2002						*0.02*	*0.02*		*0.02*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.07			5.10	5.10		5.10
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*6.20*	*6.23*	*6.28*						*6.28*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	6.20	6.23	6.28						6.28
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*3.47*	*3.51*	*3.50*					*3.51*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		3.47	3.51	3.50					3.51
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.06*							*0.06*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.83							3.83
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.45*							*0.45*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		4.22							4.22
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.26*	*3.26*	*3.26*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							3.27	3.27	3.27
	Grading - URBEMIS		*0.08*	*na*						*0.08*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.08	0.00						0.08
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*9.91*	*9.82*						*9.91*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		9.91	9.82						9.91
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*14.96*	*14.96*				*14.96*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				14.97	14.97				14.97
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*4.73*	*4.73*						*4.73*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		*4.73*	*4.73*						*4.73*
	Grading - URBEMIS		*0.14*				*na*			*0.14*
	Onsite Exhaust - El Dorado CEQA						*3.49*			*3.49*
	Local Haul Routes - EMFAC2002						*0.08*			*0.08*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.14				3.57			3.57
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*2.56*	*2.56*	*2.56*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							2.56	2.56	2.56
	Grading - URBEMIS							*0.28*	*0.00*	*0.28*
	Onsite Exhaust - El Dorado CEQA							*4.84*	*4.84*	*4.84*
	Local Haul Routes - EMFAC2002							*0.10*	*0.10*	*0.10*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							5.22	4.94	5.22
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.19	1.18	1.32	1.33	0.34	2.17	3.34	2.70	3.34
	Offsite Haul Routes (Marysville & Prairie City)	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
	Alternative #4 Total	**14.77**	**42.33**	**53.32**	**39.76**	**25.98**	**12.00**	**20.64**	**14.62**	**53.32**

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Summary of NOx Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*7.24*	*7.31*	*7.41*						*7.41*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	7.24	7.31	7.41						7.41
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*3.91*	*3.84*	*3.84*				*3.91*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			3.91	3.84	3.84				3.91
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.72*	*5.68*	*5.68*				*5.72*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			5.72	5.68	5.68				5.72
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*9.41*	*9.30*					*9.41*
	Local Haul Routes - EMFAC2002			*0.02*	*0.02*					*0.02*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		*0.08*	9.43	9.32					9.43
	Grading - URBEMIS			*0.07*			*na*	*na*		*0.07*
	Onsite Exhaust - El Dorado CEQA						*5.08*	*5.08*		*5.08*
	Local Haul Routes - EMFAC2002						*0.01*	*0.01*		*0.01*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			*0.07*			5.09	5.09		5.09
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*6.20*	*6.23*	*6.28*						*6.28*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	6.20	6.23	6.28						6.28
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*3.47*	*3.51*	*3.50*					*3.51*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		3.47	3.51	3.50					3.51
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.78							3.78
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.04*							*0.04*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		3.81							3.81
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.26*	*3.26*	*3.26*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							3.26	3.26	3.26
	Grading - URBEMIS		*0.08*	*na*						*0.08*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		*0.08*	*0.00*						*0.08*
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*9.91*	*9.82*						*9.91*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		9.91	9.82						9.91
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*14.96*	*14.96*				*14.96*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				14.97	14.97				14.97
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*4.73*	*4.73*						*4.73*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		*4.73*	*4.73*						*4.73*
	Grading - URBEMIS		*0.14*				*na*			*0.14*
	Onsite Exhaust - El Dorado CEQA						*3.49*			*3.49*
	Local Haul Routes - EMFAC2002						*0.04*			*0.04*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		*0.14*				3.53			3.53
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*2.56*	*2.56*	*2.56*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							2.56	2.56	2.56
	Grading - URBEMIS							*0.28*	*0.00*	*0.28*
	Onsite Exhaust - El Dorado CEQA							*4.84*	*4.84*	*4.84*
	Local Haul Routes - EMFAC2002							*0.21*	*0.21*	*0.21*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const							5.33	5.05	5.33
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					*0.00*		*0.01*	*0.01*	*0.01*
	Internal Haul Routes	*0.19*	*1.20*	*1.08*	*1.06*	*0.30*	*1.93*	*1.91*	*1.51*	*1.93*
	Offsite Haul Routes (Marysville & Prairie City)	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
	Alternative #3 IFA Total	**14.79**	**41.90**	**53.11**	**39.53**	**25.95**	**11.72**	**19.33**	**13.56**	**53.11**

Summary of NOx Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*7.24*	*7.31*	*7.41*						*7.41*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	7.24	7.31	7.41						7.41
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*3.91*	*3.84*	*3.84*				*3.91*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			3.91	3.84	3.84				3.91
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.72*	*5.68*	*5.68*				*5.72*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			5.72	5.68	5.68				5.72
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*9.41*	*9.30*					*9.41*
	Local Haul Routes - EMFAC2002			*0.02*	*0.02*					*0.02*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.08	9.44	9.33					9.44
	Grading - URBEMIS			*0.07*			*na*	*na*		*0.07*
	Onsite Exhaust - El Dorado CEQA						*5.08*	*5.08*		*5.08*
	Local Haul Routes - EMFAC2002						*0.01*	*0.01*		*0.01*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.07			5.09	5.09		5.09
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*6.20*	*6.23*	*6.28*						*6.28*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	6.20	6.23	6.28						6.28
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*3.47*	*3.51*	*3.50*					*3.51*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		3.47	3.51	3.50					3.51
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.02*							*0.02*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.80							3.80
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.02*							*0.02*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		3.79							3.79
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.26*	*3.26*	*3.26*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							3.27	3.27	3.27
	Grading - URBEMIS		*0.08*	*na*						*0.08*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.08	0.00						0.08
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*9.91*	*9.82*						*9.91*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		9.91	9.82						9.91
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*14.96*	*14.96*				*14.96*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				14.97	14.97				14.97
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*4.73*	*4.73*						*4.73*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		4.73	4.73						4.73
	Grading - URBEMIS		*0.14*				*na*			*0.14*
	Onsite Exhaust - El Dorado CEQA						*3.49*			*3.49*
	Local Haul Routes - EMFAC2002						*0.10*			*0.10*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.14				3.60			3.60
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*2.56*	*2.56*	*2.56*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							2.56	2.56	2.56
	Grading - URBEMIS							*0.28*	*0.00*	*0.28*
	Onsite Exhaust - El Dorado CEQA							*4.84*	*4.84*	*4.84*
	Local Haul Routes - EMFAC2002							*0.16*	*0.16*	*0.16*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							5.27	4.99	5.27
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.01	0.01	0.01
	Internal Haul Routes	0.19	0.97	0.95	0.70	0.29	0.95	1.16	0.89	1.16
	Offsite Haul Routes (Marysville & Prairie City)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
	Alternative #2 SOD Total	**13.85**	**40.73**	**52.05**	**38.23**	**24.99**	**9.86**	**17.59**	**11.95**	**52.05**

Summary of NOx Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*7.24*	*7.31*	*7.41*						*7.41*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	7.24	7.31	7.41						7.41
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*3.91*	*3.84*	*3.84*				*3.91*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			3.91	3.84	3.84				3.91
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.72*	*5.68*	*5.68*				*5.72*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			5.72	5.68	5.68				5.72
	Grading - URBEMIS		*0.08*	*na*	*na*					*0.08*
	Onsite Exhaust - El Dorado CEQA			*9.41*	*9.30*					*9.41*
	Local Haul Routes - EMFAC2002			*0.04*	*0.04*					*0.04*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.08	9.45	9.34					9.45
	Grading - URBEMIS			*0.07*			*na*	*na*		*0.07*
	Onsite Exhaust - El Dorado CEQA						*5.08*	*5.08*		*5.08*
	Local Haul Routes - EMFAC2002						*0.01*	*0.01*		*0.01*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.07			5.09	5.09		5.09
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*6.20*	*6.23*	*6.28*						*6.28*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	6.20	6.23	6.28						6.28
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*3.47*	*3.51*	*3.50*					*3.51*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		3.47	3.51	3.50					3.51
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.02*							*0.02*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		3.79							3.79
	Grading - URBEMIS		*0.07*							*0.07*
	Onsite Exhaust - El Dorado CEQA		*3.71*							*3.71*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		3.79							3.79
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.26*	*3.26*	*3.26*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							3.26	3.26	3.26
	Grading - URBEMIS		*0.08*	*na*						*0.08*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.08	0.00						0.08
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*9.91*	*9.82*						*9.91*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		9.91	9.82						9.91
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*14.96*	*14.96*				*14.96*
	Local Haul Routes - EMFAC2002				*0.03*	*0.03*				*0.03*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				14.99	14.99				14.99
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*4.73*	*4.73*						*4.73*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		4.73	4.73						4.73
	Grading - URBEMIS		*0.14*				*na*			*0.14*
	Onsite Exhaust - El Dorado CEQA						*3.49*			*3.49*
	Local Haul Routes - EMFAC2002						*0.01*			*0.01*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.14				3.51			3.51
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*2.56*	*2.56*	*2.56*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							2.56	2.56	2.56
	Grading - URBEMIS							*0.28*	*0.00*	*0.28*
	Onsite Exhaust - El Dorado CEQA							*4.84*	*4.84*	*4.84*
	Local Haul Routes - EMFAC2002							*0.03*	*0.03*	*0.03*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							5.15	4.87	5.15
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.02*	*0.02*	*0.02*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.02	0.02	0.02
	Internal Haul Routes	0.19	1.12	0.73	0.61	0.22	1.30	1.32	1.03	1.32
	Offsite Haul Routes (Marysville & Prairie City)	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
	Alternative #1 Total	**13.89**	**40.91**	**51.89**	**38.22**	**24.99**	**10.17**	**17.66**	**12.01**	**51.89**

Summary of CO Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*10.54*	*10.62*	*10.74*						*10.74*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	10.54	10.62	10.74						10.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.41*	*5.46*	*5.46*				*5.46*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			5.41	5.46	5.46				5.46
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*8.20*	*8.21*	*8.21*				*8.21*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			8.20	8.21	8.21				8.21
	Grading - URBEMIS		*0.02*	*na*	*na*					*0.02*
	Onsite Exhaust - El Dorado CEQA			*13.31*	*13.39*					*13.39*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.02	13.31	13.39					13.39
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*7.39*	*7.39*		*7.39*
	Local Haul Routes - EMFAC2002						*0.07*	*0.07*		*0.07*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.02			7.46	7.46		7.46
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*9.04*	*9.08*	*9.15*						*9.15*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	9.04	9.08	9.15						9.15
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*5.06*	*5.10*	*5.09*					*5.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		5.06	5.10	5.09					5.10
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		5.15							5.15
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		5.14							5.14
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*4.74*	*4.74*	*4.74*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							4.75	4.75	4.75
	Grading - URBEMIS		*0.02*	*na*						*0.02*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.02	0.00						0.02
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*13.94*	*14.01*						*14.01*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		13.94	14.01						14.01
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*21.56*	*21.56*				*21.56*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				21.57	21.57				21.57
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*6.94*	*6.94*						*6.94*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		6.94	6.94						6.94
	Grading - URBEMIS		*0.04*				*na*			*0.04*
	Onsite Exhaust - El Dorado CEQA						*5.02*			*5.02*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.04				5.02			5.02
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.74*	*3.74*	*3.74*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							3.74	3.74	3.74
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*6.93*	*6.93*	*6.93*
	Local Haul Routes - EMFAC2002							*0.03*	*0.03*	*0.03*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							6.96	6.96	6.96
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.01	0.01	0.01
	Internal Haul Routes	0.07	0.48	0.55	0.53	0.13	0.86	0.93	0.72	0.93
	Offsite Haul Routes (Marysville & Prairie City)	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
	Alternative #5 Total	**20.02**	**56.85**	**73.79**	**54.63**	**35.74**	**13.70**	**24.21**	**16.54**	**73.79**

Summary of CO Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#4 - 9.5-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*10.54*	*10.62*	*10.74*						*10.74*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	10.54	10.62	10.74						10.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.41*	*5.46*	*5.46*				*5.46*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			5.41	5.46	5.46				5.46
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*8.20*	*8.21*	*8.21*				*8.21*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			8.20	8.21	8.21				8.21
	Grading - URBEMIS		*0.02*	*na*	*na*					*0.02*
	Onsite Exhaust - El Dorado CEQA			*13.31*	*13.39*					*13.39*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.02	13.31	13.39					13.39
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*7.39*	*7.39*		*7.39*
	Local Haul Routes - EMFAC2002						*0.01*	*0.01*		*0.01*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.02			7.40	7.40		7.40
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*9.04*	*9.08*	*9.15*						*9.15*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	9.04	9.08	9.15						9.15
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*5.06*	*5.10*	*5.09*					*5.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		5.06	5.10	5.09					5.10
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		5.15							5.15
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.10*							*0.10*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		5.24							5.24
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*4.74*	*4.74*	*4.74*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							4.75	4.75	4.75
	Grading - URBEMIS		*0.02*	*na*						*0.02*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.02	0.00						0.02
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*13.94*	*14.01*						*14.01*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		13.94	14.01						14.01
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*21.56*	*21.56*				*21.56*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				21.57	21.57				21.57
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*6.94*	*6.94*						*6.94*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		6.94	6.94						6.94
	Grading - URBEMIS		*0.04*				*na*			*0.04*
	Onsite Exhaust - El Dorado CEQA						*5.02*			*5.02*
	Local Haul Routes - EMFAC2002						*0.02*			*0.02*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.04				5.04			5.04
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.74*	*3.74*	*3.74*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							3.74	3.74	3.74
	Grading - URBEMIS							*0.08*	*0.00*	*0.08*
	Onsite Exhaust - El Dorado CEQA							*6.93*	*6.93*	*6.93*
	Local Haul Routes - EMFAC2002							*0.02*	*0.02*	*0.02*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							7.03	6.95	7.03
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.07	0.42	0.47	0.48	0.12	0.78	1.19	0.97	1.19
	Offsite Haul Routes (Marysville & Praine City)	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
	Alternative #4 Total	**19.91**	**56.79**	**73.60**	**54.46**	**35.62**	**13.47**	**24.37**	**16.66**	**73.60**

Summary of CO Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#3 IFA - 7-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*10.54*	*10.62*	*10.74*						*10.74*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	10.54	10.62	10.74						10.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.41*	*5.46*	*5.46*				*5.46*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			5.41	5.46	5.46				5.46
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*8.20*	*8.21*	*8.21*				*8.21*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			8.20	8.21	8.21				8.21
	Grading - URBEMIS		*0.02*	*na*	*na*					*0.02*
	Onsite Exhaust - El Dorado CEQA			*13.31*	*13.39*					*13.39*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.02	13.31	13.40					13.40
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*7.39*	*7.39*		*7.39*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.02			7.40	7.40		7.40
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*9.04*	*9.08*	*9.15*						*9.15*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	9.04	9.08	9.15						9.15
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*5.06*	*5.10*	*5.09*					*5.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		5.06	5.10	5.09					5.10
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		5.14							5.14
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.01*							*0.01*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		5.15							5.15
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*4.74*	*4.74*	*4.74*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							4.74	4.74	4.74
	Grading - URBEMIS		*0.02*	*na*						*0.02*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.02	0.00						0.02
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*13.94*	*14.01*						*14.01*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		13.94	14.01						14.01
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*21.56*	*21.56*				*21.56*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				21.57	21.57				21.57
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*6.94*	*6.94*						*6.94*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		6.94	6.94						6.94
	Grading - URBEMIS		*0.04*				*na*			*0.04*
	Onsite Exhaust - El Dorado CEQA						*5.02*			*5.02*
	Local Haul Routes - EMFAC2002						*0.01*			*0.01*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.04				5.03			5.03
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.74*	*3.74*	*3.74*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							3.74	3.74	3.74
	Grading - URBEMIS							*0.08*	*0.00*	*0.08*
	Onsite Exhaust - El Dorado CEQA							*6.93*	*6.93*	*6.93*
	Local Haul Routes - EMFAC2002							*0.05*	*0.05*	*0.05*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const							7.06	6.98	7.06
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.07	0.43	0.39	0.38	0.11	0.69	0.68	0.54	0.69
	Offsite Haul Routes (Marysville & Prairie City)	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
	Alternative #3 IFA Total	**19.91**	**56.70**	**73.52**	**54.37**	**35.61**	**13.38**	**23.89**	**16.27**	**73.52**

Summary of CO Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#2 SOD - Mini Raise (4 feet) (0.5' Earthen, 3.5' concrete parapet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*10.54*	*10.62*	*10.74*						*10.74*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	10.54	10.62	10.74						10.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.41*	*5.46*	*5.46*				*5.46*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			5.41	5.46	5.46				5.46
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*8.20*	*8.21*	*8.21*				*8.21*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			8.20	8.21	8.21				8.21
	Grading - URBEMIS		*0.02*	*na*	*na*					*0.02*
	Onsite Exhaust - El Dorado CEQA			*13.31*	*13.39*					*13.39*
	Local Haul Routes - EMFAC2002			*0.01*	*0.01*					*0.01*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.02	13.32	13.40					13.40
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*7.39*	*7.39*		*7.39*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.02			7.39	7.39		7.39
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*9.04*	*9.08*	*9.15*						*9.15*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	9.04	9.08	9.15						9.15
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*5.06*	*5.10*	*5.09*					*5.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		5.06	5.10	5.09					5.10
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		5.15							5.15
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		5.14							5.14
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*4.74*	*4.74*	*4.74*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							4.75	4.75	4.75
	Grading - URBEMIS		*0.02*	*na*						*0.02*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.02	0.00						0.02
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*13.94*	*14.01*						*14.01*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		13.94	14.01						14.01
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*21.56*	*21.56*				*21.56*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				21.57	21.57				21.57
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*6.94*	*6.94*						*6.94*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		6.94	6.94						6.94
	Grading - URBEMIS		*0.04*				*na*			*0.04*
	Onsite Exhaust - El Dorado CEQA						*5.02*			*5.02*
	Local Haul Routes - EMFAC2002						*0.02*			*0.02*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.04				5.04			5.04
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.74*	*3.74*	*3.74*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							3.74	3.74	3.74
	Grading - URBEMIS							*0.08*	*0.00*	*0.08*
	Onsite Exhaust - El Dorado CEQA							*6.93*	*6.93*	*6.93*
	Local Haul Routes - EMFAC2002							*0.03*	*0.03*	*0.03*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const							7.05	6.97	7.05
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.07	0.35	0.34	0.25	0.10	0.34	0.41	0.32	0.41
	Offsite Haul Routes (Marysville & Prairie City)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Alternative #2 SOD Total	**19.70**	**56.40**	**73.26**	**54.03**	**35.39**	**12.83**	**23.40**	**15.82**	**73.26**

Summary of CO Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#1 - Mini Raise (0-4 feet)	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*10.54*	*10.62*	*10.74*						*10.74*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	10.54	10.62	10.74						10.74
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*5.41*	*5.46*	*5.46*				*5.46*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			5.41	5.46	5.46				5.46
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*8.20*	*8.21*	*8.21*				*8.21*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			8.20	8.21	8.21				8.21
	Grading - URBEMIS		*0.02*	*na*	*na*					*0.02*
	Onsite Exhaust - El Dorado CEQA			*13.31*	*13.39*					*13.39*
	Local Haul Routes - EMFAC2002			*0.01*	*0.01*					*0.01*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.02	13.32	13.40					13.40
	Grading - URBEMIS			*0.02*			*na*	*na*		*0.02*
	Onsite Exhaust - El Dorado CEQA						*7.39*	*7.39*		*7.39*
	Local Haul Routes - EMFAC2002						*0.00*	*0.00*		*0.00*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.02			7.40	7.40		7.40
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*9.04*	*9.08*	*9.15*						*9.15*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	9.04	9.08	9.15						9.15
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*5.06*	*5.10*	*5.09*					*5.10*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		5.06	5.10	5.09					5.10
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		5.14							5.14
	Grading - URBEMIS		*0.02*							*0.02*
	Onsite Exhaust - El Dorado CEQA		*5.12*							*5.12*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		5.14							5.14
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*4.74*	*4.74*	*4.74*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							4.74	4.74	4.74
	Grading - URBEMIS		*0.02*	*na*						*0.02*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.02	0.00						0.02
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*13.94*	*14.01*						*14.01*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		13.94	14.01						14.01
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*21.56*	*21.56*				*21.56*
	Local Haul Routes - EMFAC2002				*0.01*	*0.01*				*0.01*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				21.57	21.57				21.57
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*6.94*	*6.94*						*6.94*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		6.94	6.94						6.94
	Grading - URBEMIS		*0.04*				*na*			*0.04*
	Onsite Exhaust - El Dorado CEQA						*5.02*			*5.02*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.04				5.02			5.02
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*3.74*	*3.74*	*3.74*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							3.74	3.74	3.74
	Grading - URBEMIS							*0.08*	*0.00*	*0.08*
	Onsite Exhaust - El Dorado CEQA							*6.93*	*6.93*	*6.93*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							7.02	6.94	7.02
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.07	0.40	0.26	0.22	0.08	0.47	0.47	0.37	0.47
	Offsite Haul Routes (Marysville & Prairie City)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Alternative #1 Total	**19.71**	**56.46**	**73.20**	**54.01**	**35.38**	**12.94**	**23.43**	**15.86**	**73.20**

Summary of ROG Emissions (tons/year)

Alternative	Project Feature	Year 2007	2008	2009	2010	2011	2012	2013	2014	Peak
#5 - 17-ft Raise	*Grading - URBEMIS*	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.24*	*1.25*	*1.26*						*1.26*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Auxiliary Spillway Borrow Development Period	1.24	1.25	1.26						1.26
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.65*	*0.65*	*0.65*				*0.65*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Auxiliary Spillway			0.65	0.65	0.65				0.65
	Grading - URBEMIS			*na*	*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA			*0.97*	*0.97*	*0.97*				*0.97*
	Local Haul Routes - EMFAC2002			*na*	*na*	*na*				*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*	*na*				*0.00*
	Crushing Fugitives - AP-42			*na*	*na*	*na*				*0.00*
	Tunnel Construction			0.97	0.97	0.97				0.97
	Grading - URBEMIS		*0.00*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA			*1.58*	*1.58*					*1.58*
	Local Haul Routes - EMFAC2002			*0.00*	*0.00*					*0.00*
	Concrete Batch Plant - AP-42			*na*	*na*					*0.00*
	Crushing Fugitives - AP-42			*na*	*na*					*0.00*
	RWD Construction		0.00	1.58	1.58					1.58
	Grading - URBEMIS			*0.00*			*na*	*na*		*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.87*	*0.87*		*0.87*
	Local Haul Routes - EMFAC2002						*0.02*	*0.02*		*0.02*
	Concrete Batch Plant - AP-42						*na*	*na*		*0.00*
	Crushing Fugitives - AP-42						*na*	*na*		*0.00*
	LWD Construction			0.00			0.89	0.89		0.89
	Grading - URBEMIS	*na*	*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA	*1.06*	*1.07*	*1.07*						*1.07*
	Local Haul Routes - EMFAC2002	*na*	*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42	*na*	*na*	*na*						*0.00*
	Crushing Fugitives - AP-42	*na*	*na*	*na*						*0.00*
	Bridge Spoils Excavation	1.06	1.07	1.07						1.07
	Grading - URBEMIS		*na*	*na*	*na*					*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.59*	*0.60*	*0.60*					*0.60*
	Local Haul Routes - EMFAC2002		*na*	*na*	*na*					*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*	*na*					*0.00*
	Crushing Fugitives - AP-42		*na*	*na*	*na*					*0.00*
	Beals Pt. Borrow Dev.		0.59	0.60	0.60					0.60
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 5 Materials		0.62							0.62
	Grading - URBEMIS		*0.00*							*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.61*							*0.61*
	Local Haul Routes - EMFAC2002		*0.00*							*0.00*
	Concrete Batch Plant - AP-42		*na*							*0.00*
	Crushing Fugitives - AP-42		*na*							*0.00*
	Dike 6 Materials		0.62							0.62
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.56*	*0.56*	*0.56*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Mooney Ridge Const.							0.56	0.56	0.56
	Grading - URBEMIS		*0.00*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.00*	*0.00*						*0.00*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Borrow Dev.		0.00	0.00						0.00
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*1.66*	*1.66*						*1.66*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Excavate & Repl. Foundation		1.66	1.66						1.66
	Grading - URBEMIS				*na*	*na*				*0.00*
	Onsite Exhaust - El Dorado CEQA				*2.55*	*2.55*				*2.55*
	Local Haul Routes - EMFAC2002				*0.00*	*0.00*				*0.00*
	Concrete Batch Plant - AP-42				*na*	*na*				*0.00*
	Crushing Fugitives - AP-42				*na*	*na*				*0.00*
	MIAD Shell & Raise				2.55	2.55				2.55
	Grading - URBEMIS		*na*	*na*						*0.00*
	Onsite Exhaust - El Dorado CEQA		*0.82*	*0.82*						*0.82*
	Local Haul Routes - EMFAC2002		*na*	*na*						*0.00*
	Concrete Batch Plant - AP-42		*na*	*na*						*0.00*
	Crushing Fugitives - AP-42		*na*	*na*						*0.00*
	MIAD Jet Grouting		0.82	0.82						0.82
	Grading - URBEMIS		*0.00*				*na*			*0.00*
	Onsite Exhaust - El Dorado CEQA						*0.59*			*0.59*
	Local Haul Routes - EMFAC2002						*0.00*			*0.00*
	Concrete Batch Plant - AP-42						*na*			*0.00*
	Crushing Fugitives - AP-42						*na*			*0.00*
	Dike 7& 8 Const.		0.00				0.59			0.59
	Grading - URBEMIS							*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.44*	*0.44*	*0.44*
	Local Haul Routes - EMFAC2002							*na*	*na*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Granite Bay Borrow Dev.							0.44	0.44	0.44
	Grading - URBEMIS							*0.00*	*0.00*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.82*	*0.82*	*0.82*
	Local Haul Routes - EMFAC2002							*0.01*	*0.01*	*0.01*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Dikes 1, 2, 3 & 4 Const.							0.83	0.83	0.83
	Grading - URBEMIS					*0.00*		*na*	*na*	*0.00*
	Onsite Exhaust - El Dorado CEQA							*0.00*	*0.00*	*0.00*
	Local Haul Routes - EMFAC2002							*0.00*	*0.00*	*0.00*
	Concrete Batch Plant - AP-42							*na*	*na*	*0.00*
	Crushing Fugitives - AP-42							*na*	*na*	*0.00*
	Main Concrete Dam Tendon & Shears					0.00		0.00	0.00	0.00
	Internal Haul Routes	0.01	0.11	0.12	0.12	0.03	0.19	0.21	0.16	0.21
	Offsite Haul Routes (Marysville & Prairie City)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	Alternative #5 Total	**2.41**	**6.82**	**8.84**	**6.57**	**4.29**	**1.78**	**3.03**	**2.09**	**8.84**

requiring low temperature storage. Samples and sample extracts are held for specified length of time after issuance of a final report. The client is then contacted for written authorization before disposal. Samples will be archived upon client request. The Handbook prescribes the required forms, routing and filing of all storage information, as well as its use in sample history and documentation.

3.12 Waste Disposal

Disposal of chemical wastes generated in the laboratory is in accordance with all appropriate regulations. The Handbook details the specific reporting requirements necessary to fulfill regulatory obligations and to ensure documentation of safe disposal.

4. INSTRUMENTATION: MAINTENANCE AND CALIBRATION

Since instrumental methods of analysis require properly maintained and calibrated equipment, the operation and maintenance of modern analytical instrumentation is of primary importance in the production of acceptable data. In order to provide this data, ERT subscribes to the following programs:

- maintenance agreements/service contracts with instrument manufacturers
- laboratory preventative maintenance program
- laboratory equipment calibration program

Minimum requirement for each program are set in the Handbook.

4.1 Maintenance

Individual instrument logbooks are maintained for each piece of equipment which include pertinent instructions concerning both maintenance and calibration. Information contained in the logbook would include:

- Inventory information
  equipment name, model number, serial number, manufacturer, date of acquisition, original cost
- Service tasks and intervals
  cleaning, calibration, operation based on the manufacturer's recommended schedule and previous laboratory experience
- Service record
  date of breakdown, date of return to service, downtime, problems, repairs, cost of repairs, who performed the repairs, parts required, etc.

- calibration/performance checks
- daily operational notes

Copies of applicable forms, instruction in their use, and filing and updating requirements are detailed in the Handbook.

4.2 Calibration

A separate instrument file is maintained and includes calibration procedures. A calibration procedure for each piece of equipment should contain:

- list of specific equipment or types of equipment for which it is applicable
- general discussion of the scope and theory of calibration technique
- specifications, i.e., calibration points, environmental requirements, accuracy requirements, permissible error limits
- list of calibration standards and accessory equipment
- instructions for recording the calibration data in the logbook
- instructions for corrective actions to be taken if calibration is outside specifications or guidelines

In addition, manufacturer operation and instruction manuals are maintained on file in the laboratories. The Handbook provides details for calibrating each laboratory instrument and contains sample forms and instructions for their use.

5. OPERATIONS

5.1 Glassware

All glassware used in the laboratory is maintained in good condition. Glassware that is chipped, cracked or otherwise defective is either discarded or repaired. Only volumetic glassware with a class "A" certification is used.

5.2 Reagents, Solvents, Gases and Standards

Chemical reagents and solvents of the best quality supplied by reputable chemical suppliers are used in the Laboratory. Materials of ACS or analytical reagent grade rating are considered to be of minimum acceptable purity. Reagents are dated when received and if the manufacturer lists no expiration date then one is assigned based on the nature of the reagent. Solvents are checked for purity before use. Compressed gases are certified as ultra high purity by the supplier. Cylinders are changed when the contents reach a predetermined pressure. Molecular seive filters are placed on gas lines supplying instruments. Analytical standards are purchased at a certified concentration or purity. Documentation is maintained on the preparations and use of standards as prescribed in the Handbook.

5.3 Equipment Performance Checks

Most laboratory equipment undergoes routine performance evaluations. Each piece of equipment has a schedule, an evaluation procedure and performance logbook.

Refrigerators and freezers are checked daily to ensure that they are operating properly and within established temperature ranges. Routine maintenance such as defrosting are performed as needed. All information is recorded in a QA logbook.

The water purification systems are checked daily by measuring conductivity. Samples of the water are also routinely analyzed by GC/MS for organic contamination. Maintenance procedures and schedules are outlined in the systems logbooks.

The Handbook establishes the responsibility for taking daily measurements, samples of forms, instructions for their use, and sets operational criteria and procedures for corrective action.

5.4 Glassware Cleaning

Laboratory glassware is scrupulously cleaned prior to use. Different cleaning procedures exist for different types of analyses. SOP's have been written for each of the different procedures. The Handbook outlines procedures for insuring that proper procedures are used and documented.

5.5 Sample Preservation and Storage

When samples are received unpreserved, ERT personnel will preserve samples according to U.S. EPA recommendations, unless instructed otherwise. This will be done at the time of sample log-in. Sample storage facilities have been designed to isolate grossly contaminated samples from trace environmental samples. Separate refrigerators, freezers and ambient storage areas are maintained. Detailed regulations are provided in the Handbook for determining proper preservative and storage.

5.6 Reagent Inventory

An inventory of reagents will be maintained to assure an adequate supply for most applications. The manufacturers lot number will also be tracked to minimize contamination problems. The Handbook outlines specific requirements for preparing, updating and documenting reagent inventories.

6. SAMPLE ANALYSIS

ERT's quality assurance program is structured to ensure both the integrity and accuracy of reported analytical data. This entails checks at points throughout the sample analysis scheme; these checks include sampling blanks, recovery studies, and verification of compound identity.

6.1 Methods

Analytical methods employed by the laboratory are only those validated and recommended by an oversight organization or developed at ERT. These include U.S. Environmental Protection Agency methods and standard methods (APHA, ASTM, USGS, Calif. ARB, NIOSH). Field samples are collected, shipped and stored in a manner consistent with avoiding contamination or sample degradation, and includes submission of field blanks to verify the lack of contamination after sampling. Samples are stored at reduced temperatures and only within the holding periods established by the U.S. EPA.

Sample preparation is carried out by skilled professionals using accepted procedures for the various sample types and parameters of interest. Sample extracts are stored before analysis at reduced temperatures in a manner consistent with preventing contamination or tampering. The Handbook prescribes procedures for preparation, use and update of SOP's, documentation of analytical methods used, and tracking of sample preparation history.

6.2 Quality Control

To ensure the accuracy of reported results the laboratory employs secondary verification, control blanks, recovery samples and replicate analyses as required by the Handbook and summarized below.

When assigning a specific identify to a chromatrographic peak, the laboratory uses several methods to verify that identification. These include dual (GC) column analysis, the standard addition technique, the use of labelled compounds as surrogates in GC/massspectral analysis, and the use of two different detectors where appropriate.

Quite important to determining sample concentration levels is a knowledge of how much analyte was recovered from the original sample. The laboratory assesses recoveries for <u>every</u> sample set received by analyzing quality control samples which contain most or all of the parameters of interest. These QC samples are standards obtained from the U.S. EPA (EMSL). As an additional check, the laboratory may also employ its own QC-spiked recovery samples. Both types are carried through the entire analytical procedure in the same manner as the client's samples.

To assure accurate measurements replicate analyses are performed for client samples as well as quality assurance samples. This enables the laboratory to validate the accuracy of measurements. Reagent blanks are also carried through the entire procedure as an additional check on the integrity of the results and a check on glassware interference and experimental contamination. Requirements for preparation, analysis and reporting of quality control data are detailed in the Handbook.

6.3 Method Validation

Before a new method or a modified method is employed in the lab it must be validated. To validate a method, several in-house QA samples of various concentrations are put through the preparation and analysis sequence. The concentrations of the recoveries, duplicates and blanks are calculated to determine the method detection, accuracy, precision, interference and thus, efficiency. In addition, samples are spiked (either standard additions or labelled surrogates) to verify indentifications made via the new method. The end result is the preparation of an ERT SOP. The Handbook furnishes requirements for all phases of new method development.

7. DOCUMENTATION AND RECORDS

Records are the means by which an organization documents its operations and activities. They are an integral part of the Quality Control program for they provide documented evidence for program functionability and necessary information for performance evaluation and quality assurance audits. A major function of the Handbook is to provide a final data file which meets the most rigid documentation requirements.

7.1 Standard Operating Procedures

Standard Operating Procedures (SOP's) are written for specific procedures or operations. Complex tasks of inspection, testing, calibration, monitoring, maintenance, data handling, interpretation, report preparation and process control will be recorded and documented by a specific SOP. Many SOPs are a parts of a complete methodology. For instance, one SOP describes soxhlet extraction; however, several SOPs may be combined to create a method such as the analysis of PAH in soil. It is the responsibility of all personnel to observe the requirements of SOPs. The Handbook sets forth a specific format for generation of SOPs, as well as requirements for their use.

7.2 Sample Tracking

The laboratory must keep records of the locations and amounts of samples from the time they are received until they are disposed. In the field, the identity of the sample must be established by the field sampler. A chain-of-custody must be initiated and a label attached to each sample. These documents require detailed information.

Once in the laboratory the sample custodian must continue the chain-of-custody by commenting on the condition of the sample container, making sure the sample received is the sample collected, assigning each sample a sequential laboratory sample number and signing and dating. One of the chain-of-custody copies is submitted to the field sampler, one is filed in the laboratory files, and one goes to the section supervisor.

The sample custodian then logs the sample lab number (in consecutive order) into a bound incoming logbook and decides on its proper storage location, which is dependent on the type of analysis and probable concentration of contaminants. Finally, a sample usage log is started for each sample. This log tracks the transport and use of the sample within the lab until it is properly disposed. This final action is logged onto the sample usage sheet and chain-of-custody which is submitted to the field sampler.

The Handbook describes each phase of sample tracking, with sample forms, furnishes detailed instructions for the completion of all forms and regulates the documentation procedures.

7.3 Standards and Traceability

When a standard is prepared it is given a consecutive standard number and pertinent information such as compound, lot number, manufacturer, % activity, storage location, expiration date, solvent or carrier, amount, final volume, balance used, and date and signature of when and who prepared it are logged into a bound standard logbook. In addition, all stock standards are given a maximum use designation depending on the stability of the standard material. The Handbook

furnishes procedures for determing the shelf-life of standards as well as procedures for documenting degradation. Any dilutions of this stock standard are recorded onto a serial dilution sheet which is filed with the data in which it was used for analysis.

7.4 Maintenance Logs

Maintenance logs are kept for each instrument, as described earlier. These logs are not only a history of instrument response but can be helpful in troubleshooting the instrument. The Handbook furnishes procedures for completing and updating maintenance logs for each instrument.

7.5 Data Packages

A data package is a collection of sample preparation and analysis work sheets and raw data. Each work sheet has spaces to complete with the needed information, for that portion of the method, that will be utilized in later portions of the analytical method. With the contents of each package anyone should be able to reconstruct how the final sample and QA/QC data results were achieved. The laboratory can offer a variety of data reports of increasing complexity depending on the needs of each client. The Handbook details the minimum requirements for a data package and report as well as the specific contents of each increasingly complex data report.

7.6 Data Review

All data packages are reviewed by the analyst, resource manager and QA/QC coordinator according to specific requirements of the Handbook; including signatures, verifications, etc.

7.7 Control Limits

Control limits for both precision and accuracy are established for each analysis as soon as possible. A 95% confidence interval is calculated after sufficient samples have been analyzed. Additional QC data is added on a routine basis to determine whether each a set of analyses is "in control" and to look for trends in method performance. The Handbook describes procedures for computerized statistical analysis of QC data and furnishes requirements for generation and update of confidence intervals for each type of analysis and sample matrix.

7.8 Filing System

Filing systems are set up in the most convenient and accessible fashion. Data packages are filed first alphabetically by client, then chronologically. Chain-of-custody's, incoming sample log books andsample usage logs are also filed chronologically. The Handbook establishes minimum requirements for secure and complete data files, describes data access procedures, and details long-term data storage procedures.

8. QUALITY ASSURANCE

ERT's Newbury Park Analytical Chemistry Laboratory is willing to participate in interlaboratory tests and performance checks to provide periodic assessment of the effectiveness of our overall quality control program.

8.1 Interlaboratory Performance Surveys

Although not presently in place, performance surveys conducted by the EPA and the California Air Resources Board may constitute the bulk of interlaboratory comparisons.

ERT's performance may be evaluated by the respective agency after each round of testing, and would be reported to ERT's Laboratory Quality Assurance Officer. The Laboratory Quality Control Coordinator summarizes the results in a report to the Corporate QA Manager who reports to upper management. Procedures for use, analysis, and reporting of QA reference samples are detailed in the Handbook.

8.2 Periodic In-House Audits

In-house auditing is conducted by the National Laboratory QC Manager, with the assistance of the Laboratory QC Coordinator. These audits occur at least every 6 months, and are typically focused on a specific project. In-house audits take two forms - performance audits and systems audits. Performance audits involve submittal of blind spikes to the laboratory by the Quality Assurance Department for

assessment of analytical accuracy. Systems audits consist of a thorough review of project procedures and documentation to confirm that work was performed in accordance with the project QA Plan and that adequate documentation exists to satisfy the project requirements. The Handbook gives specific instructions for responding to audits and implementing corrective action.

8.3 QA Reporting and Corrective Action

Project performance and systems audits are reported formally to project management and to corporate management. Items requiring corrective action are documented on a Corrective Action Request Form addressed to the project manager. The Corrective Action Request is a three-part NCR-type form. The first copy is retained by QA upon issuance. The project manager receives the original and one copy. When satisfactory progress has been achieved on each requested action, the project manager or designee enters descriptions of actions and results on the form, then retains the copy and returns the original to QA to close the loop.

Results of interlaboratory performance surveys and in-house audits, along with unresolved correction action items are summarized in a quarterly report from the Quality Assurance Manager to the President.

LFG 1

MANDEVILLE & ASSOCIATES
environmental engineering services

LFG 1

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 13 OCTOBER 88 START TIME: 800 AM COMPLETION TIME: 810 AM

PROJECT NO.: 70 1032 01

TECHNICIAN: T. MERCER

BAG I.D. NO.: BAG # GAS #1 HN DATE IN SERVICE: 21 OCT 88

VISUAL CONDITION OF BAG: GOOD

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: Complete

BAG VALVES TAGGED & SEALED (SHUT OFF): Complete

BAG STORED & CHECKLIST COMPLETED: Complete

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: 645 st 1 HN

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T MERCER	13 OCT 88	810	T. Mercer	Complete	—	446 ~~inlet~~	70105201	20 OCT 88	21 OCT 88	

LFG 1

FORM17 3/17/87

82448 - 1

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HENITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
GAS #1 HN	T MERCER	13 OCT 88	810	T MERCER

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
GAS #1 HW	446	20 OCT 88	1001		CH_4	O_2		GAS #1 HW

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T MERCER	13 OCT 88	810	TINA MERCER
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
TINA MERCER	20 OCT 88	1117		E.R.T.
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	REMARKS *	
Susan Amantia	10/20/88	11:20	4	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-7-88

FORM7A

LFG 1

MANDEVILLE & ASSOCIATES
environmental engineering services
A DIVISION OF KLEINFELDER

526 Hofgaarden City of Industry, Ca. 91744 (818) 369-2224

CALIBRATION LOG

COMBINATION PPM/ LEL/ % GAS & O2 ANALYZER

MAKE GASTECH
M&A # 303
SERIAL # 0040021
MODEL # IP204

SAVED AS:LEL1

OPERATOR	DATE	BATTERY CHECK	SYSTEM LEAK CHK. (TIME SEC)	IN AIR	PUMP FLOW WITH GAS	ZERO READING PPM	LEL	CH4	O2	CORRECTED TO PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	SINGLE POINT CALIBRATION PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	COMMENTS PROBLEMS
SPC	10.19 88	OK	10	2	2	/	/	/	0	/	/	/	/	/	/	2	2	/	/	/	/	/	/	2	2	

NOTE:LEAKTEST WITH INLET PLUGGED & SQUEEZE BULB ON THE UNIT DISCHARGE.
TIME RECOVERY OF SQUEEZE BULB.

LFG 1

MANDEVILLE & ASSOCIATES
environmental engineering services
A DIVISION OF KLEINFELDER

526 Hofgaarden City of Industry, Ca. 91744 (818) 369-2224

CALIBRATION LOG

COMBINATION PPM/ LEL/ % GAS & O2 ANALYZER

MAKE Gastech
M&A # 39
SERIAL # 801001
MODEL # NP 204

SAVED AS:LEL1

OPERATOR	DATE	BATTERY CHECK	SYSTEM LEAK CHK (TIME SEC)	IN AIR	PUMP FLOW WITH GAS	ZERO READING PPM	LEL	CH4	O2	CORRECTED TO PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	SINGLE POINT CALIBRATION PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	COMMENTS PROBLEMS
SRC	10-14 88	ok	10	2	2		0	0				2.5	2.5	45	45					2.5	2.5	45	45			

NOTE: LEAKTEST WITH INLET PLUGGED & SQUEEZE BULB ON THE UNIT DISCHARGE.
TIME RECOVERY OF SQUEEZE BULB.

LFG 1

LPG 2

MANDEVILLE & ASSOCIATES
environmental engineering services

LFG 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 13 OCTOBER 88 START TIME: 812 COMPLETION TIME: 822

PROJECT NO.: 70103201

TECHNICIAN: T. MERCER

BAG I.D. NO.: GAS #2 HN DATE IN SERVICE: 21 Oct 88

VISUAL CONDITION OF BAG: GOOD

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: Complete

BAG VALVES TAGGED & SEALED (SHUT OFF): Complete

BAG STORED & CHECKLIST COMPLETED: Complete

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: GAS #2 HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. METZLER	13 OCT 88	822	T. Mercer	Complete	—	446 ~~[illegible]~~	70-1032-01	21 Oct 88	21 Oct 88	

LFG 2

FORM17 3/17/87

82958 - 1

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT LF

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
GAS #2 HW	T MERCER	13 Oct 88	822	Tina Mercer

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING CH4	FIELD TESTING O2	FIELD TESTING	SAMPLER LOCATION
GAS #2 HW	446	21 Oct 88	10 08 am		✓	✓		well #2 HW

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 Oct 88	822	T. Mercer
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. Mercer	21 Oct 88	1200	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Susan Amanto	DATE 10/21/88	TIME 1:00	REMARKS 0*

LABORATORY NAME: E.R.T.

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11/9/88

FORM7A

LFG 2

MANDEVILLE & ASSOCIATES
environmental engineering services
A DIVISION OF KLEINFELDER
526 Hofgeerden City of Industry, Ca. 91744 (818) 369-2224

CALIBRATION LOG

COMBINATION PPM/ LEL/ % GAS & O2 ANALYZER

MAKE Gastech
M&A # 303
SERIAL # 0040021
MODEL # F.P.204

SAVED AS:LEL1

OPERATOR	DATE	BATTERY CHECK	SYSTEM LEAK CHK (TIME SEC)	IN AIR	PUMP FLOW WITH GAS	ZERO READING PPM	LEL	CH4	O2	CORRECTED TO PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	SINGLE POINT CALIBRATION PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	COMMENTS PROBLEMS
TMM	10-20	OK	12	2	2				0							2	2							2	2	

TE: LEAKTEST WITH INLET PLUGGED & SQUEEZE BULB ON UNIT DISCHARGE.
TIME RECOVERY OF SQUEEZE BULB.

LFG 2

MANDEVILLE & ASSOCIATES
environmental engineering services
A DIVISION OF KLEINFELDER

526 Hofgaarden City of Industry, Ca. 91744 (818) 369-2224

CALIBRATION LOG

COMBINATION PPM/ LEL/ % GAS & O2 ANALYZER

MAKE Gastech
M&A # 34
SERIAL # 80/001
MODEL # MP204

SAVED AS: LEL1

OPERATOR	DATE	BATTERY CHECK	SYSTEM LEAK CHK (TIME SEC)	IN	IN	PUMP FLOW WITH GAS	ZERO READING PPM	LEL	CH4	O2	CORRECTED TO PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	SINGLE POINT CALIBRATION PPM	ACT.	LEL	ACT.	CH4	ACT.	O2	ACT.	COMMENTS PROBLEMS
TMM	10-20 88	OK	10	2	2		0	0					2.5	2.5	45	45					2.5	2.5	45	45			

NOTE: LEAKTEST WITH INLET PLUGGED & SQUEEZE BULB ON THE UNIT DISCHARGE.
TIME RECOVERY OF SQUEEZE BULB.

LFG 2

4B INTEGRATED SURFACE SAMPLING RESULTS

FIELD MONITORING REPORT
INTEGRATED SURFACE SAMPLES

MANDEVILLE & ASSOCIATES
environmental engineering services

FIELD SAMPLING LOG

DATE: 10-20-88
LOCATION: Hewitt Landfill
TECHNICIAN: T. Mercer
WEATHER CONDITION: Haze
BAROMETRIC PRESSURE START: 29.99
BAROMETRIC PRESSURE FINISH: 29.99
WEAHER STATION: Monte A.D.AS.
INSTRUMENTS USED & SERIAL #'S Foxboro OVA 128 #410 SN# 40262
Gastech NP204 #39 801001
Gastech IP204 #303 0040021

M & A PROJECT NO. 70-1032-01

LOCATION NO.	CH_4 PPM	% LEL	CH_4 % VOLUME	% O_2	EVACUATION TIME		BAG I.D. NO.	TESTING TIME
Grid 1	22 ppm	N.D.	N.D.	21	747	813	FSS-1-HW	10:25
Grid 2	8 ppm	N.D.	N.D.	21	740	806	FSS-1-HW	10:25

REVIEWED BY: [illegible] DATE: 10-25-88

FORM 18

WIND MONITORING RESULTS

SURFACE SAMPLING

WIND SPEED AND DIRECTION DATA
INTEGRATED SURFACE SAMPLING

Hewitt Landfill
20 October 1988

Time (local)	Wind Direction (16-point)	Wind Speed (mph)
0730-0745	15	3
0745-0800	15	3
0800-0815	16	2
0815-0830	2	1

INTEGRATED SURFACE SAMPLING
QUALITY ASSURANCE/QUALITY CONTROL

OPERATING PROCEDURES

The surface sampler unit is checked prior to use for leaks and to ensure proper operation of the flowmeter and pumps. The tubing and pump are flushed with nitrogen and a sample drawn to establish background levels. Battery voltage levels are checked prior to each use. Spare batteries also are kept on hand.

All required field checklists are completed and the grid is properly marked on the topographic map. The sampler is started, and the flow rate is allowed to stabilize for three minutes, with adjustment to the proper setting if necessary. Prior to collecting the next sample, the flow rate is verified and batteries are checked to ensure they are sufficiently charged. Meteorological conditions are evaluated to ensure guideline criteria have been met prior to sampling. The bag valve is closed before connection to the sampler. The box is connected to the sampler and the bag valve to the sampler discharge. All required data are recorded on the box (grid number, etc.). The valve is then opened, and the walking pattern is completed across the grid. Upon completion, all required data are recorded.

Bag Purging Procedure

After the contents of a sample bag have been analyzed, the bag is evacuated and filled with prepurified nitrogen three times to flush out the old sample. Care is taken during the filling process not to overfill the bag and either burst the bag or stress the bag seams. Following the final nitrogen purge, the bag is evacuated and the valve closed. Prior to sending the bag into the field again, it is checked to make sure that the vacuum has been maintained. If leakage has occurred, the bag is removed from service.

Chain of Custody

A custody sheet accompanies each bag to be installed, and is returned with each filled sample bag. Each time that either the replacement bag or the filled bag changes hands, the recipient must sign the custody sheet. The time of custody transfer is recorded, and laboratory personnel also record the condition of the sample (full, overfull, one-half full, one-fourth full, or empty).

Location of Sampling Areas

The approved sampling grid locations were indicated on the topographic map. The technician located and laid out the walking path for the grid to be sampled. Locating the grids can be accomplished by using a compass, measuring wheel, and ruler. Topographic maps show the direction of true north, and also list a measurement scale to equate inches on the map to feet on the site. Bearings taken on the topographic map can be used for alignment of the site.

Once the point grid was determined, the actual walking path was established. This was done using the measuring wheel and marker cones. The outer dimensions of the sampling grid were approximately 500 feet long by 100 feet wide (50,000 square feet). Marker cones were placed at each corner point of the grid. The length of the grid was then traversed in 25-foot increments until the entire grid had been sampled.

QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

Certain forms must be completed before, during, and after sampling to ensure all procedures and regulations have been met. These are the surface sampler check list, which lists all the requirements and steps which must be taken prior to sampling, and chain-of-custody forms, which remain with the samples to ensure proper transfer of samples.

Acceptance Testing

Dedicating individual bags to a specific sampler reduces confusion and, more importantly, builds a historical data base by which the performance of the pumps and bags can be monitored. Significant changes in the data are used as flags to check the integrity of the sampling system and thereby prevent invalid data from being reported and minimize the loss of data.

Either upon new issue or reissue of a Tedlar bag, proper testing and purging of the bag must be performed. The first step is to carefully remove the Tedlar bag from its box. The bag is checked to ensure it is properly identified. If the bag is for reissue, any remaining sample within the bag is evacuated with a vacuum pump. The next step is to carefully fill the bag with prepurified nitrogen so as not to overinflate the bag, causing unnecessary stress to the seams and connections. If any leaks are detected, the bag is removed from service. After this step is completed, the vacuum pump is connected to the bag, the valve is opened, and all nitrogen evacuated. The bag valve is closed, then filling and evacuation are repeated two more times, ensuring that fill lines have been purged prior to opening the bag valve. Upon completion of the final purge, <u>all</u> sample must be removed from the bag and the bag must be under vacuum before its valve is closed. The required information is then properly logged on the Tedlar bag historical log and on the Tedlar bag purging/inspection checklist. Bags are returned with valves closed and sealed to corresponding boxes for storage.

Prior to putting new pumps or new units into service, certain checks are performed and precautions taken to ensure the integrity of the sample. Each new bag is carefully inspected for holes or tears. The inlet valve to the bag is checked to ensure freedom of movement and proper sealing. Then the bag is put into its cardboard container and sealed against light to prevent photochemical reactions from occurring in the sample.

Sampler contamination testing will occur as indicated by analytical historical records, or unit has been inadvertently exposed to potential contamination sources.

Flow Rate Checks

Rotameters are calibrated by an SKC calibration flowmeter. A calibration curve is developed for each rotameter. Prior to initial use, the rotameter is marked at a point equivalent to 333 cubic centimeters per minute (cc/min). As operational data indicate, the actual flow rate at the mark appropriate for the specific sampling program is checked using an SKC calibration flowmeter. If the measured flow differs from the calibrated flow by ± 10 percent, the rotameter and/or pump is either cleaned or replaced and a new calibration curve is produced.

Voltage Checks

Every 30 days of operation, the battery voltage is checked with a voltmeter. If the voltage falls below 12-V dc, the batteries are replaced with fully charged batteries.

Performance Audits

After initial quality assurance and acceptance testing, acceptance testing is performed annually. Flow audits are performed as needed based on field performance, and the calibration curves updated. Pumps are cleaned and inspected annually or as operational performance warrants. After each field use, the units are flushed with prepurified nitrogen, then the sampling intake and discharge ports sealed off with rubber caps.

INTEGRATED SURFACE SAMPLING QUALITY ASSURANCE DOCUMENTATION

Wind Speed/Direction Instrumentation Checklist
Monitoring Instrument Calibration Log

Grid 1	Grid 2

Integrated Surface Sampler Checklists
Bag Purging/Inspection Checklists
Bag Historical Logs
Sample Chain-of-Custody Records
Field Sampling Records

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/SS

CLIMATRONICS WIND SPEED/DIRECTION INSTRUMENTATION CHECKLIST

PROJECT NO. 70-1032-01

SITE: Hewitt Landfill

DATE: 10-20-88

TECHNICIAN: T. Mercer

RECORDER NO.: 435

MONITORING LOCATION ESTABLISHED & MARKED ON TOPO: YES [X] NO [ ]

LOCATION FREE OF POTENTIAL WIND OBSTRUCTION: YES [X] NO [ ]

EQUIPMENT TESTED PRIOR TO USE: YES [X] NO [ ]

BATTERY FULLY CHARGED & TESTED PRIOR TO USE: YES [X] NO [ ]

ADEQUATE CHART PAPER ON RECORDER: YES [X] NO [ ]

EQUIPMENT ASSEMBLED & MAST RAISED & SECURED: YES [X] NO [ ]

CROSSARM ALIGNED TO TRUE NORTH: YES [X] NO [ ]

RECORDER & BATTERY SECURED: YES [X] NO [ ]

ALL CONNECTIONS MADE: YES [X] NO [ ]

RECORDER FUNCTIONAL: YES [X] NO [ ]

ALL STARTING DATA RECORDED ON CHART PAPER: (SITE, TECH. DATE, TIME, CONDITIONS, RECORDER NO., ETC) YES [X] NO [ ]

ALL EQUIPMENT LOCKED & SECURED: YES [X] NO [ ]

COMMENTS/PROBLEMS:

FORM3 3/18/87

OVA CALIBRATION LOG

MAKE Foxboro
M&A # 410
SERIAL # 40262
MODEL # OVA 128

SAVED AS: OVA1

OPERATOR	DATE	BATTERY CHECK	FLOW METER READING	PRESSURE AT SUCTION "V.O.	ZERO READING 10 PPM	100 PPM	1000 PPM	CH4 CALIBRATION GAS UNCORRECTED READINGS PPM	LOW ACT.	PPM	MED. ACT.	PPM	HIGH ACT.	CH4 CALIBRATION GAS CORRECTED READINGS PPM	LOW CAL.	PPM	MED. CAL.	PPM	HIGH CAL.	9 FT. CALIBRATION GOES READ PPM 4.9 PPM	50 PPM	480 PPM	SPECIAL INSTRUMENT USE & APPROVED	COMMENTS PROBLEMS
TMM	10-20 88	ok	2	60"	0	0	0	3	4.9	46	50	420	480	5	4.9	50	50	480	480	5	50	480	TMM	

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Grid 1

MANDEVILLE & ASSOCIATES
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GRID 1

INTEGRATED SURFACE SAMPLER CHECK LIST

PROJECT NO. 70-1032-01 SITE HENITT

SAMPLER NO. 347

TECHNICIAN: T. VASQUEZ

IS CONTINUOUS WIND SPEED RECORDER SET UP IN REPRESENTATIVE AREA OF SITE: YES [✓] NO [ ]

IS CONTINUOUS RECORDER READING LESS THAN 5 MPH ON 10 MIN. AVG. YES [✓] NO [ ]

HAS THERE BEEN ANY RAINFALL WITHIN 72 HOURS: YES [ ] NO [✓]

GRID ASSIGNED NO. ON MAP: YES [✓] NO [ ]

GRID MARKER IN PLACE: YES [✓] NO [ ]

GRID FIELD MARKED: YES [✓] NO [ ]

LEAK CHECK PERFORMED: YES [✓] NO [ ]

FLOW SETTING (APPROX. 333 CC/MIN.) 333CC per min

3" LEVEL MARKER IN PLACE: YES [✓] NO [ ]

IS TEDLAR BAG STILL SEALED: YES [✓] NO [ ]

IS TEDLAR BAG CONNECTED & STRAPPED IN PLACE: YES [✓] NO [ ]

IS VALVE ON BAG OPEN/SAMPLING STARTING: YES [✓] NO [ ]

TIME (START): 740

FLOW (START): 333 cc

TIME (STOP): 806

FLOW (STOP): 333 cc

DISTANCE WALKED: 2600 ft.

BAG VOLUME: FULL [ ] 3/4 [ ] 1/2 [✓] 1/4 [ ] EMPTY [ ]

MANDEVILLE & ASSOCIATES
environmental engineering services

GRID 1

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 13 OCTOBER 88 START TIME: 8:25 AM COMPLETION TIME: 8:35 AM

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: ISS #1 HN DATE IN SERVICE: 10/20/88

VISUAL CONDITION OF BAG: GOOD

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: COMPLETE

BAG VALVES TAGGED & SEALED (SHUT OFF): COMPLETE

BAG STORED & CHECKLIST COMPLETED: COMPLETE

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: ISS #1 HN

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	13 OCT 88	8.35 AM	T. Vasey	COMPLETE	347	347	70-1032-0	10/24/88		

GRID 1

FORM17 3/17/87

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
ISS #1 HW	T. MERCER	13 OCT 88	8:35	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLE CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING: TOC	FIELD TESTING	FIELD TESTING	SAMPLER LOCATION
ISS #1 HW	347	10/20	806	—	✓			Grid #1

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 OCT 88	8:35	[signature]
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	REMARKS

LABORATORY NAME: Mandeville & Associates

COMMENTS:

Grid 1

FORM7A

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 10-21-88

Field Sampling Record

Grid 1

DATE: 20 OCTOBER 88

TECHNICIAN: T. VASQUEZ

SITE: HEWITT

PROJECT #: 70-1032-01

BARO START: 29.99

BARO FINISH: 29.99

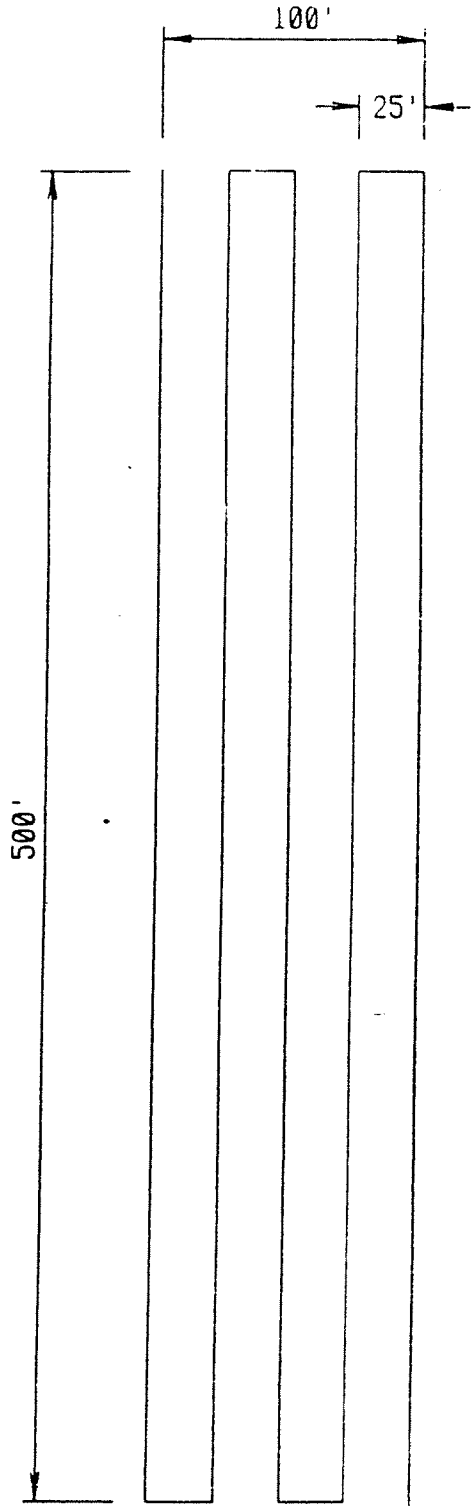
START TIME: 7.40

FINISH TIME: 8.06

WEATHER CONDITIONS: OVERCAST

INSTRUMENT ID: #347

BACKGROUND CONCENTRATION: 1 PPM



Grid 2

MANDEVILLE & ASSOCIATES
environmental engineering services

GRID 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 13 OCTOBER 88 START TIME: 8:37 AM COMPLETION TIME: 8:47 AM

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: ISS #2 HN DATE IN SERVICE: 20 OCT 88

VISUAL CONDITION OF BAG: GOOD

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: COMPLETE

BAG VALVES TAGGED & SEALED (SHUT OFF): COMPLETE

BAG STORED & CHECKLIST COMPLETED: COMPLETE

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: ISS #2 HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	13 OCT 88	8:47 A.M.	T Mercer	Complete	346	# 346	70-1032-01	20 OCT 88	—	

GRID 2

*DRH17 3/17/87

MANDEVILLE & ASSOCIATES
environmental engineering services

GRID 2

INTEGRATED SURFACE SAMPLER CHECK LIST

PROJECT NO. 70-1032-01 SITE HEWITT

SAMPLER NO. # 346

TECHNICIAN: Tiwa Mercer

IS CONTINUOUS WIND SPEED RECORDER SET UP IN REPRESENTATIVE AREA OF SITE: YES [✓] NO [ ]

IS CONTINUOUS RECORDER READING LESS THAN 5 MPH ON 10 MIN. AVG. YES [✓] NO [ ]

HAS THERE BEEN ANY RAINFALL WITHIN 72 HOURS: YES [ ] NO [✓]

GRID ASSIGNED NO. ON MAP: YES [✓] NO [ ]

GRID MARKER IN PLACE: YES [✓] NO [ ]

GRID FIELD MARKED: YES [✓] NO [ ]

LEAK CHECK PERFORMED: YES [✓] NO [ ]

FLOW SETTING (APPROX. 333 CC/MIN.) 333cc/per minute

3" LEVEL MARKER IN PLACE: YES [✓] NO [ ]

IS TEDLAR BAG STILL SEALED: YES [✓] NO [ ]

IS TEDLAR BAG CONNECTED & STRAPPED IN PLACE: YES [✓] NO [ ]

IS VALVE ON BAG OPEN/SAMPLING STARTING: YES [✓] NO [ ]

TIME (START): 7:47 A.M.

FLOW (START): 333cc per minute

TIME (STOP): 8:13 A.M.

FLOW (STOP): 333 cc per minute

DISTANCE WALKED: 2,600 FT

BAG VOLUME: FULL [✓] 3/4 [ ] 1/2 [ ] 1/4 [ ] EMPTY [ ]

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
ISS #2 HW	T. MERCER	13 OCT 88	8:47 AM	T. MERCER

FIELD SAMPLING RECORD

SAMPLE CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING: TOC	FIELD TESTING	FIELD TESTING	SAMPLER LOCATION
ISS #2 HW	#346	20 OCT 88	8:13 A.M.	—	✓			GRID #2

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 OCT 88	8:47 AM	T. Mercer
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	REMARKS

LABORATORY NAME: Mandeville Associates

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: Kel DATE: 10-21-88

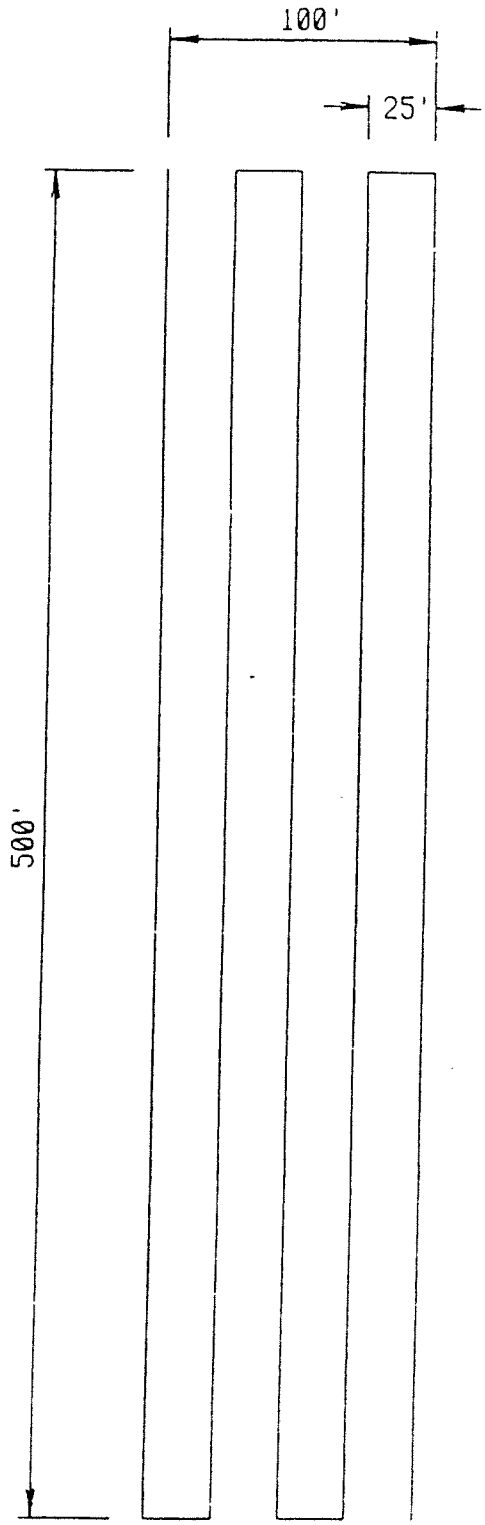
Grid 2

FORM7A

Field Sampling/Monitoring Record

Grid 2

DATE:	20 October 87
TECHNICIAN:	Tina Mercer
SITE:	HEWITT
PROJECT #:	70-1032-01
BARO START:	29.99
BARO FINISH:	29.99
START TIME:	7:47 A.M
FINISH TIME:	8:13 A.M.
WEATHER CONDITIONS:	OVERCAST
INSTRUMENT ID:	#346
BACKGROUND CONCENTRATION:	1 ppm



4C AMBIENT AIR SAMPLING RESULTS

ANALYTICAL REPORTS AND QUALITY ASSURANCE SUMMARIES
AMBIENT AIR SAMPLES

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 11, 1988
Date Analyzed:	November 11, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83168-3	831658-4	83168-5
Sample I.D. No.:	AA-1	AA-2	AA-3
Vinyl chloride	<2	<2	<2

Vinyl chloride was the only compound analyzed as requested.

Fred Thomas
Laboratory Manager

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 11, 1988
Date Analyzed:	November 11, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83168-6	831658-7
Sample I.D. No.:	AA-4A	AA-4B
Vinyl chloride	<2	<2

Vinyl chloride was the only compound analyzed as requested.

Fred Thomas
Laboratory Manager

ENSR

QUALITY ASSURANCE SUMMARY
(Duplicates Analyses)

P.O. #: EE357-70-1032-01
ENSR Project #: 8700-004-306
M&A Project #: 70-1032-01
Site: Hewitt Landfill

Ambient Air Samples

Date Received: November 11, 1988
Date Analyzed: November 11, 1988

Component	Duplicates Analyses Run #1	Run #2	Mean Conc.	% Diff. from Mean
	(Concentration in ppb)			
Vinyl Chloride	<2	<2	---	---

A set of 5 samples, laboratory numbers 83168-(3-7) was analyzed for Calderon components. Agreement between duplicate analyses is a measure of precision and is shown above in the column "% Difference from Mean". Duplicate analyses are an important part of ENSR's quality assurance program.

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 17, 1988
Date Analyzed:	November 17, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83228-5	83228-6	83228-7
Sample I.D. No.:	AA-1	AA-2	AA-3
Vinyl chloride	<2	<2	<2

Vinyl chloride was the only component analyzed as requested by client.

Fred Thomas
Laboratory Manager

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 17, 1988
Date Analyzed:	November 17, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83228-8	83228-9	83228-10
Sample I.D. No.:	AA-4A	AA-4B	AA-1
Vinyl chloride	<2	<2	<2

Vinyl chloride was the only component analyzed as requested by client.

Fred Thomas
Laboratory Manager

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 17, 1988
Date Analyzed:	November 17, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83228-11	83228-12	83228-13
Sample I.D. No.:	AA-2	AA-3	AA-4A
Vinyl chloride	<2	<2	<2

Vinyl chloride was the only component analyzed as requested by client.

Fred Thomas
Laboratory Manager

ENSR

Air Analysis Laboratory

LABORATORY ANALYSIS REPORT

Calderon Air Contaminants
Analysis in Ambient Air Samples

P.O. No.:	EE357-70-1032-01
Project No.:	70-1032-01
Site :	Hewitt Landfill
Date Received:	November 17, 1988
Date Analyzed:	November 17, 1988

Sample Concentration in ppbv

ENSR Lab No.:	83228-14
Sample I.D. No.:	AA-4B
Vinyl chloride	<2

Vinyl chloride was the only component analyzed as requested by client.

Fred Thomas
Laboratory Manager

ENSR

QUALITY ASSURANCE SUMMARY
(Duplicates Analyses)

P.O. #: EE357-70-1032-01
ENSR Project #: 8700-004-306
Project #: 70-1032-01
Site: Hewitt Landfill

Ambient Air Samples

Date Received: November 17, 1988
Date Analyzed: November 17, 1988

Component	Duplicates Analyses Run #1	Run #2	Mean Conc.	% Diff. from Mean
	(Concentration in ppb)			
Vinyl Chloride	<2	<2	---	---
	<2	<2	---	---

A set of 10 samples, laboratory numbers 83228-(5-14) was analyzed for vinyl chloride. Agreement between duplicate analyses is a measure of precision and is shown above in the column "% Difference from Mean". Duplicate analyses are an important part of ENSR's quality assurance program.

AMBIENT AIR SAMPLING
QUALITY ASSURANCE/QUALITY CONTROL

EQUIPMENT SET-UP

The sampler locations were approved by the District before the equipment was transferred to the site. Extreme care was used in handling the samplers, as the components are very sensitive to sharp blows and vibrations. The samplers are quite heavy and bulky, requiring special care when handling.

Extreme care must also be used when handling the deep-cycle marine batteries, as batteries contain sulfuric acid which is highly corrosive. Acid may spill or batteries can explode if terminals are crossed or if fumes ignite from an ignition source. Batteries should not be exposed to any potential ignition source such as open flame or burning cigarettes. Care must also be used while transporting the batteries. Ensure batteries will not accidently move or tip over. A Material Safety Data Sheet, with spill/fire instructions, must be present in the vehicle. Maximum allowable weight of batteries that can be transported is 1,200 pounds.

The sampler was placed in the precise location determined by the meteorologist. Any deviations from the recommended location (i.e., specified location is inaccessible due to water ponding, rocks, roadway, etc.) were noted. The sampler was placed as close as possible to recommended area, and the location change was noted on the topographical map. Tie-down stakes were driven into the ground at a distance of two to three feet from the sampler, angling the stakes toward the sampler. Chains were inserted through handles on the sampler and secured with padlocks to the stakes.

OPERATIONAL AND RECORDKEEPING PROCEDURES

Identification and Assignment

Each Tedlar bag is given a unique identification number from a sample bag log book, documenting the date that the bag was put into operation, the site location, the sampler designation (including pump number within a sampling unit), and the date that it was removed from service.

Sampling Procedures

The following procedures were followed during sampling:

A. Prior to sampling, ensure that the sampling station site description form has been completed, and the chosen location meets specified criteria.

B. A bag sampler checklist must be completed for each sample as each operation is performed. First, complete the upper portion of the checklist.

C. Program the ChronTrol timer.

D. Check the sampler pump scheduled to be currently in operation and complete the Pre-Bag Installation Check section of the checklist.

E. Establish the proper flow setting. The rotameter floats (measured at the center of the glass or steel ball) should be within +3 and -6 minor graduations of the established setting on the internal rotameters. The flow setting is established by graphing the mm-scale reading of the internal rotameter against the readings (in LL/min) of a SKC West, Dual-Hi-Low Flow Calibration Rotameter. This graph allows the technician to determine the setting on the internal rotameter, based on the flow that is required for a given sample.

F. Ensure checklist, sampling station site description form, and chain-of-custody records are kept in the sampler. Lock the sampler doors.

Bag Removal

No attempts were made to repair the sampler or adjust the clock prior to bag removal. Findings are noted in the Bag Removal section of the checklist. After completion of the checklist, the chain-of-custody record is prepared.

Chain of Custody

A custody sheet was provided for each bag that was installed. Each time that either the replacement bags or the filled bags changed hands, the recipient signed the custody sheet. The time of custody transfer was recorded, along with the condition of the sample.

QUALITY ASSURANCE/QUALITY CONTROL DOCUMENTATION

Three forms must be completed before and after sampling to ensure proper procedures have been followed. These are the Site Description Form, which lists any nearby obstructions or possible sources of sample influence; the Bag Sampler Checklist, which ensures that the sampler has been properly set up and is ready for use; and the Chain-of-Custody Sheets which accompany each sample at all times, from the time of issuance to the time the samples reach the laboratory for analysis. This allows tracking the samples as they change hands from field to laboratory.

Acceptance Testing

Dedicating individual bags to a specific sampler reduces confusion and, more importantly, builds a historical data base by which the performance of the pumps and bags can be monitored. Significant changes in the data are used as flags to check the integrity of the sampling system and thereby prevent invalid data from being reported and minimize the loss of data.

Either upon new issue or reissue of a Tedlar bag, proper testing and purging of the bag must be performed. The first step is to carefully remove the Tedlar bag from its box. Ensure that the bag is properly identified. If the bag is for reissue, evacuate any remaining sample within the bag with a vacuum pump. The next step is to carefully fill the bag with prepurified nitrogen so as not to overinflate the bag, causing unnecessary stress to the seams and connections. If any leaks are detected, the bag is removed from service. After this step is completed, connect the vacuum pump to the bag, open the valve and evacuate all nitrogen. Close the bag valve, then fill and repeat evacuation two more times, ensuring that fill lines have been purged prior to opening the bag valve. Upon completion of the final purge, ensure that all sample has been removed from the bag and the bag is under vacuum before its valve is closed. Properly log required information on the Tedlar Bag Historical Log and on the Tedlar Bag Purging/Inspection Checklist. Return bags with valves closed and sealed to corresponding boxes for storage.

Prior to putting new pumps or new units into service, certain checks are performed and precautions taken to ensure the integrity of the sample. Each new bag is carefully inspected for holes or tears.. The inlet valve to the bag is checked to ensure freedom of movement and proper sealing. Then the bag is put into its cardboard container and sealed against light to prevent photochemical reactions from occurring in the sample.

Sampler contamination testing will occur as indicated by analytical historical records, of if unit has been inadvertently exposted to potential contamination services. If field testing results indicate contaminantion, testing shall be performed as necessary.

Flow Rate Checks

When adjustment is indicated based on field performance, the actual flow rate at the mark for 6.0 cc/min (or at the flow rate appropriate for the specific sampling program) is checked using an SKC Calibration Flowmeter. If the measured flow differs from the calibrated flow by ± 10 percent, the rotameter and/or pump is either cleaned or replaced and a new calibration curve is produced.

Voltage Checks

Every 30 days of operation, and before each use, the battery voltage is checked with a voltmeter. If the voltage falls below 12-V dc, the batteries are replaced with fully-charged batteries.

AIR SAMPLING QUALITY ASSURANCE DOCUMENTATION

Sampling Station Site Description Forms
Bag Sampler Checklists
Bag Purging/Inspection Checklists
Bag Historical Logs
Sample Chain-of-Custody Records

Sampling Station Site Description Forms

Site 1	24-hour Upwind
Site 2	24-hour Downwind
Site 3	Less-than-24-hour Drainage
Site 4A/4B	Collocated Less-than-24-hour Drainage Samplers

Site 1 24-hour Upwind

MANDEVILLE & ASSOCIATES
environmental engineering services

SITE 1

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

LANDFILL NAME: Hewitt Landfill PROJECT NUMBER: 20-1052-01

VISIBLE SOURCES: Autos

DISTANCE FROM SAMPLER: 50 + Ft

KNOWN EMISSION SOURCES: Autos

TYPE: Auto Emissions

LOCATION: @ 50' to N.West of Sampler

EQUIPMENT IDENTIFICATION

BAG SAMPLER ID NUMBER: 344-2

EQUIPMENT CHANGES DURING PROJECT: None

IS THERE AN EXTRACTION SYSTEM CURRENTLY IN PLACE: YES [X] NO [ ]

IS IT OPERATIONAL: YES [X] NO [ ]

INLET PROBE HEIGHT (MUST BE BETWEEN 6 AND 9 FEET ABOVEGROUND): 5 1/2 ft

SAMPLING EXPOSURE (SAMPLER PROBE MUST BE AT LEAST 60 FT. FROM OBSTACLES):

DIRECTION: NORTH TYPE OF OBSTRUCTION: Fences, Cars

HEIGHT: 6-8 ft DISTANCE FROM SAMPLER: 50-100 ft

DIRECTION: EAST TYPE OF OBSTRUCTION: Fence

HEIGHT: 10 ft DISTANCE FROM SAMPLER: 0-15 ft

DIRECTION: SOUTH TYPE OF OBSTRUCTION: Fence

HEIGHT: 10 ft DISTANCE FROM SAMPLER: 10.5 ft

DIRECTION: WEST TYPE OF OBSTRUCTION: Cars, Trailers

HEIGHT: 6-12 ft DISTANCE FROM SAMPLER: 50-100+ Ft

(CONTINUED)

MANDEVILLE & ASSOCIATES
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SITE 1

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

SAMPLER LOCATION

INDICATE LOCATION OF SAMPLER ON THE ATTACHED LANDFILL SITE MAP, DRAWN TO SCALE. (THE SAMPLER MUST BE AT OR NEAR THE PERIMETER OF THE WASTE DISPOSAL SITE.)

SAMPLER DESIGNATION (CHECK WHERE APPROPRIATE):

X UPWIND ____ DOWNWIND

X 24-HOUR ____ LESS-THAN-24-HOUR (DIRECTIONALLY-CONTROLLED) ____ COLLOCATED

AIR FLOW AROUND INLET PROBE: 360° DEGREES

(AIR FLOW RESULT BE UNRESTRICTED IN ARC OF LEAST 270 DEGREE PREDOMINANT WIND DIRECTION FOR GREATEST POLLUTANT CONCENTRATION POTENTIAL MUST BE INCLUDED IN THE 270 DEGREE ARC.)

PREDICTED PREVAILING WIND PATTERN FOR SAMPLING DATE: Southeast

(PREDOMINANT WIND FLOW DIRECTION MUST BE ACROSS MAIN BODY OF DISPOSAL SITE TO DOWNWIND SAMPLING STATION.)

FORM28

Site 2 24-hour Downwind

MANDEVILLE & ASSOCIATES
environmental engineering services

SITE 2

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

LANDFILL NAME: Hewitt Landfill PROJECT NUMBER: 20-1032-01

VISIBLE SOURCES: Landfill, Autos

DISTANCE FROM SAMPLER: Sampler on fill, cars to N & West

KNOWN EMISSION SOURCES: Landfill, Autos

TYPE: L.F.G & Auto Emissions

LOCATION: Sampler on N End of fill, Autos to North & West

EQUIPMENT IDENTIFICATION

BAG SAMPLER ID NUMBER: 424-1

EQUIPMENT CHANGES DURING PROJECT: None

IS THERE AN EXTRACTION SYSTEM CURRENTLY IN PLACE: YES [X] NO [ ]

IS IT OPERATIONAL: YES [X] NO [ ]

INLET PROBE HEIGHT (MUST BE BETWEEN 6 AND 9 FEET ABOVEGROUND): 5½ ft

SAMPLING EXPOSURE (SAMPLER PROBE MUST BE AT LEAST 60 FT. FROM OBSTACLES):

DIRECTION: NORTH TYPE OF OBSTRUCTION: Fence / Plants

HEIGHT: 8-10 ft DISTANCE FROM SAMPLER: 875 ft

DIRECTION: EAST TYPE OF OBSTRUCTION: Buildings, wall

HEIGHT: 8-35 ft DISTANCE FROM SAMPLER: 200 plus ft.

DIRECTION: SOUTH TYPE OF OBSTRUCTION: None

HEIGHT: – DISTANCE FROM SAMPLER: –

DIRECTION: WEST TYPE OF OBSTRUCTION: Buildings, Fence

HEIGHT: 8-20 ft DISTANCE FROM SAMPLER: @ 100 ft

(CONTINUED)

MANDEVILLE & ASSOCIATES
environmental engineering services

SITE 2

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

SAMPLER LOCATION

INDICATE LOCATION OF SAMPLER ON THE ATTACHED LANDFILL SITE MAP, DRAWN TO SCALE. (THE SAMPLER MUST BE AT OR NEAR THE PERIMETER OF THE WASTE DISPOSAL SITE.)

SAMPLER DESIGNATION (CHECK WHERE APPROPRIATE):

____ UPWIND X DOWNWIND

X 24-HOUR ____ LESS-THAN-24-HOUR (DIRECTIONALLY-CONTROLLED) ____ COLLOCATED

AIR FLOW AROUND INLET PROBE: 360° DEGREES

(AIR FLOW RESULT BE UNRESTRICTED IN ARC OF LEAST 270 DEGREE PREDOMINANT WIND DIRECTION FOR GREATEST POLLUTANT CONCENTRATION POTENTIAL MUST BE INCLUDED IN THE 270 DEGREE ARC.)

PREDICTED PREVAILING WIND PATTERN FOR SAMPLING DATE: Southeast

(PREDOMINANT WIND FLOW DIRECTION MUST BE ACROSS MAIN BODY OF DISPOSAL SITE TO DOWNWIND SAMPLING STATION.)

FORM2B

Site 3 Less-than-24-hour Drainage

MANDEVILLE & ASSOCIATES
environmental engineering services

SITE 3

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

LANDFILL NAME: Hewitt Landfill

VISIBLE SOURCES: Autos PROJECT NUMBER: 70-1032-01

DISTANCE FROM SAMPLER: 50 ft

KNOWN EMISSION SOURCES: Autos

TYPE: Auto Emissions

LOCATION: ~50' to N. West of sampler

EQUIPMENT IDENTIFICATION

BAG SAMPLER ID NUMBER: 341-2

EQUIPMENT CHANGES OURING PROJECT: None

IS THERE AN EXTRACTION SYSTEM CURRENTLY IN PLACE: YES [X] NO [ ]

IS IT OPERATIONAL: YES [X] NO [ ]

INLET PROBE HEIGHT (MUST BE BETWEEN 6 AND 9 FEET ABOVEGROUND): 6½ ft

SAMPLING EXPOSURE (SAMPLER PROBE MUST BE AT LEAST 60 FT. FROM OBSTACLES):

DIRECTION: NORTH TYPE OF OBSTRUCTION: Fences, Cars

HEIGHT: 6-8 ft DISTANCE FROM SAMPLER: 50-100

DIRECTION: EAST TYPE OF OBSTRUCTION: Fence

HEIGHT: 10 ft DISTANCE FROM SAMPLER: 10-15 ft

DIRECTION: SOUTH TYPE OF OBSTRUCTION: Fence

HEIGHT: 10 ft DISTANCE FROM SAMPLER: 10-15 ft

DIRECTION: WEST TYPE OF OBSTRUCTION: Cars, Trailers

HEIGHT: 6-12 ft DISTANCE FROM SAMPLER: 50-100 + ft

(CONTINUED)

MANDEVILLE & ASSOCIATES
environmental engineering services

SITE 3

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

SAMPLER LOCATION

INDICATE LOCATION OF SAMPLER ON THE ATTACHED LANDFILL SITE MAP. DRAWN TO SCALE. (THE SAMPLER MUST BE AT OR NEAR THE PERIMETER OF THE WASTE DISPOSAL SITE.)

SAMPLER DESIGNATION (CHECK WHERE APPROPRIATE):

___ UPWIND ___ DOWNWIND

___ 24-HOUR X LESS-THAN-24-HOUR (DIRECTIONALLY-CONTROLLED) ___ COLLOCATED

AIR FLOW AROUND INLET PROBE: 360° DEGREES

(AIR FLOW RESULT BE UNRESTRICTED IN ARC OF LEAST 270 DEGREE PREDOMINANT WIND DIRECTION FOR GREATEST POLLUTANT CONCENTRATION POTENTIAL MUST BE INCLUDED IN THE 270 DEGREE ARC.)

PREDICTED PREVAILING WIND PATTERN FOR SAMPLING DATE: Southeast

(PREDOMINANT WIND FLOW DIRECTION MUST BE ACROSS MAIN BODY OF DISPOSAL SITE TO DOWNWIND SAMPLING STATION.)

FORM2B

Site 4A/4B Collocated Less-than-24-hour Drainage Samplers

MANDEVILLE & ASSOCIATES
environmental engineering services

SITES 4A/4B

AMBIENT AIR SAMPLING STATION SITE DESCRIPTION FORM

SAMPLER LOCATION

INDICATE LOCATION OF SAMPLER ON THE ATTACHED LANDFILL SITE MAP, DRAWN TO SCALE. (THE SAMPLER MUST BE AT OR NEAR THE PERIMETER OF THE WASTE DISPOSAL SITE.)

SAMPLER DESIGNATION (CHECK WHERE APPROPRIATE):

___ UPWIND ___ DOWNWIND

___ 24-HOUR X LESS-THAN-24-HOUR (DIRECTIONALLY-CONTROLLED) X COLLOCATED

AIR FLOW AROUND INLET PROBE: 360° DEGREES

(AIR FLOW RESULT BE UNRESTRICTED IN ARC OF LEAST 270 DEGREE PREDOMINANT WIND DIRECTION FOR GREATEST POLLUTANT CONCENTRATION POTENTIAL MUST BE INCLUDED IN THE 270 DEGREE ARC.)

PREDICTED PREVAILING WIND PATTERN FOR SAMPLING DATE: Southeast

(PREDOMINANT WIND FLOW DIRECTION MUST BE ACROSS MAIN BODY OF DISPOSAL SITE TO DOWNWIND SAMPLING STATION.)

FORM2B

MANDEVILLE & ASSOCIATES
environmental engineering services

SITES 4A/4B

AMBIENT AIR SAMPLING STATION
SITE DESCRIPTION FORM

LANDFILL NAME: Hewitt Landfill

VISIBLE SOURCES: Flare Burner, Landfill, Autos & Trucks PROJECT NUMBER: 20-1032-01

DISTANCE FROM SAMPLER: Flare approx 120 ft to N.E. Sampler on Fill edge, Autos @ 100' North

KNOWN EMISSION SOURCES: Flare, Landfill, Autos

TYPE: Landfill Gas Combustion Emmissions, Landfill Gas, Auto Emissions

LOCATION: Generally to N.E of Sampler

EQUIPMENT IDENTIFICATION

BAG SAMPLER ID NUMBER: 428-1/-2

EQUIPMENT CHANGES DURING PROJECT: None

IS THERE AN EXTRACTION SYSTEM CURRENTLY IN PLACE: YES [X] NO [ ]

IS IT OPERATIONAL: YES [X] NO [ ]

INLET PROBE HEIGHT (MUST BE BETWEEN 6 AND 9 FEET ABOVEGROUND): 6 1/2 ft

SAMPLING EXPOSURE (SAMPLER PROBE MUST BE AT LEAST 60 FT. FROM OBSTACLES):

DIRECTION: NORTH TYPE OF OBSTRUCTION: Chain link fences, Cars, Trucks

HEIGHT: 8 ft DISTANCE FROM SAMPLER: 100 plus ft

DIRECTION: EAST TYPE OF OBSTRUCTION: Chain link Fences, Cars

HEIGHT: 8 ft DISTANCE FROM SAMPLER: 100 - 300 ft

DIRECTION: SOUTH TYPE OF OBSTRUCTION: Fence

HEIGHT: 12 ft DISTANCE FROM SAMPLER: 4 ft

DIRECTION: WEST TYPE OF OBSTRUCTION: Buildings Fence

HEIGHT: 12 - 25 ft DISTANCE FROM SAMPLER: @150 ft

(CONTINUED)

FORM IX

Ambient Air Sampling

Day 1

Site 1	Site 2	Site 3	Site 4A	Site 4B

Bag Sampler Checklists
Bag Purging/Inspection Checklists
Bag Historical Logs
Sampler Chain-of-Custody Records

Day 1

Site 1

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 1

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Partly Cloudy & Sunny
SAMPLER NUMBER: 344
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: Hewitt 70-1032-01 SAMPLER LOCATION: upwind 24 hr
BAG NUMBER: TG-11-HW RUN DATE: 11/9/88 PREPARED BY: T. Mercer

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 6 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. Vasquez DATE: 11-9-88
BAG VALVE OPEN: (yes) FLOW AT START: 6 cc
TIME (ACTUAL): 945 AM CLOCK (PST): 9:45 AM (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/10/88
BAG VALVE CLOSED: (yes) FLOW AT END: 6 cc
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 930 CLOCK (PST): 930 AM
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [ ] NO [✓] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: Ted FILED BY: ____

FORM 8A 7/24/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 1

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 10/13/88 START TIME: 850 COMPLETION TIME: 900

PROJECT NO.: 70-1032-01

TECHNICIAN: T. Mercer

BAG I.D. NO.: TB # 11-HW DATE IN SERVICE: 11/9/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-11-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	10/13/88	9:00	T. VASQUEZ	yes	344	2	70-1032-01	11/9/88	11/11/88	

DAY 1 SITE 1

FORM17 8/17/87

83168-3

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-11-HW	T. Mercer	10/13	9:00	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-11-HW	344	11/10	9:30					24 hr upwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. Mercer	13 Oct 88	9:00	[illegible]
[illegible]	11/10	12:35	[illegible]

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Susan Amantia	11/11/88	12:45	REMARKS * 3

LABORATORY NAME: E.R.T.

COMMENTS:

DAY 1 SITE 1

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2 1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-18-88

FORM 7A

Day 1

Site 2

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 2

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Partly Cloudy & Sunny
SAMPLER NUMBER: 424
PUMP NUMBER: [1] [2]
PROJECT / SITE: Hewitt 70-1032-01 SAMPLER LOCATION: downwind
BAG NUMBER: TB-12-HW RUN DATE: 11/9/88 PREPARED BY: T. Mercer

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 6"
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/9/88
BAG VALVE OPEN: [yes] FLOW AT START: 6"
TIME (ACTUAL): 930 AM CLOCK (PST): 930 AM (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/10/88
BAG VALVE CLOSED: [yes] FLOW AT END: 6"
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 940 CLOCK (PST): 940
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [ ] NO [X]
REVIEWED BY: Ted FILED BY: ____

FORM 8A 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 10/13/88 START TIME: 9:00 COMPLETION TIME: 9:05

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: TB-12-HW DATE IN SERVICE: 11-9-88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-12-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	10-13-88	9:05	T. VASQUEZ	YES	424	1	70-1032-01	11/9/88	11/11/88	

DAY 1 SITE 2

FORM17 3/17/87

83168-4

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	Hewitt

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-12-HW	T. MERCER	10/13	9:05	T. VASQUEZ

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 Oct 88	9:05	T. Vasq
T. Vasq	11/1	12/35	

FIELD SAMPLING RECORD

SAMPLE* CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-12-HW	424-1	11/10	940					24 HR downwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
				E.R.T.
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Susan Amando	11/1/88	12:45	REMARKS *	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-18-88

DAY 1 SITE 2

FORM 7A

Day 1

Site 3

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 3

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Partly Cloudy & Sunny
SAMPLER NUMBER: 341
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: HEWITT 70-1032-01 SAMPLER LOCATION: L24 hr drain
BAG NUMBER: TB-13-HW RUN DATE: 11/9/88 PREPARED BY: T. MERCER

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/9/88
BAG VALVE OPEN: (yes) FLOW AT START: 17 cc
TIME (ACTUAL): 1000 hrs CLOCK (PST): 1000 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/10/88
BAG VALVE CLOSED: (yes) FLOW AT END: 17 cc
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 955 CLOCK (PST): 955
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [ ] NO [X] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [illegible] FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 3

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 10/13/88 START TIME: 905 COMPLETION TIME: 907

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: TB-13-HW DATE IN SERVICE: 11/9/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-13-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	10-13-88	907	T VASQUEZ	yes	341	2	70-1032-01	11/9/88	11/11/88	

DAY 1 SITE 3

FORM17 3/17/87

83168-5

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-13-HW	T. MERCER	10/13	9:07	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-13-HW	341-2	11/10	9:55					<24 hr drain

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 OCT 88	9:07	T. Vasquez
T. Vasquez	11/11	12/36	[illegible]

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Susan Amantea	11/11/88	12:45	REMARKS* 2

LABORATORY NAME: E.R.T.

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2 1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-18-88

FORM7A

DAY 1 SITE 3

Day 1

Site 4A

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 4A

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Partly Cloudy & Sunny
SAMPLER NUMBER: 428
PUMP NUMBER: [(1)] [2]
PROJECT / SITE: 70-1032-01 - Hewitt SAMPLER LOCATION: <24 hr drain co/lo
BAG NUMBER: TB-14-HW RUN DATE: 11/9/88 PREPARED BY: T. MERCER

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/9/88
BAG VALVE OPEN: [yes] FLOW AT START: 17 cc
TIME (ACTUAL): 10:10 CLOCK (PST): 1010 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/10/88
BAG VALVE CLOSED: [yes] FLOW AT END: 17 cc
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 1005 CLOCK (PST): 1005
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [signature] FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 4A

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 10/13/88 START TIME: 907 COMPLETION TIME: 909

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: TB-14-HW DATE IN SERVICE: 11/9/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-14-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. MERCER	10-13-88	909	T. VASQUEZ	yes	428	1	70-1032-01	11/9/88	11/11/88	

DAY 1 SITE 4A

FORM 17 8/17/87

83168-6

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-14-HW	T. MERCER	10/13	9:09	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-14-HW	428-1	11/10	10/05					<24-hr. Collect'd
								PRIMARY

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	13 OCT 88	9:09	T. Vasq
T. Vasquez	11/11	12/36	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Luwu Amantia	11/10/88	12:45	REMARKS * 3

LABORATORY NAME: E.R.T.

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2 1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: fed DATE: 11-18-88

DAY 1 SITE 4A

FORM7A

Day 1

Site 4B

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 4B

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Partly Cloudy & Sunny
SAMPLER NUMBER: 428
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: Hewitt 20-1032-01 SAMPLER LOCATION: <24 hr co/lo
BAG NUMBER: TS-15-HW RUN DATE: 11/9/88 PREPARED BY: T. MERCER

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES _____ NO
FLOW SETTING: 12 cc
CHRONTROLLER PROGRAMMED ✓ YES _____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/9/88
BAG VALVE OPEN: [yes FLOW AT START: 12 cc
TIME (ACTUAL): 1020 CLOCK (PST): 1020 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES _____ NO
COMMENTS: _____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/10/88
BAG VALVE CLOSED: [yes FLOW AT END: 12 cc
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 1015 CLOCK (PST): 1015
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: Kel FILED BY: _____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 1
SITE 4B

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 10/13/88 START TIME: 909 COMPLETION TIME: 910

PROJECT NO.: 70-1032-01

TECHNICIAN: T. MERCER

BAG I.D. NO.: TB-15-HW DATE IN SERVICE: 11/9/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-15-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. Mercado	10/13/88	910	T. Vasquez	yes	428	2	70-1032-01	11/9/88	11/11/88	

DAY 1 SITE 4B

FORM 17 3/17/87

83168-7

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-15-HW	T. MERCER	10/13	9:10	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-15-HW	428-2	11/10	10/15					< 24-hr collect'd
								DUPLICATE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. MERCER	10/13/88	9:10	T. Vasquez
T. Vasquez	11/11	1236	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Susan Smoot	11/11/88	12:45	REMARKS * 3

LABORATORY NAME: T.R.T.

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-18-88

FORM7A

DAY 1 SITE 4B

Ambient Air Sampling

Day 2

Site 1	Site 2	Site 3	Site 4A	Site 4B

Bag Sampler Checklists
Bag Purging/Inspection Checklists
Bag Historical Logs
Sampler Chain-of-Custody Records

Day 2

Site 1

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 1

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 344
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: Hewitt 70-1032-01 SAMPLER LOCATION: upwind 24 hr
BAG NUMBER: TB-26-HW RUN DATE: 11/15/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 6"
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/15/88
BAG VALVE OPEN: [yes] FLOW AT START: 6"
TIME (ACTUAL): 950 CLOCK (PST): 950 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE CLOSED: [yes] FLOW AT END: 6"
BAG STATUS: FULL [ ] 3/4 FULL [✓] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 930 CLOCK (PST): 930
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [ ] NO [✓] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [signature] FILED BY: ____

FORM BA 7/24/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 1

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/88 START TIME: 9:00 COMPLETION TIME: 910

PROJECT NO.: 70-1032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-26-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: New

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: T-3-26-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/14/88	910	T. VASQUEZ	yes	944	2	70-0032-01	11/15/88	11/17/88	

DAY 2 SITE 1

FORM17 3/17/87

83228-S

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-26-HW	T. VASQUEZ	11/14/87	910	T. VASQUEZ

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. Vasquez	11/14	910	T. Vasquez
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-26-HW	344	11/16	930					24 hr upwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine C. Campbell	DATE 11/17/87	TIME 1504	REMARKS * 3

LABORATORY NAME: ERT

COMMENTS:

REVIEWED BY: [illegible] DATE: 11-29-88

DAY 2 SITE 1

FORM 7A

Day 2

Site 2

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/88 START TIME: 910 COMPLETION TIME: 920

PROJECT NO.: 70-1032-01

TECHNICIAN: T VASQUEZ

BAG I.D. NO.: TB-27-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: NEW

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: Yes

BAG VALVES TAGGED & SEALED (SHUT OFF): Yes

BAG STORED & CHECKLIST COMPLETED: Yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 2

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 424
PUMP NUMBER: [1] [2]
PROJECT / SITE: HEWITT L.F. SAMPLER LOCATION: 24 down wind
BAG NUMBER: T13-22-HW RUN DATE: 11/15/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 6 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/15/88
BAG VALVE OPEN: [yes] FLOW AT START: 6 cc
TIME (ACTUAL): 1000 CLOCK (PST): 1000 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE CLOSED: [yes] FLOW AT END: 6 cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 940 CLOCK (PST): 940
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [ ] NO [✓]
REVIEWED BY: LO FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/92 START TIME: 910 COMPLETION TIME: 920

PROJECT NO.: 70-1032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-27-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: NEW

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: Yes

BAG VALVES TAGGED & SEALED (SHUT OFF): Yes

BAG STORED & CHECKLIST COMPLETED: Yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB 27-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/14/87	920	T. VASQUEZ	yes	424	1	701032-01	11/15/87	11/17/88	

DAY 2 SITE 2

FORM17 3/17/87

83228-6

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER: 70-1032-01
PROJECT NAME: HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-27-HW	T. VASQUEZ	11/14/87	9:20	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-27-HW	424	11/16	940					24 hr downwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. VASQUEZ	11/14	920	T. VASQUEZ
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	CRT
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine C. Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

DAY 2 SITE 2

FORM 7A

Day 2

Site 3

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 3

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 341
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: 70-1032-01 HEWITT SAMPLER LOCATION: L24 drain
BAG NUMBER: TB-25-HW RUN DATE: 11/15/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/15/88
BAG VALVE OPEN: [yes FLOW AT START: 17 cc
TIME (ACTUAL): 10:07 CLOCK (PST): 10:07 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE CLOSED: [yes FLOW AT END: 17 cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 946 CLOCK (PST): 946
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: ~~YES~~ [ ] NO [✓] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [illegible] FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 3

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/88 START TIME: 920 COMPLETION TIME: 930

PROJECT NO.: 70-1032-01 HEWITT L.F

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-28-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: NEW

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-28-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/14/88	930	T. VASQUEZ	yes	341	2	70-103201	11/15/88	11/17/88	

DAY 2 SITE 3

FORM17 3/17/87

83228-7

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
701032-01	HEWITT L.F

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-28-HW	T. VASQUEZ	11/14/87	930	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-28-HW	341	11/16	946					L24 tr drain

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. VASQUEZ	11/14/87	930	T. VASQUEZ
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
				ERT
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	REMARKS *	
Kathrine C. Campbell	11/17/88	1504	3	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

DAY 2 SITE 3

FORM 7A

Day 2

Site 4A

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 4A

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 428
PUMP NUMBER: [1] [2]
PROJECT / SITE: 70-1032-01 HEWITT SAMPLER LOCATION: <24" drain c/o
BAG NUMBER: TB 29-MW RUN DATE: 11/15/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/15/88
BAG VALVE OPEN: [yes] FLOW AT START: 17 cc
TIME (ACTUAL): 1012 CLOCK (PST): 1012 (MUST BE WITHIN 3 MINUTES.
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS:

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE CLOSED: [yes] FLOW AT END: 17 cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 1005 CLOCK (PST): 1005
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: [illegible] FILED BY:

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 4A

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/88 START TIME: 930 COMPLETION TIME: 940

PROJECT NO.: 70-1032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-29-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: NEW

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-29-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/14/88	940	T. VASQUEZ	YES	428	1	70-1032-01	11/15/88	11/17/88	

DAY 2 SITE 4A

4C-75

DRH17 3/17/87

83227-8

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
707032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-29-HW	T.VASQUEZ	11/14	940	T.VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-29-HW	428-1	11/15	1005					<24 hr drain c/b
								PRIMARY

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T.VASQUEZ	11/14/88	940	[illegible]
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine L. Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

DAY 2 SITE 4A

FORM 7A

Day 2

Site 4B

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 4B

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 428
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: 70-1032-01 HEWIT SAMPLER LOCATION: L24 L.e co/Lo
BAG NUMBER: TB-30-HW RUN DATE: 11/15/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 12cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/15/88
BAG VALVE OPEN: [yes] FLOW AT START: 12cc
TIME (ACTUAL): 1016 CLOCK (PST): 1016 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE CLOSED: [yes] FLOW AT END: 12cc
BAG STATUS: FULL [ ] 3/4 FULL [ ] 1/2 FULL [✓] EMPTY [ ]
TIME (ACTUAL): 1010 CLOCK (PST): 1010
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: ____ FILED BY: ____

FORM BA 7/21/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 2
SITE 4B

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/14/88 START TIME: 940 COMPLETION TIME: 950

PROJECT NO.: 70-1032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: T3-30-HW DATE IN SERVICE: 11/15/88

VISUAL CONDITION OF BAG: new

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: yes

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-30-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/14/88	950	T. VASQUEZ	YES	428	2	70-1032-01	11/15/88	11/17/88	

DAY 2 SITE 4B

FORM 17 3/17/87

83223-9

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
701032-01	HEWITT LF.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-30-HW	T. VASQUEZ	11/14	950	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-30-HW	428-2	11/16	1010					< 24-hr. collect'd.
								DUPLICATE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. VASQUEZ	11/14/88	950	T. VASQUEZ
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	CRT.
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine C. Campbell	DATE 11/29/88	TIME 1504	REMARKS * 3	

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: [illegible] DATE: 11-29-88

FORM 7A

DAY 2 SITE 48

4C-81

Ambient Air Sampling

Day 3

Site 1	Site 2	Site 3	Site 4A	Site 4B

Bag Sampler Checklists
Bag Purging/Inspection Checklist
Bag Historical Logs
Sampler Chain-of-Custody Records

Day 3

Site 1

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 1

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny Clear

SAMPLER NUMBER: 344

PUMP NUMBER: [1] [2]

PROJECT / SITE: 70-1032-01 HEWITT L.F. SAMPLER LOCATION: 24 hr upwind

BAG NUMBER: TB-31-HW SAMPLE RUN DATE: 11/16/88 PREPARED BY: T VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO

FLOW SETTING: 6cc

CHRONTROLLER PROGRAMMED ✓ YES ____ NO

(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)

BAG INSTALLED BY: T VASQUEZ DATE: 11/16/88

BAG VALVE OPEN: [yes] FLOW AT START: 6cc

TIME (ACTUAL): 930 CLOCK (PST): 930 (MUST BE WITHIN 3 MINUTES)

SAMPLER LOCK SECURED ✓ YES ____ NO

COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: Tony Vasquez DATE: 11/17/88

BAG VALVE CLOSED: [yes] FLOW AT END: 6cc

BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]

TIME (ACTUAL): 925 CLOCK (PST): 925

SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)

SIDE 1 WORKING: YES [ ] NO [✓] SIDE 2 WORKING: YES [✓] NO [ ]

REVIEWED BY: [illegible] FILED BY: ____

FORM BA 7/24/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 1

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/15/88 START TIME: 1350 COMPLETION TIME: 1400

PROJECT NO.: 704032-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-31-HW1 DATE IN SERVICE: 11/16/88

VISUAL CONDITION OF BAS: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB-31-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T VASQUEZ	11/15/88	1400	T. VASQUEZ	YES	344	2	70-1032-01	11/16/88	11/17/88	

DAY 3 SITE 1

FORM17 3/17/87

73223-10

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-31-HW	T. VASQUEZ	11/15	1400	T. VASQUEZ

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-31-HW	344	11/17	925					24 ~~ft~~ Upwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. VASQUEZ	11/15	1400	T. VASQUEZ
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine P Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3

LABORATORY NAME: ERT.

COMMENTS:

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

REVIEWED BY: Ted DATE: 11-29-88

DAY 3 SITE 1

FORM 7A

Day 3

Site 2

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 2

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 424
PUMP NUMBER: [(1)] [2]
PROJECT / SITE: 70-1032-01 HEWITT L.F. SAMPLER LOCATION: 24 hr downwind
BAG NUMBER: TB-#32-HW RUN DATE: 11/16/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 6 cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: Tony Vasquez DATE: 11/16/88
BAG VALVE OPEN: [yes] FLOW AT START: 6 cc
TIME (ACTUAL): 940 CLOCK (PST): 940 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS: ____

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER, OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/17/88
BAG VALVE CLOSED: [yes] FLOW AT END: 6 cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 930 CLOCK (PST): 930
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [✓] NO [ ] SIDE 2 WORKING: YES [ ] NO [ ]
REVIEWED BY: ____ FILED BY: ____

FORM BA 7/24/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 2

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/15/87 START TIME: 1400 COMPLETION TIME: 1410

PROJECT NO.: 701031-01

TECHNICIAN: T. VASQUEZ

BAG I.D. NO.: TB-32-HW DATE IN SERVICE: 11/16/87

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): yes

BAG STORED & CHECKLIST COMPLETED: yes

PROBLEMS/COMMENTS:

FORM 4

MANDEVILLE & ASSOCIATES
environmental engineering services

TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TG-32-HW

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/15/88	1410	T. VASQUEZ	YES	424	1	70-103201	11/16/88	11/17/88	

DAY 3 SITE 2

FORM17 3/17/87

T3228-11

MANDEVILLE & ASSOCIATES
environmental engineering services

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
70-1032-01	HEWITT L.F.

SAMPLE CONTAINER PREPARATION

SAMPLE CONTAINER	PREPARED BY	DATE	TIME	ISSUED TO
TB-32-HW	T. VASQUEZ	11/15	1410	T. VASQUEZ

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
T. Vasquez	11/15	1410	T. Vasquez
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

* NOTE: EMPTY = E EMPTY-1/4 = 1 1/4-1/2 = 2
1/2-3/4 = 3 3/4-FULL = 4 OVER FULL = 0

FIELD SAMPLING RECORD

SAMPLER CONTAINER	SAMPLER NO.	DATE	TIME	CONDITION IN LAB*	FIELD TESTING			SAMPLER LOCATION
TB-32-HW	424	11/17	930					24 hr downwind

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY NAME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	ERT
SAMPLE DISPOSAL METHOD: (SIGNATURE)	DATE	TIME	DISPOSED OF BY: (SIGNATURE)	COMMENTS:
RECEIVED FOR LABORATORY BY: (SIGNATURE) Katherine P Campbell	DATE 11/17/88	TIME 1504	REMARKS * 3	

REVIEWED BY: ted DATE: 11-29-88

DAY 3 SITE 2

FORM 7

Day 3

Site 3

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 3

* PRIOR TO COMPLETION OF THIS FORM ENSURE THAT THE *
* SITE DESCRIPTION FORM HAS BEEN COMPLETED AND *
* LOCATION CRITERIA HAVE BEEN MET. *

BAG SAMPLER CHECKLIST

WEATHER CONDITIONS: Sunny & Clear
SAMPLER NUMBER: 341
PUMP NUMBER: [1] [(2)]
PROJECT / SITE: 70-1032-01 HEWITT LE SAMPLER LOCATION: <24 LR drain
BAG NUMBER: TB-33-HW RUN DATE: 11/16/88 PREPARED BY: T. VASQUEZ

* * * * * * * * * * * * * *

PRE BAG INSTALLATION CHECK

LEAK CHECK PERFORMED: ✓ YES ____ NO
FLOW SETTING: 17cc
CHRONTROLLER PROGRAMMED ✓ YES ____ NO
(MUST BE WITHIN 3 THRU -6 MINOR GRADUATIONS FOR 3 MIN.)
BAG INSTALLED BY: T. VASQUEZ DATE: 11/16/88
BAG VALVE OPEN: [✓] FLOW AT START: 17cc
TIME (ACTUAL): 946 CLOCK (PST): 946 (MUST BE WITHIN 3 MINUTES)
SAMPLER LOCK SECURED ✓ YES ____ NO
COMMENTS:

* * * * * * * * * * * * * *

LEAVE SHEET IN BAG AT SAMPLER DURING RUN. IF THERE ARE ANY PROBLEMS AT SITE MAKE NOTE IN COMMENTS AND CALL MANDEVILLE & ASSOC. AT (818) 369-2224

* * * * * * * * * * * * * *

BAG REMOVAL

NOTE: DO NOT ATTEMPT TO FIX SAMPLER OR ADJUST CLOCK !!!

BAG REMOVED BY: T. VASQUEZ DATE: 11/17/88
BAG VALVE CLOSED: [Yes] FLOW AT END: 17cc
BAG STATUS: FULL [✓] 3/4 FULL [ ] 1/2 FULL [ ] EMPTY [ ]
TIME (ACTUAL): 935 CLOCK (PST): 935
SAMPLER STATUS (WORKING SIDE): WORKING [✓] NOT WORKING [ ]
(SPECIFY IN COMMENTS)
SIDE 1 WORKING: YES [ ] NO [✓] SIDE 2 WORKING: YES [✓] NO [ ]
REVIEWED BY: Ted FILED BY: ____

FORM BA 7/24/87

MANDEVILLE & ASSOCIATES
environmental engineering services

DAY 3
SITE 3

TEDLAR BAG PURGING/INSPECTION CHECKLIST

DATE: 11/15/88 START TIME: 1410 COMPLETION TIME: 1420

PROJECT NO.: 70-1032-01

TECHNICIAN: TUASQUEZ

BAG I.D. NO.: TB-33-HW DATE IN SERVICE: 11/16/88

VISUAL CONDITION OF BAG: good

BAG LEAK TEST: PASS [✓] FAIL [ ]

BAG FILLED & EMPTIED 3 TIMES WITH NITROGEN: YES

BAG VALVES TAGGED & SEALED (SHUT OFF): YES

BAG STORED & CHECKLIST COMPLETED: YES

PROBLEMS/COMMENTS:

FORM 1

MANDEVILLE & ASSOCIATES
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TEDLAR BAG HISTORICAL LOG

BAG NUMBER: TB 33-HKI

BAG PREPARATION					FIELD RECORD				LABORATORY	
PREPARED BY	DATE	TIME	ISSUED TO	PURGING/INSPECTION CHECKLIST COMPLETED	SAMPLER NUMBER	PUMP NUMBER	PROJECT NUMBER	DATE OF USE	DATE SUBMITTED TO LAB	DATE RETURNED FROM LAB
T. VASQUEZ	11/15/88	1420	T. VASQUEZ	YES	341	2	70 1032-01	11/16/88	11/17/88	

DAY 3 SITE 3

DRH17 3/17/87

(Not applicable to this SWAT)

ENTRY AGREEMENT FOR THE FORMER HEWITT AND CALMAT INERT LANDFILL SITES

1. The United States Environmental Protection Agency, by letter dated August 3, 1995, has stated its intention to enter and conduct site observation and testing at the former Hewitt Landfill and the CalMat Inert Landfill pursuant to 42 USC §9604 ("the sampling event"). The EPA may conduct its inspection through CH2M Hill or other companies or individuals in addition to EPA employees (collectively hereafter "EPA" and its agents). CalMat Co. (CalMat) has agreed to allow the EPA to enter the property and conduct testing as required by law.

2. The EPA has provided a summary of its work plan to CalMat. The EPA will provide a copy of its full work plan to CalMat's counsel, Gibbs, Giden, Locher & Acret, at least two working days prior to its initial entry onto the sites.

3. The EPA will give counsel for CalMat, Gibbs, Giden, Locher & Acret, two working days notice prior to any entry onto the sites including the specific time EPA and its agents will enter the site and the expected duration of the site visit (if reasonably known).

4. EPA and its agents recognize and acknowledge they are entering into an operating industrial autowrecking yard and

SERIAL #	WELL #	DATE	AL MINERAL(ppm) B	TDS	COD	TOC	ORGANICS (ppb) TCE	PCE	1,2DCA	TRACE ELEMENTS (ppm) Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
		mean	0.1	286.6	7.8	2.2	3.5	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.1	0.7
		std dev	0.1	100.1	12.3	5.7	10.1	3.0	1.4	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.6	0.0	0.0	0.4	5.3
		coef of v	1.0	0.3	1.6	2.6	2.9	1.4	2.6	ERR	4.6	ERR	3.5	7.5	4.8	ERR	4.0	3.4	2.3	4.7	8.0

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
		mean	760.0	515.3	19.0	7.3	446	19.5	178.9	453	7.7	56.7	15.0	27.5	4.7	2.1	210.6	40.6	18.3	5.5	0.5
		std dev	306.8	276.8	2.2	0.7	137	25.1	59.4	153	0.5	27.1	3.5	4.7	4.7	6.2	68.7	21.1	6.4	8.8	0.3
		coef of v	0.4	0.5	0.1	0.1	0.3	1.3	0.3	0.3	0.1	0.5	0.2	0.2	1.0	3.0	0.3	0.5	0.3	1.6	0.6

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
173	4916 D	27-Nov-84		300	14.0																
174	4916 D	26-Dec-84									<0.06		<0.0002	<0.08	17.0	<0.001	0.5			<0.005	<0.022
175	4916 D	16-Jan-85		310	<3																
176	4916 D	14-Feb-85																			
177	4916 D	14-Mar-85		260	11.0																
178	4916 D	15-May-85																			
179	4916 D	17-Jul-85												<0.035	<0.042		0.2				0.0
180	4916 D	25-Sep-85		200	<3		<1	1.0	<1					<.031	<0.037		<0.019				<0.0085
181	4916 D	20-Nov-85		360	3.8									<0.033	<0.063		<0.029				<0.076
182	4916 D	17-Jan-86		360	8.0																
183	4916 D	27-Feb-86												<0.02	<0.2		3.8				<0.04
184	4916 D	13-May-86	0.16	330.0	4.0	<3	<1	2.0						<0.02	<0.2		0.1				0.0
185	4916 D	15-Aug-86		350.0	6.0	<3	<1	4.0	1.0					<0.03	<0.03	<0.0005	<0.003	<0.02	<0.06	<0.02	<0.08
186	4916 D	09-Jan-87		330.0	5.0	<3	<1	<1	1.0		0.0	<0.02	<0.01	<0.02	<0.02		<0.005	<0.2	<0.04	2.0	<0.03
187	4916 D	09-Apr-87		310.0		<3	<1	1.0	<1	<0.1	<0.01	<1	<0.02	<0.008	<0.110		<0.0049	<0.001			0.0
188	4916 D	29-May-87		350		4.3		10.3						0.016	0.240		0.016	0.0014			0.1
189	4916 D	26-Aug-87		350		1.5		<4.1						<0.013	<0.170		<0.0052	0.0069			0.0
190	4916 D	20-Nov-87		350		7.1		<4.1													
191																					
192	4926	04-Sep-53	0.00	332																	
193	4926	18-Sep-59	0.10	326																	
194	4926	02-Dec-64		294																	
195	4926	05-Apr-74	ND	415																	
196	4926	21-Jul-80	0.38	470																	
197	4926	08-Oct-80	0.22	500																	
198	4926	21-Jul-80																			
199	4926	08-Oct-80																			
200	4926	04-Mar-81																			
201	4926	08-Jun-81		500	3.0																
202	4926	09-Oct-81																			
203	4926	22-Dec-81																			
204	4926	19-Feb-82																			
205	4926	14-Apr-82																			
206	4926	16-Jun-82																			
207	4926	17-Aug-82	—	330																	
208	4926	14-Oct-82																			
209	4926	16-Dec-82																			
210	4926	21-Jan-83	0.31	361																	
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	0.4	500.0	70.0	36.5	50.0	10.3	8.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	3.8	0.0	0.1	2.0	44.0
		minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
173	4916 D	27-Nov-84		665.3						540											
174	4916 D	26-Dec-84		664.2																	
175	4916 D	16-Jan-85	882.0	662.5	16	6.7	490	15	247	500	7.4	63	17	27	6	0	310	27	16	<0.44	
176	4916 D	14-Feb-85	882.0	665.1																	
177	4916 D	14-Mar-85	882.0	669.5	18	7.5	500	17	220	610											
178	4916 D	15-May-85			17	6.9	400	4	188												
179	4916 D	17-Jul-85			21	5.4	540	7	176												
180	4916 D	25-Sep-85			18	7.4	390	10	195	400	7.9	51	8	15	3	0	200	26	18	1.7	
181	4916 D	20-Nov-85			16	7.5	620	20	230	570	7.1	120	17	29	5	0	260	27	26	<4.43	
182	4916 D	17-Jan-86			17	5.5	560	18	218	590	7.1	107	19	26	5	0	290	24	16	8.40	
183	4916 D	27-Feb-86			18	7.0	590	38	252												
184	4916 D	13-May-86	882.9	663.9						470.0	7.4	91.0	15.0	23.0	3.8	0.0	243.8	23.0	13.0	<4	0.4
185	4916 D	15-Aug-86	882.9	664.6	19.0	6.6	380.0	30.0	218.0	600.0	7.4	62.0	21.0	26.5	3.4	0.0	207.3	21.0	20.5	3.6	
186	4916 D	09-Jan-87			16.0	6.5	500.0	15.5	190.0	550.0	7.5	85.0	18.0	26.0	4.0	<12	240.0	48.0	18.0	7.6	
187	4916 D	09-Apr-87	882.9	647.7	20.0	5.8	480.0	17.0	190.0	510.0	7.1	64.0	18.0	24.0	4.5	<0.6	230.0	49.0	17.0	7.4	
188	4916 D	29-May-87			19	7.0	475		190			64	17	32	5		190	57	24	0.9	
189	4916 D	26-Aug-87			21	6.7	480		210			60	17	30	4		210	48	18	1.7	
190	4916 D	20-Nov-87		639.1	18	7.7	405		210			66	19	27	4		210	54	22	1.6	
191										584	7.4	68	16	28	4		264	56	16	13.00	0.60
192	4926	04-Sep-53								540	7.4	66	16	23	3		250	49	12	12.00	0.50
193	4926	18-Sep-59								551	7.8	58	16	24	4		179	69	34	0.00	
194	4926	02-Dec-64								530	7.2	68	16	30	4		256	51	25	8.70	0.40
195	4926	05-Apr-74								430	7.3			36			360	46	27	0.80	0.30
196	4926	21-Jul-80	890.3?	693.4						720				37			445	57	26	1.80	0.30
197	4926	08-Oct-80	890.3?	694.0																	
198	4926	21-Jul-80				7.3	770	62													
199	4926	08-Oct-80			18	7.0	865	77	366												
200	4926	04-Mar-81			20	7.3	850	74	300												
201	4926	08-Jun-81			23	6.6	720	65	345	770	7.4										
202	4926	09-Oct-81			22	7.1	520	24	230												
203	4926	22-Dec-81			21	7.5	590	40	205												
204	4926	19-Feb-82			22	7.9	370	11	176												
205	4926	14-Apr-82			19	7.7	510	19	217												
206	4926	16-Jun-82			24	7.2	510	21	224												
207	4926	17-Aug-82			22	8.0	330	41	220	500	8.0	64	17	28	3	4	268	44	14	1.05	0.20
208	4926	14-Oct-82			21	7.4	500	40	207												
209	4926	16-Dec-82			19	7.3	500	31	268												
210	4926	21-Jan-83	880.0	646.6	19	7.6	500	45	275	570	7.3	69	17	27	6	0	274	58	13	1.65*	0.46
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	950.0	782.0	25.0	9.6	865	225.0	366.0	770	9.2	120.0	21.0	42.0	40.0	37.0	445.0	130.0	40.0	79.0	1.5
		minimum	0.0	0.0	12.0	5.2	175	0.0	38.0	0	6.8	0.0	3.5	4.2	1.5	0.0	0.0	0.0	0.6	0.0	0.0

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
130	4916 A	09-Apr-87		330.0		<3	1.0	3.0	1.0	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
131	4916 A	29-May-87		420		15.0								0.0094			0.011	<0.005			0.020
132	4916 A	26-Aug-87		340		2.4								<0.008			<0.0035	<0.005			0.029
133	4916 A	20-Nov-87		340		2.3								<0.013			<0.0052	0.0082			<0.020
134																					
135	4916 B	04-Jan-56	0.17	361																	
136	4916 B	03-Dec-62		313																	
137	4916 B	02-Dec-64		282																	
138	4916 B	09-Aug-66		271																	
139	4916 B	03-Oct-66	0.00	331																	
140	4916 B	03-Apr-84			22.1	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0	0.0	0.1	<0.001	<.05	<0.01	0.1	<0.005	<0.05
141	4916 B	03-Apr-84				(B&C)	0.0	0.0	0.0												
142	4916 B	05-Sep-84				(rwqcb	0.0	0.0	0.0												
143	4916 B	05-Sep-84				(B&C)	0.0	0.0	0.0												
144	4916 B	25-Sep-85		320.0	<3		<1	1.0	<1					<0.035	<0.042		<0.022				0.0
145	4916 B	20-Nov-85		310	7.6									<.031	<0.037		<0.019				<0.0085
146	4916 B	13-May-86	0.16	300.0	4.0	<3	<1	<1						<0.02	<0.2		<0.01				0.1
147	4916 B	15-Aug-86		320.0	4.0	<3	<1	3.0	1.0					<0.02	<0.2		<0.01				<0.04
148	4916 B	09-Jan-87		320.0	10.0	<3	6.0	<1	3.0		<0.01	<0.02	0.0	<0.03	<0.03	<0.0005	0.0	<0.02	<0.06	<0.02	<0.08
149																					
150	4916 C	13-May-86	0.22	300.0	4.0	<3		8.0						<0.02	<0.2		<0.01				<0.04
151	4916 C	15-Aug-86		300.0	4.0	<3	<1	7.0	<1					<0.02	<0.2		<0.01				<0.04
152	4916 C	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
153	4916 C	09-Jan-87		330.0			<1	5.0	<1					<0.03	<0.03		<0.004				<0.08
154	4916 C	09-Apr-87		330.0		<3	<1	10.0	<1	<0.1	<0.01	<1	<0.02	<0.02	0.2		<0.005	<0.2	<0.04	<1	<0.03
155	4916 C	29-May-87		310		36.5		<4.1										<0.005			<0.020
156	4916 C	26-Aug-87		370		1.8		9.1										<0.005			0.043
157	4916 C	20-Nov-87		380		1.9		9.0										0.0074			0.027
158																					
159	4916 D	21-Mar-83		340	20.0																
160	4916 D	16-May-83		282	7.0																
161	4916 D	15-Jul-83		210	22.0																
162	4916 D	16-Sep-83									<0.04		<0.02	<0.06	<0.07	<0.001	0.18	<0.12		<0.012	<0.01
163	4916 D	18-Jan-84	<1	210	9.0																
164	4916 D	14-Mar-84		190	28.0																
165	4916 D	03-Apr-84		245.0	2.4	(rwqcb	0.0	0.6	0.0	<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	0.1	<0.005	<0.05
166	4916 D	03-Apr-84				(B&C)	1.0	2.0	8.0												
167	4916 D	22-May-84		210	<5									<0.061	<0.09		0.2				<0.019
168	4916 D	18-Jul-84		230	<3																
169	4916 D	05-Sep-84				(rwqcb	0.0	1.9	1.7												
170	4916 D	05-Sep-84				(B&C)	0.0	2.0	0.0												
171	4916 D	13-Sep-84		280	<3																
172	4916 D	17-Oct-84																			

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
130	4916 A	09-Apr-87	870.1		18.0	6.5	520.0	225.0	211.0	560.0	7.3	68.0	18.0	27.0	4.7	<0.6	270.0	48.0	17.0	8.0	
131	4916 A	29-May-87			18	6.9	490		150			78	20	30	4		150	100	35	2.4	
132	4916 A	26-Aug-87			18	6.8	440		210			58	17	28	4		210	46	15	1.7	
133	4916 A	20-Nov-87			17	7.7	390		200			62	18	26	4		200	69	20	1.6	
134																					
135	4916 B	04-Jan-58	8907?							598	8.2	64	21	36	4		272	76	12	3.70	0.30
136	4916 B	03-Dec-62								547	8.3	61	18	31			244	47	26	10.00	
137	4916 B	02-Dec-64								522	8.4	58	16	24	4		244	44	16		
138	4916 B	09-Aug-66								373	8.2	24	6	42	4		144	26	25	0.00	0.72
139	4916 B	03-Oct-66								644	8.0	63	17	34	3		227	78	34	0.40	
140	4916 B	03-Apr-84																			
141	4916 B	03-Apr-84																			
142	4916 B	05-Sep-84																			
143	4916 B	05-Sep-84																			
144	4916 B	25-Sep-85								480.0	8.3	110.0	11.0	16.0	3.3	0.0	230.0	51.0	14.0	4.4	
145	4916 B	20-Nov-85								510	7.6	110	15	24	5	0	240	25	22	12.0	
146	4916 B	13-May-86	712.2	681.9	17.0	7.8	460.0	12.5	184.0	460.0	7.8	84.0	14.0	21.0	3.8	0.0	243.8	20.0	14.0	7.0	0.4
147	4916 B	15-Aug-86	712.2		18.0	6.2	360.0	8.8	190.0	560.0	7.7	54.0	17.0	24.0	3.2	0.0	243.8	21.0	14.0	7.1	
148	4916 B	09-Jan-87	712.2		15.0	6.4	460.0	11.5	186.0	500.0	7.4	79.0	17.0	25.0	4.4	<12	240.0	42.0	12.0	8.1	
149																					
150	4916 C	13-May-86	895.0		19.0	8.0	460.0	7.0	162.0	450.0	7.9	71.0	11.0	25.0	4.0	0.0	207.3	26.0	14.0	12.0	1.5
151	4916 C	15-Aug-86			18.0	6.6	330.0	4.4	168.0	520.0	7.5	51.0	15.0	28.0	3.1	0.0	219.5	23.0	15.0	11.0	
152	4916 C	20-Nov-86			19.0	7.4	410.0	2.3	162.0												
153	4916 C	09-Jan-87								540.0	7.8	84.0	16.0	30.0	4.1	<12	230.0	57.0	18.0	18.0	
154	4916 C	09-Apr-87			19.0	6.8	420.0	7.0	165.0	560.0	7.6	68.0	17.0	31.0	4.7	<0.6	220.0	61.0	21.0	21.0	
155	4916 C	29-May-87				7.3	510		200			65	17	27	4		200	44	18	1.4	
156	4916 C	26-Aug-87			19	7.2	500		190			62	16	32	4		190	67	25	3.8	
157	4916 C	20-Nov-87			18	7.6	443		170			65	17	31	4		170	82	32	4.5	
158																					
159	4916 D	21-Mar-83		667.2	17	7.2	480	48	200	500	7.6	54	15	34	6	0	280	48	15	0.82	
160	4916 D	16-May-83			21	7.2	480	42	193	535											
161	4916 D	15-Jul-83		691.2	24	8.6	325	17	105	360	8.3	22	13	26	2	0	160	42	12	1.00	
162	4916 D	16-Sep-83			21	7.7	330	12	97												
163	4916 D	18-Jan-84			21	7.1	388	3	145	410	8.1	35	13	27	4	0	210	27	15	3.40	
164	4916 D	14-Mar-84			19	7.7	335	0	170	380											
165	4916 D	03-Apr-84									8.3	30.0	16.0	28.0	5.0	0.0	162.0	19.0	14.0	0.1	0.5
166	4916 D	03-Apr-84																			
167	4916 D	22-May-84			21	8.1	360	3	176	210	8.2										
168	4916 D	18-Jul-84			24			9	192	390	7.7	43	12	32	4	0	200	12	12	<0.1	
169	4916 D	05-Sep-84																			
170	4916 D	05-Sep-84																			
171	4916 D	13-Sep-84			24			63	220	500			15								
172	4916 D	17-Oct-84		667.6																	

			AL MINERAL(ppm)				ORGANICS (ppb)				TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
87																					
88	4916 A	09-Aug-66		482																	
89	4916 A	21-Sep-70		346																	
90	4916 A	08-Oct-71	ND	337																	
91	4916 A	22-Feb-73	ND	360																	
92	4916 A	04-Apr-74	0.34	386																	
93	4916 A	21-Jul-80	0.37	390																	
94	4916 A	08-Oct-80	0.20	380																	
95	4916 A	04-Mar-81																			
96	4916 A	08-Jun-81		370	<3																
97	4916 A	09-Oct-81																			
98	4916 A	14-Apr-82																			
99	4916 A	10-Jun-82																			
100	4916 A	17-Aug-82	—	340																	
101	4916 A	14-Oct-82																			
102	4916 A	16-Dec-82																			
103	4916 A	21-Jan-83	0.26	351	<5																
104	4916 A	15-Jul-83		340	59.0																
105	4916 A	16-Sep-83									<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	<0.01
106	4916 A	18-Jan-84	<0.1	330	<5																
107	4916 A	14-Mar-84		340	<5						<0.001	<0.005	<0.001	<0.01	<.1	<0.001	2.7	<0.01	0.0	<0.005	<0.05
108	4916 A	03-Apr-84				4.9	(rwqcb	0.7	4.6	0.9	<0.5										
109	4916 A	03-Apr-84					(B&C)	0.0	0.0	0.0											
110	4916 A	22-May-84		340	<5									<0.061	<0.09		<0.038				<0.019
111	4916 A	18-Jul-84		170	<3																
112	4916 A	13-Sep-84		350	<3																
113	4916 A	24-Sep-84					(B&C)	1.0	6.0	0.0											
114	4916 A	24-Sep-84					(rwqcb	1.1	4.0	0.8											
115	4916 A	17-Oct-84																			
116	4916 A	27-Nov-84		340	20.0																
117	4916 A	26-Dec-84									<0.06		<0.0002	<0.08	0.1	<0.001	<0.05			<0.005	<0.022
118	4916 A	16-Jan-85	0.17	380	<3																
119	4916 A	14-Mar-85		430	4.0																
120	4916 A	15-May-85																			
121	4916 A	17-Jul-85												<0.035	<0.042		<0.022				0.1
122	4916 A	25-Sep-85		330	<3		<1		3.0	<1				<.031	<0.037		<0.019				<0.0085
123	4916 A	20-Nov-85		290	3.8									<0.033	<0.083		<0.029				<0.076
124	4916 A	17-Jan-86		280	4.0																
125	4916 A	27-Feb-86												<0.02	<0.2		<0.01				<0.04
126	4916 A	13-May-86	0.15	320.0	4.0	<3	<1		1.0					<0.02	<0.2		<0.01				<0.04
127	4916 A	15-Aug-86		320.0	4.0	<3	<1		3.0	<1				<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
128	4916 A	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.03	<0.03		<0.004				<0.08
129	4916 A	09-Jan-87		330.0				1.0	<1	2.0											

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
87																					
88	4916 A	09-Aug-66								596	7.8	58	20	31	3		260	52	26	2.20	0.62
89	4916 A	21-Sep-70								439	7.3	48	11	25	4		194	45	13	6.00	1.00
90	4916 A	08-Oct-71								432	8.2	50	13	29	4		207	47	18	4.20	0.61
91	4916 A	22-Feb-73								465	7.4	52	16	25	3		207	60	23	5.00	
92	4916 A	04-Apr-74								500	7.6	66	12	31	4		204	77	23	5.00	0.52
93	4916 A	21-Jul-80				6.8	630	28		380	6.8			35			280	37	27	5.80	0.40
94	4916 A	08-Oct-80			16	7.4	670	26	167	600				35			284	46	1	2.70	0.50
95	4916 A	04-Mar-81			18	7.6	800	11	242												
96	4916 A	08-Jun-81			19	7.3	570	36	236	540	7.3										
97	4916 A	09-Oct-81			19	7.3	530	29	238												
98	4916 A	14-Apr-82			17	7.4	540	22	230												
99	4916 A	10-Jun-82			18	7.3	550	23	241												
100	4916 A	17-Aug-82			18	7.3	490	38	230	550	7.9	69	18	29	4	5	278	42	15	3.39	0.21
101	4916 A	14-Oct-82			20	7.1	500	48	220												
102	4916 A	16-Dec-82			17	7.4	500	46	263												
103	4916 A	21-Jan-83	870.1		17	7	500	43	264	540	7.3	64	16	27	5	0	270	53	13	1.60*	0.44
104	4916 A	15-Jul-83			19	7	480	31	245	530	8.2	71	17	28	2		280	46	14	8.00	
105	4916 A	16-Sep-83			19	6.8	450	40	183												
106	4916 A	18-Jan-84			18	6.8	515	23	185	560	7.9	68	17	27	4	0	250	55	16	6.30	
107	4916 A	14-Mar-84			19	7.7	335	0	170	570											
108	4916 A	03-Apr-84																			
109	4916 A	03-Apr-84																			
110	4916 A	22-May-84			17	7.0	540	27	229	540	8.0										
111	4916 A	18-Jul-84			23			28	208	530	7.2	66	16	4	32	0	250	41	13	6.2	
112	4916 A	13-Sep-84			21			20	232	600			17								
113	4916 A	24-Sep-84																			
114	4916 A	24-Sep-84																			
115	4916 A	17-Oct-84		PUMPING																	
116	4916 A	27-Nov-84		PUMPING						580											
117	4916 A	26-Dec-84		PUMPING																	
118	4916 A	16-Jan-85			16	6.5	500	12	205	540	7.5	67	19	28	3	0	320	51	13	7.2	
119	4916 A	14-Mar-85			17	7.2	540	13	191	740											
120	4916 A	15-May-85			18	6.2	530	14	196												
121	4916 A	17-Jul-85			19	7.4	700	13	200												
122	4916 A	25-Sep-85			18	7.2	520	7	228	510	8.0	91	12	17	3	0	240	51	14	9.6	
123	4916 A	20-Nov-85			16	7.6	540	15	182	290	7.3	110	16	26	4	0	240	25	23	8.4	
124	4916 A	17-Jan-86			17	7.6	530	8	162	510	7.4	100	15	24	4	0	240	22	10	8.40	
125	4916 A	27-Feb-86			18	6.2	500	21	216												
126	4916 A	13-May-86	870.1							470.0	7.4	100.0	14.0	22.0	4.1	0.0	256.0	18.0	11.5	7.0	0.5
127	4916 A	15-Aug-86			20.0	5.2	395.0	9.6	182.0	570.0	7.3	32.0	17.0	28.0	3.2	0.0	256.0	19.0	15.0	7.7	
128	4916 A	20-Nov-86	870.1	635.9	18.0	7.0	420.0	11.3	194.0												
129	4916 A	09-Jan-87	870.1	638.1						540.0	7.3	87.0	19.0	24.0	4.4	<12	260.0	48.0	15.0	9.9	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
44	4915 A	21-Mar-83		140																	
45	4915 A	16-May-83																			
46	4915 A	15-Jul-83		100																	
47	4915 A	16-Sep-83									<0.04		<0.02	<0.06	<0.07	<0.001	0.05	<0.12		<0.012	<0.01
48	4915 A	18-Jan-84	<1	120	17.0																
49	4915 A	14-Mar-84		150	<5					<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	<0.01	<0.005	<0.05
50	4915 A	03-Apr-84		198.0	9.8	(rwqcb	0.0	0.0	0.0												
51	4915 A	03-Apr-84				(B&C)	0.0	0.0	0.0												
52	4915 A	22-May-84		220	<5									<0.061	<0.09		0.1				<0.019
53	4915 A	18-Jul-84		170	28.0																
54	4915 A	05-Sep-84				(rwqcb)	0.0	0.0	0.0												
55	4915 A	05-Sep-84				(B&C)	0.0	0.0	0.0												
56	4915 A	13-Sep-84		160	<3																
57	4915 A	17-Oct-84																			
58	4915 A	27-Nov-84		130	<5																
59	4915 A	26-Dec-84																			
60	4915 A	16-Jan-85		180	7.3																
61	4915 A	15-Feb-85																			
62	4915 A	14-Mar-85		150	29.0																
63	4915 A	15-May-85																			
64	4915 A	17-Jul-85												<0.035	<0.042		0.1				0.0
65	4915 A	25-Sep-85		120	<3		<1	<1	<1					<.031	<0.037		<0.019				<0.0085
66	4915 A	20-Nov-85		300	15.0									<0.033	<0.063		0.20				<0.076
67	4915A	17-Jan-86		240	<3																
68	4915 A	27-Feb-86												<0.02	<0.2		0.1				<0.04
69	4915 A	13-May-86	<0.10	200.0	4.0	<3	32.0	<1						<0.02	<0.2		0.1				<0.04
70	4915 A	15-Aug-86		180.0	70.0	16.0	40.0	<1	<1		<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
71	4915 A	20-Nov-86			15.0	<3								<0.03	<0.03		0.1				<0.08
72	4915 A	09-Jan-87		180.0			8.0	<1	<1					<0.02	1.1		0.2				<0.03
73	4915 A	09-Apr-87		170.0		<3	10.0	<1	<1	<0.1	<0.01	<1	<0.02		<0.110		<0.0049	<0.005			<0.020
74	4915 A	29-May-87		320		4.2	<1.9						<0.001		3.7		0.1	0.0			0.0
75	4915 A	26-Aug-87		280		2.3	50.0						0.0015		<0.170		0.0				<0.020
76	4915 A	20-Nov-87		200		5.7	11.1						<0.001								
77															<0.110		<0.0049				44.0
78	4915 B	29-May-87		340		1.1									5.2		0.1				<0.020
79	4915 B	26-Aug-87		490		2.3									<0.170		0.0				<0.020
80	4915 B	20-Nov-87		320		2.1															
81																					
82	4916	13-Dec-77																			
83	4916	09-Apr-87		320.0		<3	<1	3.0	<1	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
84	4916	29-May-87				6.0	6.5							<0.008			0.100	<0.005			<0.020
85	4916	26-Aug-87				2.0	<1.9							0.025			<0.0035	0.013			0.034
86	4916	20-Nov-87				7.4	<1.9							<0.013			<0.0052	0.009			<0.020

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
44	4915 A	21-Mar-83		707.8	17	8.0	195	0		230	9.2	7	5	29	6	20	28	24	12	<0.1	
45	4915 A	16-May-83			21	9.6	175	0	42												
46	4915 A	15-Jul-83			23	9.2	190	1	38	220	7.9	6	4	34	2	11	46	30	19	11.00	
47	4915 A	16-Sep-83	*****		21	9.4	180	3	38												
48	4915 A	18-Jan-84			19	7.7	223	0	55	260	7.7	6	9	35	4	0	97	26	15	<0.1	
49	4915 A	14-Mar-84			20	8.4	220	0	102	290											
50	4915 A	03-Apr-84									8.5	8.0	13.0	28.0	5.0	0.0	98.0	17.0	20.0	0.1	0.4
51	4915 A	03-Apr-84																			
52	4915 A	22-May-84			21	8.4	250	0	106	270	8.5										
53	4915 A	18-Jul-84			25			0	104	250	8.6	7	10	33	4	2	110	8	13	<0.1	
54	4915 A	05-Sep-84																			
55	4915 A	05-Sep-84																			
56	4915 A	13-Sep-84			23			0	192	310			10								
57	4915 A	17-Oct-84		696.5																	
58	4915 A	27-Nov-84		693.9						270											
59	4915 A	26-Dec-84		692.2																	
60	4915 A	16-Jan-85	928.4	696.9	19	7.4	240	0	90	260	8.7	13	10	26	4	4	130	5	16	22.0	
61	4915 A	15-Feb-85	928.4	704.9																	
62	4915 A	14-Mar-85	928.4	706.8	19	7.8	240	0	104	450											
63	4915 A	15-May-85			19	6.4	220	0	92												
64	4915 A	17-Jul-85			23	7.8	430	0	98												
65	4915 A	25-Sep-85			20	7.9	280	2	127	260	8.0	18	8	20	3	0	120	15	16	1.7	
66	4915 A	20-Nov-85			18	7.9	580	11	192	620	7.5	91	16	18	5	0	260	28	36	8.4	
67	4915A	17-Jan-86			18	7.5	520	6	182	500	7.8	49	15	27	4	0	220	18	16	<4.43	
68	4915 A	27-Feb-86			20	6.8	450	18	185												
69	4915 A	13-May-86	928.4	708.6						330.0	8.1	38.0	15.0	28.0	4.4	0.0	158.5	14.0	19.0	<4	0.2
70	4915 A	15-Aug-86	928.4	703.2	24.0	7.8	220.0	0.0	106.0	360.0	8.0	16.0	17.0	30.0	4.1	0.0	146.3	12.0	20.0	0.6	
71	4915 A	20-Nov-86	928.4	686.2	20.0	7.4	270.0	1.0	114.0												
72	4915 A	09-Jan-87	928.4	681.4						370.0	7.9	36.0	14.0	28.0	2.6	<12	160.0	23.0	28.0	1.1	
73	4915 A	09-Apr-87		686.3	19.0	7.2	320.0	0.0	112.0	330.0	8.2	19.0	14.0	30.0	5.6	<0.6	143.0	17.0	22.0	0.5	
74	4915 A	29-May-87			20	8.0	280		190			65	17	28	4		190	44	17	1.4	
75	4915 A	26-Aug-87	928.1	675.8	22	7.1	250		110			13	12	30	4		110	10	22	<0.1	
76	4915 A	20-Nov-87	928.1	667.6	19	8.9	195		98			10	10	27	4		98	<5.0	28	<0.1	
77																					
78	4915 B	29-May-87	918.6	684.0	19	7.0	560		220			67	18	28	4		220	36	17	1.4	
79	4915 B	26-Aug-87	918.6	671.5	18	7.1	580		140			76	20	30	4		140	130	40	2.7	
80	4915 B	20-Nov-87	918.6	667.9	17	7.3	425		170			53	15	24	3		170	48	25	2.3	
81																					
82	4916	13-Dec-77	870.0							552	7.3	61	17	28	3	14	220	58	17	16.00	
83	4916	09-Apr-87								520.0	7.3	63.0	17.0	27.0	4.6	<0.6	240.0	50.0	15.0	7.6	
84	4916	29-May-87				7.0	480		120			16	15	29	4			5	23	0.10	
85	4916	26-Aug-87				6.8	450		200			57	16	30	4		200	55	17	1.70	
86	4916	20-Nov-87			17	7.7	385		190			58	16	26	4		190	56	22	1.80	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
1	4914 G	21-Jul-80	0.26	300																	
2	4914 G	08-Oct-80	0.06	340																	
3	4914 G	04-Mar-81																			
4	4914 G	08-Jun-81		313	5.0																
5	4914 G	14-Apr-82																			
6	4914 G	10-Jun-82																			
7	4914 G	21-Mar-83		300																	
8	4914 G	16-May-83																			
9	4914 G	15-Jul-83		300																	
10	4914 G	16-Sep-83									<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	0.2
11	4914 G	18-Jan-84		330	7.0																
12	4914 G	14-Mar-84		310	8.0																
13	4914 G	03-Apr-84			8.2	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0		<0.1	<0.001	<0.05	<0.01	<0.01	<0.005	<0.05
14	4914 G	03-Apr-84				(B&C)	0.0	0.0	0.0												
15	4914 G	22-May-84		380	<5																
16	4914 G	16-Jan-85	0.20	340	<3						<0.06		0.0	<0.08	<0.13	<0.001	<0.04			<0.005	0.0
17	4914 G	15-Mar-85		280	7.0																
18	4914 G	15-May-85																			
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86																			
22																					
23	4915	25-May-59	0.14	198																	
24	4915	13-Mar-73	ND	239																	
25	4915	21-Aug-74																			
26	4915	13-Dec-77																			
27	4915	21-Jul-80	0.17	220																	
28	4915	08-Oct-80	0.02	230																	
29	4915	04-Mar-81																			
30	4915	08-Jun-81		210	14.0																
31																					
32	4915 A	30-Apr-81	0.21	331																	
33	4915 A	01-May-81		350																	
34	4915 A	26-Jun-81		331	<3																
35	4915 A	09-Oct-81																			
36	4915 A	22-Dec-81																			
37	4915 A	18-Feb-82																			
38	4915 A	14-Apr-82																			
39	4915 A	10-Jun-82																			
40	4915 A	17-Aug-82		160																	
41	4915 A	14-Oct-82																			
42	4915 A	16-Dec-82																			
43	4915 A	21-Jan-83		137																	

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
1	4914 G	21-Jul-80	950.0			7.2	450	24		360	7.2			24			210	40	18	2.10	0.30
2	4914 G	08-Oct-80			12	7.4	560	5	230	500				24			246	48	10	1.00	0.40
3	4914 G	04-Mar-81			15	7.6	710	26	210												
4	4914 G	08-Jun-81			19	6.8	500	31	227	520	7.3										
5	4914 G	14-Apr-82			19	7.4	560	24	222	DRY											
6	4914 G	10-Jun-82			18	7.6	510	17	209												
7	4914 G	21-Mar-83		782.0	17	6.8	420	26	175	470	8.1	58	14	25	5	12	210	38	13	4.70	
8	4914 G	16-May-83			24	7.1	340	25	132												
9	4914 G	15-Jul-83		778.5	20	7.6	430	26	170	490	8.2	58	13	30	2	0	250	40	10	6.10	
10	4914 G	16-Sep-83			18	7.5	530	30	245												
11	4914 G	18-Jan-84			18	6.9	510	23	195	590	7.7	73	16	27	4	0	290	48	11	7.2	
12	4914 G	14-Mar-84			18	6.8	385	17	194	490											
13	4914 G	03-Apr-84																			
14	4914 G	03-Apr-84																			
15	4914 G	22-May-84			19	7.0	570	23	240	600	7.3										
16	4914 G	16-Jan-85			17	6.8	460	13	200	500	7.1	70	15	27	40	0	220	63	17	79.0	
17	4914 G	15-Mar-85			17	6.5	425	7	144	660											
18	4914 G	15-May-85			18	7.0	440	7	164												
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86			12	7.0	500	16	202												
22																					
23	4915	25-May-59								320	7.8	16	9	28	5		88	24	23	11.00	0.90
24	4915	13-Mar-73								330	7.8	28	10	24	3		122	36	18	1.10	0.48
25	4915	21-Aug-74								577	7.1	66	18	27	4			50	17		
26	4915	13-Dec-77								630	7.1	74	21	28	4	37	270	47	24	18.00	
27	4915	21-Jul-80	770.3	738.8		7.2	330	10		290	7.2			29			93	50	22	6.00	0.30
28	4915	08-Oct-80	770.3	729.9	19	7.6	440	8	150	380				29			167	46	14	0.20	0.30
29	4915	04-Mar-81			19	7.6	580	10	147												
30	4915	08-Jun-81			21	7.6	350	12	131	350	8.0										
31																					
32	4915 A	30-Apr-81	928.4							640	8.0			28			268	4	14	13.10	0.57
33	4915 A	01-May-81								640	8.0	75	19	27	4	18	256	59	14	1.80	0.40
34	4915 A	26-Jun-81			22	7.1	550	3	221	510	7.4			28			268		14	13.10	
35	4915 A	09-Oct-81			21	8.1	290	4	97												
36	4915 A	22-Dec-81			18	8.0	340	3	87												
37	4915 A	18-Feb-82			20	8.3	340	7	90												
38	4915 A	14-Apr-82			19	8.5	320	4	90												
39	4915 A	10-Jun-82			21	8.5	250	3	74												
40	4915 A	17-Aug-82		699.6		8.1	250	10	78	290	8.1	11	13	28	3		101	1	13	2.86	0.55
41	4915 A	14-Oct-82			20	8.2	270	8	72												
42	4915 A	16-Dec-82			17	8.8	245	9	64												
43	4915 A	21-Jan-83	928.4	685.4	18	8.3	239	8	60	260	8.4	10	8	27	5	1	80	34	13	0.42N	0.3

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
		mean	0.1	286.6	7.8	2.2	3.5	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.1	0.7
		std dev	0.1	100.1	12.3	5.7	10.1	3.0	1.4	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.6	0.0	0.0	0.4	5.3
		coef of v	1.0	0.3	1.6	2.6	2.9	1.4	2.6	ERR	4.6	ERR	3.5	7.5	4.8	ERR	4.0	3.4	2.3	4.7	8.0

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			WAT LEV (ft.)		FIELD MEASUREMENTS (ppm)					LABORATORY ANALYSES (ppm)						GENERAL MINERAL(ppm)					GENER
SERIAL #	WELL #	DATE	REF PT.	W S E	T(F)	pHF	ECf	CO2	Alk	EC	LpH	Ca	Mg	Na	K	CO3	HCO3	SO4	Cl	NO3	F
		mean	760.0	515.3	19.0	7.3	446	19.5	178.9	453	7.7	56.7	15.0	27.5	4.7	2.1	210.6	40.6	18.3	5.5	0.5
		std dev	306.8	276.8	2.2	0.7	137	25.1	59.4	153	0.5	27.1	3.5	4.7	4.7	6.2	68.7	21.1	6.4	8.8	0.3
		coef of v	0.4	0.5	0.1	0.1	0.3	1.3	0.3	0.3	0.1	0.5	0.2	0.2	1.0	3.0	0.3	0.5	0.3	1.6	0.6

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
173	4916 D	27-Nov-84		300	14.0																
174	4916 D	26-Dec-84																			
175	4916 D	16-Jan-85		310	<3						<0.06		<0.0002	<0.08	17.0	<0.001	0.5			<0.005	<0.022
176	4916 D	14-Feb-85																			
177	4916 D	14-Mar-85		260	11.0																
178	4916 D	15-May-85																			
179	4916 D	17-Jul-85																			
180	4916 D	25-Sep-85		200	<3		<1	1.0	<1					<0.035	<0.042		0.2				0.0
181	4916 D	20-Nov-85		360	3.8									<.031	<0.037		<0.019				<0.0085
182	4916 D	17-Jan-86		360	8.0									<0.033	<0.063		<0.029				<0.076
183	4916 D	27-Feb-86																			
184	4916 D	13-May-86	0.16	330.0	4.0	<3	<1	2.0						<0.02	<0.2		3.8				<0.04
185	4916 D	15-Aug-86		350.0	6.0	<3	<1	4.0	1.0					<0.02	<0.2		0.1				0.0
186	4916 D	09-Jan-87		330.0	5.0	<3	<1	<1	1.0		0.0	<0.02	<0.01	<0.03	<0.03	<0.0005	<0.003	<0.02	<0.06	<0.02	<0.08
187	4916 D	09-Apr-87		310.0		<3	<1	1.0	<1	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	2.0	<0.03
188	4916 D	29-May-87		350		4.3		10.3						<0.008	<0.110		<0.0049	<0.001			0.0
189	4916 D	26-Aug-87		350		1.5		<4.1						0.016	0.240		0.016	0.0014			0.1
190	4916 D	20-Nov-87		350		7.1		<4.1						<0.013	<0.170		<0.0052	0.0069			0.0
191																					
192	4926	04-Sep-53	0.00	332																	
193	4926	18-Sep-59	0.10	326																	
194	4926	02-Dec-64		294																	
195	4926	05-Apr-74	ND	415																	
196	4926	21-Jul-80	0.38	470																	
197	4926	08-Oct-80	0.22	500																	
198	4926	21-Jul-80																			
199	4926	08-Oct-80																			
200	4926	04-Mar-81																			
201	4926	08-Jun-81		500	3.0																
202	4926	09-Oct-81																			
203	4926	22-Dec-81																			
204	4926	19-Feb-82																			
205	4926	14-Apr-82																			
206	4926	16-Jun-82																			
207	4926	17-Aug-82	--	330																	
208	4926	14-Oct-82																			
209	4926	16-Dec-82																			
210	4926	21-Jan-83	0.31	361																	
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	0.4	500.0	70.0	36.5	50.0	10.3	8.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	3.8	0.0	0.1	2.0	44.0
		minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
173	4916 D	27-Nov-84		665.3						540											
174	4916 D	26-Dec-84		664.2																	
175	4916 D	16-Jan-85	882.0	662.5	16	6.7	490	15	247	500	7.4	63	17	27	6	0	310	27	16	<0.44	
176	4916 D	14-Feb-85	882.0	665.1																	
177	4916 D	14-Mar-85	882.0	669.5	18	7.5	500	17	220	610											
178	4916 D	15-May-85			17	6.9	400	4	188												
179	4916 D	17-Jul-85			21	5.4	540	7	176												
180	4916 D	25-Sep-85			18	7.4	390	10	195	400	7.9	51	8	15	3	0	200	26	18	1.7	
181	4916 D	20-Nov-85			16	7.5	620	20	230	570	7.1	120	17	29	5	0	260	27	26	<4.43	
182	4916 D	17-Jan-86			17	5.5	560	18	218	590	7.1	107	19	26	5	0	290	24	16	8.40	
183	4916 D	27-Feb-86			18	7.0	590	38	252												
184	4916 D	13-May-86	882.9	663.9						470.0	7.4	91.0	15.0	23.0	3.8	0.0	243.8	23.0	13.0	<4	0.4
185	4916 D	15-Aug-86	882.9	664.6	19.0	6.6	380.0	30.0	218.0	600.0	7.4	62.0	21.0	26.5	3.4	0.0	207.3	21.0	20.5	3.6	
186	4916 D	09-Jan-87			16.0	6.5	500.0	15.5	190.0	550.0	7.5	85.0	18.0	26.0	4.0	<12	240.0	48.0	18.0	7.6	
187	4916 D	09-Apr-87	882.9	647.7	20.0	5.8	480.0	17.0	190.0	510.0	7.1	64.0	18.0	24.0	4.5	<0.6	230.0	49.0	17.0	7.4	
188	4916 D	29-May-87			19	7.0	475		190			64	17	32	5		190	57	24	0.9	
189	4916 D	26-Aug-87			21	6.7	480		210			60	17	30	4		210	48	18	1.7	
190	4916 D	20-Nov-87		639.1	18	7.7	405		210			66	19	27	4		210	54	22	1.6	
191																					
192	4926	04-Sep-53								584	7.4	68	16	28	4		264	56	16	13.00	0.60
193	4926	18-Sep-59								540	7.4	66	16	23	3		250	49	12	12.00	0.50
194	4926	02-Dec-64								551	7.8	58	16	24	4		179	69	34	0.00	
195	4926	05-Apr-74								530	7.2	68	16	30	4		256	51	25	8.70	0.40
196	4926	21-Jul-80	890.3?	693.4						430	7.3			36			360	46	27	0.80	0.30
197	4926	08-Oct-80	890.3?	694.0						720				37			445	57	26	1.80	0.30
198	4926	21-Jul-80				7.3	770	62													
199	4926	08-Oct-80			18	7.0	865	77	366												
200	4926	04-Mar-81			20	7.3	850	74	300												
201	4926	08-Jun-81			23	6.6	720	65	345	770	7.4										
202	4926	09-Oct-81			22	7.1	520	24	230												
203	4926	22-Dec-81			21	7.5	590	40	205												
204	4926	19-Feb-82			22	7.9	370	11	176												
205	4926	14-Apr-82			19	7.7	510	19	217												
206	4926	16-Jun-82			24	7.2	510	21	224												
207	4926	17-Aug-82			22	8.0	330	41	220	500	8.0	64	17	28	3	4	268	44	14	1.05	0.20
208	4926	14-Oct-82			21	7.4	500	40	207												
209	4926	16-Dec-82			19	7.3	500	31	268												
210	4926	21-Jan-83	880.0	646.6	19	7.6	500	45	275	570	7.3	69	17	27	6	0	274	58	13	1.65*	0.46
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	950.0	782.0	25.0	9.6	865	225.0	366.0	770	9.2	120.0	21.0	42.0	40.0	37.0	445.0	130.0	40.0	79.0	1.5
		minimum	0.0	0.0	12.0	5.2	175	0.0	38.0	0	6.8	0.0	3.5	4.2	1.5	0.0	0.0	0.0	0.6	0.0	0.0

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
130	4916 A	09-Apr-87		330.0		<3	1.0	3.0	1.0	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
131	4916 A	29-May-87		420		15.0								0.0094			0.011	<0.005			0.020
132	4916 A	26-Aug-87		340		2.4								<0.008			<0.0035	<0.005			0.029
133	4916 A	20-Nov-87		340		2.3								<0.013			<0.0052	0.0082			<0.020
134																					
135	4916 B	04-Jan-56	0.17	361																	
136	4916 B	03-Dec-62		313																	
137	4916 B	02-Dec-64		282																	
138	4916 B	09-Aug-66		271																	
139	4916 B	03-Oct-66	0.00	331																	
140	4916 B	03-Apr-84			22.1	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0	0.0	0.1	<0.001	<.05	<0.01	0.1	<0.005	<0.05
141	4916 B	03-Apr-84				(B&C)	0.0	0.0	0.0												
142	4916 B	05-Sep-84				(rwqcb	0.0	0.0	0.0												
143	4916 B	05-Sep-84				(B&C)	0.0	0.0	0.0												
144	4916 B	25-Sep-85		320.0	<3		<1	1.0	<1					<0.035	<0.042		<0.022				0.0
145	4916 B	20-Nov-85		310	7.6									<.031	<0.037		<0.019				<0.0085
146	4916 B	13-May-86	0.16	300.0	4.0	<3	<1	<1						<0.02	<0.2		<0.01				0.1
147	4916 B	15-Aug-86		320.0	4.0	<3	<1	3.0	1.0					<0.02	<0.2		<0.01				<0.04
148	4916 B	09-Jan-87		320.0	10.0	<3	6.0	<1	3.0		<0.01	<0.02	0.0	<0.03	<0.03	<0.0005	0.0	<0.02	<0.06	<0.02	<0.08
149																					
150	4916 C	13-May-86	0.22	300.0	4.0	<3		8.0						<0.02	<0.2		<0.01				<0.04
151	4916 C	15-Aug-86		300.0	4.0	<3	<1	7.0	<1					<0.02	<0.2		<0.01				<0.04
152	4916 C	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
153	4916 C	09-Jan-87		330.0			<1	5.0	<1					<0.03	<0.03		<0.004				<0.08
154	4916 C	09-Apr-87		330.0		<3	<1	10.0	<1	<0.1	<0.01	<1	<0.02	<0.02	0.2		<0.005	<0.2	<0.04	<1	<0.03
155	4916 C	29-May-87		310		36.5		<4.1										<0.005			<0.020
156	4916 C	26-Aug-87		370		1.8		9.1										<0.005			0.043
157	4916 C	20-Nov-87		380		1.9		9.0										0.0074			0.027
158																					
159	4916 D	21-Mar-83		340	20.0																
160	4916 D	16-May-83		282	7.0																
161	4916 D	15-Jul-83		210	22.0																
162	4916 D	16-Sep-83									<0.04		<0.02	<0.06	<0.07	<0.001	0.18	<0.12		<0.012	<0.01
163	4916 D	18-Jan-84	<1	210	9.0																
164	4916 D	14-Mar-84		190	28.0																
165	4916 D	03-Apr-84		245.0	2.4	(rwqcb	0.0	0.6	0.0	<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	0.1	<0.005	<0.05
166	4916 D	03-Apr-84				(B&C)	1.0	2.0	8.0												
167	4916 D	22-May-84		210	<5									<0.061	<0.09		0.2				<0.019
168	4916 D	18-Jul-84		230	<3																
169	4916 D	05-Sep-84				(rwqcb	0.0	1.9	1.7												
170	4916 D	05-Sep-84				(B&C)	0.0	2.0	0.0												
171	4916 D	13-Sep-84		280	<3																
172	4916 D	17-Oct-84																			

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
130	4916 A	09-Apr-87	870.1		18.0	6.5	520.0	225.0	211.0	560.0	7.3	68.0	18.0	27.0	4.7	<0.6	270.0	48.0	17.0	8.0	
131	4916 A	29-May-87			18	6.9	490		150			78	20	30	4		150	100	35	2.4	
132	4916 A	26-Aug-87			18	6.8	440		210			58	17	28	4		210	46	15	1.7	
133	4916 A	20-Nov-87			17	7.7	390		200			62	18	26	4		200	69	20	1.6	
134																					
135	4916 B	04-Jan-56	8907?							598	8.2	64	21	36	4		272	76	12	3.70	0.30
136	4916 B	03-Dec-62								547	8.3	61	18	31			244	47	26	10.00	
137	4916 B	02-Dec-64								522	8.4	58	16	24	4		244	44	16		
138	4916 B	09-Aug-66								373	8.2	24	6	42	4		144	26	25	0.00	0.72
139	4916 B	03-Oct-66								644	8.0	63	17	34	3		227	78	34	0.40	
140	4916 B	03-Apr-84																			
141	4916 B	03-Apr-84																			
142	4916 B	05-Sep-84																			
143	4916 B	05-Sep-84																			
144	4916 B	25-Sep-85								480.0	8.3	110.0	11.0	16.0	3.3	0.0	230.0	51.0	14.0	4.4	
145	4916 B	20-Nov-85								510	7.6	110	15	24	5	0	240	25	22	12.0	
146	4916 B	13-May-86	712.2	681.9	17.0	7.8	460.0	12.5	184.0	460.0	7.8	84.0	14.0	21.0	3.8	0.0	243.8	20.0	14.0	7.0	0.4
147	4916 B	15-Aug-86	712.2		18.0	6.2	360.0	8.8	190.0	560.0	7.7	54.0	17.0	24.0	3.2	0.0	243.8	21.0	14.0	7.1	
148	4916 B	09-Jan-87	712.2		15.0	6.4	460.0	11.5	186.0	500.0	7.4	79.0	17.0	25.0	4.4	<12	240.0	42.0	12.0	8.1	
149																					
150	4916 C	13-May-86	895.0		19.0	8.0	460.0	7.0	162.0	450.0	7.9	71.0	11.0	25.0	4.0	0.0	207.3	26.0	14.0	12.0	1.5
151	4916 C	15-Aug-86			18.0	6.6	330.0	4.4	168.0	520.0	7.5	51.0	15.0	28.0	3.1	0.0	219.5	23.0	15.0	11.0	
152	4916 C	20-Nov-86			19.0	7.4	410.0	2.3	162.0												
153	4916 C	09-Jan-87								540.0	7.8	84.0	16.0	30.0	4.1	<12	230.0	57.0	18.0	18.0	
154	4916 C	09-Apr-87			19.0	6.8	420.0	7.0	165.0	560.0	7.6	68.0	17.0	31.0	4.7	<0.6	220.0	61.0	21.0	21.0	
155	4916 C	29-May-87				7.3	510		200			65	17	27	4		200	44	18	1.4	
156	4916 C	26-Aug-87			19	7.2	500		190			62	16	32	4		190	67	25	3.8	
157	4916 C	20-Nov-87			18	7.6	443		170			65	17	31	4		170	82	32	4.5	
158																					
159	4916 D	21-Mar-83		667.2	17	7.2	480	48	200	500	7.6	54	15	34	6	0	280	48	15	0.82	
160	4916 D	16-May-83			21	7.2	480	42	193	535											
161	4916 D	15-Jul-83		691.2	24	8.6	325	17	105	360	8.3	22	13	26	2	0	160	42	12	1.00	
162	4916 D	16-Sep-83			21	7.7	330	12	97												
163	4916 D	18-Jan-84			21	7.1	388	3	145	410	8.1	35	13	27	4	0	210	27	15	3.40	
164	4916 D	14-Mar-84			19	7.7	335	0	170	380											
165	4916 D	03-Apr-84									8.3	30.0	16.0	28.0	5.0	0.0	162.0	19.0	14.0	0.1	0.5
166	4916 D	03-Apr-84																			
167	4916 D	22-May-84			21	8.1	360	3	176	210	8.2										
168	4916 D	18-Jul-84			24			9	192	390	7.7	43	12	32	4	0	200	12	12	<0.1	
169	4916 D	05-Sep-84																			
170	4916 D	05-Sep-84																			
171	4916 D	13-Sep-84			24			63	220	500			15								
172	4916 D	17-Oct-84		667.6																	

			AL MINERAL(ppm)				ORGANICS (ppb)				TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
87																					
88	4916 A	09-Aug-66		482																	
89	4916 A	21-Sep-70		346																	
90	4916 A	08-Oct-71	ND	337																	
91	4916 A	22-Feb-73	ND	360																	
92	4916 A	04-Apr-74	0.34	386																	
93	4916 A	21-Jul-80	0.37	390																	
94	4916 A	08-Oct-80	0.20	380																	
95	4916 A	04-Mar-81																			
96	4916 A	08-Jun-81		370	<3																
97	4916 A	09-Oct-81																			
98	4916 A	14-Apr-82																			
99	4916 A	10-Jun-82																			
100	4916 A	17-Aug-82	—	340																	
101	4916 A	14-Oct-82																			
102	4916 A	16-Dec-82																			
103	4916 A	21-Jan-83	0.26	351	<5																
104	4916 A	15-Jul-83		340	59.0																
105	4916 A	16-Sep-83																			
106	4916 A	18-Jan-84	<0.1	330	<5						<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	<0.01
107	4916 A	14-Mar-84		340	<5																
108	4916 A	03-Apr-84			4.9	(rwqcb	0.7	4.6	0.9	<0.5	<0.001	<0.005	<0.001	<0.01	<.1	<0.001	2.7	<0.01	0.0	<0.005	<0.05
109	4916 A	03-Apr-84				(B&C)	0.0	0.0	0.0												
110	4916 A	22-May-84		340	<5									<0.061	<0.09		<0.038				<0.019
111	4916 A	18-Jul-84		170	<3																
112	4916 A	13-Sep-84		350	<3																
113	4916 A	24-Sep-84				(B&C)	1.0	6.0	0.0												
114	4916 A	24-Sep-84				(rwqcb	1.1	4.0	0.8												
115	4916 A	17-Oct-84																			
116	4916 A	27-Nov-84		340	20.0																
117	4916 A	26-Dec-84																			
118	4916 A	16-Jan-85	0.17	380	<3						<0.06		<0.0002	<0.08	0.1	<0.001	<0.05			<0.005	<0.022
119	4916 A	14-Mar-85		430	4.0																
120	4916 A	15-May-85																			
121	4916 A	17-Jul-85												<0.035	<0.042		<0.022				0.1
122	4916 A	25-Sep-85		330	<3		<1	3.0	<1					<.031	<0.037		<0.019				<0.0085
123	4916 A	20-Nov-85		290	3.8									<0.033	<0.063		<0.029				<0.076
124	4916 A	17-Jan-86		280	4.0																
125	4916 A	27-Feb-86												<0.02	<0.2		<0.01				<0.04
126	4916 A	13-May-86	0.15	320.0	4.0	<3	<1	1.0						<0.02	<0.2		<0.01				<0.04
127	4916 A	15-Aug-86		320.0	4.0	<3	<1	3.0	<1					<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
128	4916 A	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.03	<0.03		<0.004				<0.08
129	4916 A	09-Jan-87		330.0			1.0	<1	2.0												

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
87																					
88	4916 A	09-Aug-66								596	7.8	58	20	31	3		260	52	26	2.20	0.62
89	4916 A	21-Sep-70								439	7.3	48	11	25	4		194	45	13	6.00	1.00
90	4916 A	08-Oct-71								432	8.2	50	13	29	4		207	47	18	4.20	0.61
91	4916 A	22-Feb-73								465	7.4	52	16	25	3		207	60	23	5.00	
92	4916 A	04-Apr-74								500	7.6	66	12	31	4		204	77	23	5.00	0.52
93	4916 A	21-Jul-80				6.8	630	28		380	6.8			35			280	37	27	5.80	0.40
94	4916 A	08-Oct-80			16	7.4	670	26	167	600				35			284	46	1	2.70	0.50
95	4916 A	04-Mar-81			18	7.6	800	11	242												
96	4916 A	08-Jun-81			19	7.3	570	36	236	540	7.3										
97	4916 A	09-Oct-81			19	7.3	530	29	238												
98	4916 A	14-Apr-82			17	7.4	540	22	230												
99	4916 A	10-Jun-82			18	7.3	550	23	241												
100	4916 A	17-Aug-82			18	7.3	490	38	230	550	7.9	69	18	29	4	5	278	42	15	3.39	0.21
101	4916 A	14-Oct-82			20	7.1	500	48	220												
102	4916 A	16-Dec-82			17	7.4	500	46	263												
103	4916 A	21-Jan-83	870.1		17	7	500	43	264	540	7.3	64	16	27	5	0	270	53	13	1.60*	0.44
104	4916 A	15-Jul-83			19	7	480	31	245	530	8.2	71	17	28	2		280	46	14	8.00	
105	4916 A	16-Sep-83			19	6.8	450	40	183												
106	4916 A	18-Jan-84			18	6.8	515	23	185	560	7.9	68	17	27	4	0	250	55	16	6.30	
107	4916 A	14-Mar-84			19	7.7	335	0	170	570											
108	4916 A	03-Apr-84																			
109	4916 A	03-Apr-84																			
110	4916 A	22-May-84			17	7.0	540	27	229	540	8.0										
111	4916 A	18-Jul-84			23			28	208	530	7.2	66	16	4	32	0	250	41	13	6.2	
112	4916 A	13-Sep-84			21			20	232	600			17								
113	4916 A	24-Sep-84																			
114	4916 A	24-Sep-84																			
115	4916 A	17-Oct-84		PUMPING																	
116	4916 A	27-Nov-84		PUMPING						580											
117	4916 A	26-Dec-84		PUMPING																	
118	4916 A	16-Jan-85			16	6.5	500	12	205	540	7.5	67	19	28	3	0	320	51	13	7.2	
119	4916 A	14-Mar-85			17	7.2	540	13	191	740											
120	4916 A	15-May-85			18	6.2	530	14	196												
121	4916 A	17-Jul-85			19	7.4	700	13	200												
122	4916 A	25-Sep-85			18	7.2	520	7	228	510	8.0	91	12	17	3	0	240	51	14	9.6	
123	4916 A	20-Nov-85			16	7.6	540	15	182	290	7.3	110	16	26	4	0	240	25	23	8.4	
124	4916 A	17-Jan-86			17	7.6	530	8	162	510	7.4	100	15	24	4	0	240	22	10	8.40	
125	4916 A	27-Feb-86			18	6.2	500	21	216												
126	4916 A	13-May-86	870.1		.					470.0	7.4	100.0	14.0	22.0	4.1	0.0	256.0	18.0	11.5	7.0	0.5
127	4916 A	15-Aug-86			20.0	5.2	395.0	9.6	182.0	570.0	7.3	32.0	17.0	28.0	3.2	0.0	256.0	19.0	15.0	7.7	
128	4916 A	20-Nov-86	870.1	635.9	18.0	7.0	420.0	11.3	194.0												
129	4916 A	09-Jan-87	870.1	638.1						540.0	7.3	87.0	19.0	24.0	4.4	<12	260.0	48.0	15.0	9.9	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
44	4915 A	21-Mar-83		140																	
45	4915 A	16-May-83																			
46	4915 A	15-Jul-83		100																	
47	4915 A	16-Sep-83																			
48	4915 A	18-Jan-84	<1	120	17.0						<0.04		<0.02	<0.06	<0.07	<0.001	0.05	<0.12		<0.012	<0.01
49	4915 A	14-Mar-84		150	<5																
50	4915 A	03-Apr-84		198.0	9.8	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	<0.01	<0.005	<0.05
51	4915 A	03-Apr-84				(B&C)	0.0	0.0	0.0												
52	4915 A	22-May-84		220	<5																
53	4915 A	18-Jul-84		170	28.0									<0.061	<0.09		0.1				<0.019
54	4915 A	05-Sep-84				(rwqcb)	0.0	0.0	0.0												
55	4915 A	05-Sep-84				(B&C)	0.0	0.0	0.0												
56	4915 A	13-Sep-84		160	<3																
57	4915 A	17-Oct-84																			
58	4915 A	27-Nov-84		130	<5																
59	4915 A	26-Dec-84																			
60	4915 A	16-Jan-85		180	7.3																
61	4915 A	15-Feb-85																			
62	4915 A	14-Mar-85		150	29.0																
63	4915 A	15-May-85																			
64	4915 A	17-Jul-85																			
65	4915 A	25-Sep-85		120	<3		<1	<1	<1					<0.035	<0.042		0.1				0.0
66	4915 A	20-Nov-85		300	15.0									<.031	<0.037		<0.019				<0.0085
67	4915A	17-Jan-86		240	<3									<0.033	<0.063		0.20				<0.076
68	4915 A	27-Feb-86																			
69	4915 A	13-May-86	<0.10	200.0	4.0	<3	32.0	<1						<0.02	<0.2		0.1				<0.04
70	4915 A	15-Aug-86		180.0	70.0	16.0	40.0	<1	<1					<0.02	<0.2		0.1				<0.04
71	4915 A	20-Nov-86			15.0	<3					<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
72	4915 A	09-Jan-87		180.0			8.0	<1	<1					<0.03	<0.03		0.1				<0.08
73	4915 A	09-Apr-87		170.0		<3	10.0	<1	<1	<0.1	<0.01	<1	<0.02	<0.02	1.1		0.2				<0.03
74	4915 A	29-May-87		320		4.2	<1.9						<0.001		<0.110		<0.0049	<0.005			<0.020
75	4915 A	26-Aug-87		280		2.3	50.0						0.0015		3.7		0.1	0.0			0.0
76	4915 A	20-Nov-87		200		5.7	11.1						<0.001		<0.170		0.0				<0.020
77																					
78	4915 B	29-May-87		340		1.1									<0.110		<0.0049				44.0
79	4915 B	26-Aug-87		490		2.3									5.2		0.1				<0.020
80	4915 B	20-Nov-87		320		2.1									<0.170		0.0				<0.020
81																					
82	4916	13-Dec-77																			
83	4916	09-Apr-87		320.0		<3	<1	3.0	<1	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
84	4916	29-May-87				6.0	6.5							<0.008			0.100	<0.005			<0.020
85	4916	26-Aug-87				2.0	<1.9							0.025			<0.0035	0.013			0.034
86	4916	20-Nov-87				7.4	<1.9							<0.013			<0.0052	0.009			<0.020

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
44	4915 A	21-Mar-83		707.8	17	8.0	195	0		230	9.2	7	5	29	6	20	28	24	12	<0.1	
45	4915 A	16-May-83			21	9.6	175	0	42												
46	4915 A	15-Jul-83			23	9.2	190	1	38	220	7.9	6	4	34	2	11	46	30	19	11.00	
47	4915 A	16-Sep-83	*****		21	9.4	180	3	38												
48	4915 A	18-Jan-84			19	7.7	223	0	55	260	7.7	6	9	35	4	0	97	26	15	<0.1	
49	4915 A	14-Mar-84			20	8.4	220	0	102	290											
50	4915 A	03-Apr-84									8.5	8.0	13.0	28.0	5.0	0.0	98.0	17.0	20.0	0.1	0.4
51	4915 A	03-Apr-84																			
52	4915 A	22-May-84			21	8.4	250	0	106	270	8.5										
53	4915 A	18-Jul-84			25			0	104	250	8.6	7	10	33	4	2	110	8	13	<0.1	
54	4915 A	05-Sep-84																			
55	4915 A	05-Sep-84																			
56	4915 A	13-Sep-84			23			0	192	310			10								
57	4915 A	17-Oct-84		696.5																	
58	4915 A	27-Nov-84		693.9						270											
59	4915 A	26-Dec-84		692.2																	
60	4915 A	16-Jan-85	928.4	696.9	19	7.4	240	0	90	260	8.7	13	10	26	4	4	130	5	16	22.0	
61	4915 A	15-Feb-85	928.4	704.9																	
62	4915 A	14-Mar-85	928.4	706.8	19	7.8	240	0	104	450											
63	4915 A	15-May-85			19	6.4	220	0	92												
64	4915 A	17-Jul-85			23	7.8	430	0	98												
65	4915 A	25-Sep-85			20	7.9	280	2	127	260	8.0	18	8	20	3	0	120	15	16	1.7	
66	4915 A	20-Nov-85			18	7.9	580	11	192	620	7.5	91	16	18	5	0	260	28	36	8.4	
67	4915A	17-Jan-86			18	7.5	520	6	182	500	7.8	49	15	27	4	0	220	18	16	<4.43	
68	4915 A	27-Feb-86			20	6.8	450	18	185												
69	4915 A	13-May-86	928.4	708.6						330.0	8.1	38.0	15.0	28.0	4.4	0.0	158.5	14.0	19.0	<4	0.2
70	4915 A	15-Aug-86	928.4	703.2	24.0	7.8	220.0	0.0	106.0	360.0	8.0	16.0	17.0	30.0	4.1	0.0	146.3	12.0	20.0	0.6	
71	4915 A	20-Nov-86	928.4	686.2	20.0	7.4	270.0	1.0	114.0												
72	4915 A	09-Jan-87	928.4	681.4						370.0	7.9	36.0	14.0	28.0	2.6	<12	160.0	23.0	28.0	1.1	
73	4915 A	09-Apr-87		686.3	19.0	7.2	320.0	0.0	112.0	330.0	8.2	19.0	14.0	30.0	5.6	<0.6	143.0	17.0	22.0	0.5	
74	4915 A	29-May-87			20	8.0	280		190			65	17	28	4		190	44	17	1.4	
75	4915 A	26-Aug-87	928.1	675.8	22	7.1	250		110			13	12	30	4		110	10	22	<0.1	
76	4915 A	20-Nov-87	928.1	667.6	19	8.9	195		98			10	10	27	4		98	<5.0	28	<0.1	
77																					
78	4915 B	29-May-87	918.6	684.0	19	7.0	560		220			67	18	28	4		220	36	17	1.4	
79	4915 B	26-Aug-87	918.6	671.5	18	7.1	580		140			76	20	30	4		140	130	40	2.7	
80	4915 B	20-Nov-87	918.6	667.9	17	7.3	425		170			53	15	24	3		170	48	25	2.3	
81																					
82	4916	13-Dec-77	870.0							552	7.3	61	17	28	3	14	220	58	17	16.00	
83	4916	09-Apr-87								520.0	7.3	63.0	17.0	27.0	4.6	<0.6	240.0	50.0	15.0	7.6	
84	4916	29-May-87				7.0	480		120			16	15	29	4			5	23	0.10	
85	4916	26-Aug-87				6.8	450		200			57	16	30	4		200	55	17	1.70	
86	4916	20-Nov-87			17	7.7	385		190			58	16	26	4		190	56	22	1.80	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
1	4914 G	21-Jul-80	0.26	300																	
2	4914 G	08-Oct-80	0.06	340																	
3	4914 G	04-Mar-81																			
4	4914 G	08-Jun-81		313	5.0																
5	4914 G	14-Apr-82																			
6	4914 G	10-Jun-82																			
7	4914 G	21-Mar-83		300																	
8	4914 G	16-May-83																			
9	4914 G	15-Jul-83		300																	
10	4914 G	16-Sep-83																			
11	4914 G	18-Jan-84		330	7.0						<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	0.2
12	4914 G	14-Mar-84		310	8.0																
13	4914 G	03-Apr-84			8.2	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0		<0.1	<0.001	<0.05	<0.01	<0.01	<0.005	<0.05
14	4914 G	03-Apr-84				(B&C)	0.0	0.0	0.0												
15	4914 G	22-May-84		380	<5																
16	4914 G	16-Jan-85	0.20	340	<3						<0.06		0.0	<0.08	<0.13	<0.001	<0.04			<0.005	0.0
17	4914 G	15-Mar-85		280	7.0																
18	4914 G	15-May-85																			
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86																			
22																					
23	4915	25-May-59	0.14	198																	
24	4915	13-Mar-73	ND	239																	
25	4915	21-Aug-74																			
26	4915	13-Dec-77																			
27	4915	21-Jul-80	0.17	220																	
28	4915	08-Oct-80	0.02	230																	
29	4915	04-Mar-81																			
30	4915	08-Jun-81		210	14.0																
31																					
32	4915 A	30-Apr-81	0.21	331																	
33	4915 A	01-May-81		350																	
34	4915 A	26-Jun-81		331	<3																
35	4915 A	09-Oct-81																			
36	4915 A	22-Dec-81																			
37	4915 A	18-Feb-82																			
38	4915 A	14-Apr-82																			
39	4915 A	10-Jun-82																			
40	4915 A	17-Aug-82		160																	
41	4915 A	14-Oct-82																			
42	4915 A	16-Dec-82																			
43	4915 A	21-Jan-83		137																	

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SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
1	4914 G	21-Jul-80	950.0			7.2	450	24		360	7.2			24			210	40	18	2.10	0.30
2	4914 G	08-Oct-80			12	7.4	560	5	230	500				24			246	48	10	1.00	0.40
3	4914 G	04-Mar-81			15	7.6	710	26	210												
4	4914 G	08-Jun-81			19	6.8	500	31	227	520	7.3										
5	4914 G	14-Apr-82			19	7.4	560	24	222	DRY											
6	4914 G	10-Jun-82			18	7.6	510	17	209												
7	4914 G	21-Mar-83		782.0	17	6.8	420	26	175	470	8.1	58	14	25	5	12	210	38	13	4.70	
8	4914 G	16-May-83			24	7.1	340	25	132												
9	4914 G	15-Jul-83		778.5	20	7.6	430	26	170	490	8.2	58	13	30	2	0	250	40	10	6.10	
10	4914 G	16-Sep-83			18	7.5	530	30	245												
11	4914 G	18-Jan-84			18	6.9	510	23	195	590	7.7	73	16	27	4	0	290	48	11	7.2	
12	4914 G	14-Mar-84			18	6.8	385	17	194	490											
13	4914 G	03-Apr-84																			
14	4914 G	03-Apr-84																			
15	4914 G	22-May-84			19	7.0	570	23	240	600	7.3										
16	4914 G	16-Jan-85			17	6.8	460	13	200	500	7.1	70	15	27	40	0	220	63	17	79.0	
17	4914 G	15-Mar-85			17	6.5	425	7	144	660											
18	4914 G	15-May-85			18	7.0	440	7	164												
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86			12	7.0	500	16	202												
22																					
23	4915	25-May-59								320	7.8	16	9	28	5		88	24	23	11.00	0.90
24	4915	13-Mar-73								330	7.8	28	10	24	3		122	36	18	1.10	0.48
25	4915	21-Aug-74								577	7.1	66	18	27	4			50	17		
26	4915	13-Dec-77								630	7.1	74	21	28	4	37	270	47	24	18.00	
27	4915	21-Jul-80	770.3	738.8		7.2	330	10		290	7.2			29			93	50	22	6.00	0.30
28	4915	08-Oct-80	770.3	729.9	19	7.6	440	8	150	380				29			167	46	14	0.20	0.30
29	4915	04-Mar-81			19	7.6	580	10	147												
30	4915	08-Jun-81			21	7.6	350	12	131	350	8.0										
31																					
32	4915 A	30-Apr-81	928.4							640	8.0			28			268	4	14	13.10	0.57
33	4915 A	01-May-81								640	8.0	75	19	27	4	18	256	59	14	1.80	0.40
34	4915 A	26-Jun-81			22	7.1	550	3	221	510	7.4			28			268		14	13.10	
35	4915 A	09-Oct-81			21	8.1	290	4	97												
36	4915 A	22-Dec-81			18	8.0	340	3	87												
37	4915 A	18-Feb-82			20	8.3	340	7	90												
38	4915 A	14-Apr-82			19	8.5	320	4	90												
39	4915 A	10-Jun-82			21	8.5	250	3	74												
40	4915 A	17-Aug-82		699.6		8.1	250	10	78	290	8.1	11	13	28	3		101	1	13	2.86	0.55
41	4915 A	14-Oct-82			20	8.2	270	8	72												
42	4915 A	16-Dec-82			17	8.8	245	9	64												
43	4915 A	21-Jan-83	928.4	685.4	18	8.3	239	8	60	260	8.4	10	8	27	5	1	80	34	13	0.42N	0.3

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
		mean	0.1	286.6	7.8	2.2	3.5	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.1	0.7
		std dev	0.1	100.1	12.3	5.7	10.1	3.0	1.4	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.6	0.0	0.0	0.4	5.3
		coef of v	1.0	0.3	1.6	2.6	2.9	1.4	2.6	ERR	4.6	ERR	3.5	7.5	4.8	ERR	4.0	3.4	2.3	4.7	8.0

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			WAT LEV (ft.)		FIELD MEASUREMENTS (ppm)					LABORATORY ANALYSES (ppm)						GENERAL MINERAL(ppm)					GENER
SERIAL #	WELL #	DATE	REF PT.	W S E	T(F)	pHF	ECf	CO2	Alk	EC	LpH	Ca	Mg	Na	K	CO3	HCO3	SO4	Cl	NO3	F
		mean	760.0	515.3	19.0	7.3	446	19.5	178.9	453	7.7	56.7	15.0	27.5	4.7	2.1	210.6	40.6	18.3	5.5	0.5
		std dev	306.8	276.8	2.2	0.7	137	25.1	59.4	153	0.5	27.1	3.5	4.7	4.7	6.2	68.7	21.1	6.4	8.8	0.3
		coef of v	0.4	0.5	0.1	0.1	0.3	1.3	0.3	0.3	0.1	0.5	0.2	0.2	1.0	3.0	0.3	0.5	0.3	1.6	0.6

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
173	4916 D	27-Nov-84		300	14.0																
174	4916 D	26-Dec-84																			
175	4916 D	16-Jan-85		310	<3						<0.06		<0.0002	<0.08	17.0	<0.001	0.5			<0.005	<0.022
176	4916 D	14-Feb-85																			
177	4916 D	14-Mar-85		260	11.0																
178	4916 D	15-May-85																			
179	4916 D	17-Jul-85												<0.035	<0.042		0.2				0.0
180	4916 D	25-Sep-85		200	<3		<1	1.0	<1					<.031	<0.037		<0.019				<0.0085
181	4916 D	20-Nov-85		360	3.8									<0.033	<0.063		<0.029				<0.076
182	4916 D	17-Jan-86		360	8.0																
183	4916 D	27-Feb-86												<0.02	<0.2		3.8				<0.04
184	4916 D	13-May-86	0.16	330.0	4.0	<3	<1	2.0						<0.02	<0.2		0.1				0.0
185	4916 D	15-Aug-86		350.0	6.0	<3	<1	4.0	1.0					<0.03	<0.03	<0.0005	<0.003	<0.02	<0.06	<0.02	<0.08
186	4916 D	09-Jan-87		330.0	5.0	<3	<1	<1	1.0		0.0	<0.02	<0.01	<0.02	<0.02		<0.005	<0.2	<0.04	2.0	<0.03
187	4916 D	09-Apr-87		310.0		<3	<1	1.0	<1	<0.1	<0.01	<1	<0.02	<0.008	<0.110		<0.0049	<0.001			0.0
188	4916 D	29-May-87		350		4.3		10.3						0.016	0.240		0.016	0.0014			0.1
189	4916 D	26-Aug-87		350		1.5		<4.1						<0.013	<0.170		<0.0052	0.0069			0.0
190	4916 D	20-Nov-87		350		7.1		<4.1													
191																					
192	4926	04-Sep-53	0.00	332																	
193	4926	18-Sep-59	0.10	326																	
194	4926	02-Dec-64		294																	
195	4926	05-Apr-74	ND	415																	
196	4926	21-Jul-80	0.38	470																	
197	4926	08-Oct-80	0.22	500																	
198	4926	21-Jul-80																			
199	4926	08-Oct-80																			
200	4926	04-Mar-81																			
201	4926	08-Jun-81		500	3.0																
202	4926	09-Oct-81																			
203	4926	22-Dec-81																			
204	4926	19-Feb-82																			
205	4926	14-Apr-82																			
206	4926	16-Jun-82																			
207	4926	17-Aug-82	—	330																	
208	4926	14-Oct-82																			
209	4926	16-Dec-82																			
210	4926	21-Jan-83	0.31	361																	
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	0.4	500.0	70.0	36.5	50.0	10.3	8.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	3.8	0.0	0.1	2.0	44.0
		minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
173	4916 D	27-Nov-84		665.3						540											
174	4916 D	26-Dec-84		664.2																	
175	4916 D	16-Jan-85	882.0	662.5	16	6.7	490	15	247	500	7.4	63	17	27	6	0	310	27	16	<0.44	
176	4916 D	14-Feb-85	882.0	665.1																	
177	4916 D	14-Mar-85	882.0	669.5	18	7.5	500	17	220	610											
178	4916 D	15-May-85			17	6.9	400	4	188												
179	4916 D	17-Jul-85			21	5.4	540	7	176												
180	4916 D	25-Sep-85			18	7.4	390	10	195	400	7.9	51	8	15	3	0	200	26	18	1.7	
181	4916 D	20-Nov-85			16	7.5	620	20	230	570	7.1	120	17	29	5	0	260	27	26	<4.43	
182	4916 D	17-Jan-86			17	5.5	560	18	218	590	7.1	107	19	26	5	0	290	24	16	8.40	
183	4916 D	27-Feb-86			18	7.0	590	38	252												
184	4916 D	13-May-86	882.9	663.9						470.0	7.4	91.0	15.0	23.0	3.8	0.0	243.8	23.0	13.0	<4	0.4
185	4916 D	15-Aug-86	882.9	664.6	19.0	6.6	380.0	30.0	218.0	600.0	7.4	62.0	21.0	26.5	3.4	0.0	207.3	21.0	20.5	3.6	
186	4916 D	09-Jan-87			16.0	6.5	500.0	15.5	190.0	550.0	7.5	85.0	18.0	26.0	4.0	<12	240.0	48.0	18.0	7.6	
187	4916 D	09-Apr-87	882.9	647.7	20.0	5.8	480.0	17.0	190.0	510.0	7.1	64.0	18.0	24.0	4.5	<0.6	230.0	49.0	17.0	7.4	
188	4916 D	29-May-87			19	7.0	475		190			64	17	32	5		190	57	24	0.9	
189	4916 D	26-Aug-87			21	6.7	480		210			60	17	30	4		210	48	18	1.7	
190	4916 D	20-Nov-87		639.1	18	7.7	405		210			66	19	27	4		210	54	22	1.6	
191																					
192	4926	04-Sep-53								584	7.4	68	16	28	4		264	56	16	13.00	0.60
193	4926	18-Sep-59								540	7.4	66	16	23	3		250	49	12	12.00	0.50
194	4926	02-Dec-64								551	7.8	58	16	24	4		179	69	34	0.00	
195	4926	05-Apr-74								530	7.2	68	16	30	4		256	51	25	8.70	0.40
196	4926	21-Jul-80	890.3?	693.4						430	7.3			36			360	46	27	0.80	0.30
197	4926	08-Oct-80	890.3?	694.0						720				37			445	57	26	1.80	0.30
198	4926	21-Jul-80				7.3	770	62													
199	4926	08-Oct-80			18	7.0	865	77	366												
200	4926	04-Mar-81			20	7.3	850	74	300												
201	4926	08-Jun-81			23	6.6	720	65	345	770	7.4										
202	4926	09-Oct-81			22	7.1	520	24	230												
203	4926	22-Dec-81			21	7.5	590	40	205												
204	4926	19-Feb-82			22	7.9	370	11	176												
205	4926	14-Apr-82			19	7.7	510	19	217												
206	4926	16-Jun-82			24	7.2	510	21	224												
207	4926	17-Aug-82			22	8.0	330	41	220	500	8.0	64	17	28	3	4	268	44	14	1.05	0.20
208	4926	14-Oct-82			21	7.4	500	40	207												
209	4926	16-Dec-82			19	7.3	500	31	268												
210	4926	21-Jan-83	880.0	646.6	19	7.6	500	45	275	570	7.3	69	17	27	6	0	274	58	13	1.65*	0.46
211	4916 E	01-Feb-01																			
212	4905 A	01-Feb-01																			
213	4905 B	01-Feb-01																			
		maximum	950.0	782.0	25.0	9.6	865	225.0	366.0	770	9.2	120.0	21.0	42.0	40.0	37.0	445.0	130.0	40.0	79.0	1.5
		minimum	0.0	0.0	12.0	5.2	175	0.0	38.0	0	6.8	0.0	3.5	4.2	1.5	0.0	0.0	0.0	0.6	0.0	0.0

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
130	4916 A	09-Apr-87		330.0		<3	1.0	3.0	1.0	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
131	4916 A	29-May-87		420		15.0								0.0094			0.011	<0.005			0.020
132	4916 A	26-Aug-87		340		2.4								<0.008			<0.0035	<0.005			0.029
133	4916 A	20-Nov-87		340		2.3								<0.013			<0.0052	0.0082			<0.020
134																					
135	4916 B	04-Jan-56	0.17	361																	
136	4916 B	03-Dec-62		313																	
137	4916 B	02-Dec-64		282																	
138	4916 B	09-Aug-66		271																	
139	4916 B	03-Oct-66	0.00	331																	
140	4916 B	03-Apr-84			22.1	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0	0.0	0.1	<0.001	<.05	<0.01	0.1	<0.005	<0.05
141	4916 B	03-Apr-84				(B&C)	0.0	0.0	0.0												
142	4916 B	05-Sep-84				(rwqcb	0.0	0.0	0.0												
143	4916 B	05-Sep-84				(B&C)	0.0	0.0	0.0												
144	4916 B	25-Sep-85		320.0	<3		<1	1.0	<1					<0.035	<0.042		<0.022				0.0
145	4916 B	20-Nov-85		310	7.6									<.031	<0.037		<0.019				<0.0085
146	4916 B	13-May-86	0.16	300.0	4.0	<3	<1	<1						<0.02	<0.2		<0.01				0.1
147	4916 B	15-Aug-86		320.0	4.0	<3	<1	3.0	1.0					<0.02	<0.2		<0.01				<0.04
148	4916 B	09-Jan-87		320.0	10.0	<3	6.0	<1	3.0		<0.01	<0.02	0.0	<0.03	<0.03	<0.0005	0.0	<0.02	<0.06	<0.02	<0.08
149																					
150	4916 C	13-May-86	0.22	300.0	4.0	<3		8.0						<0.02	<0.2		<0.01				<0.04
151	4916 C	15-Aug-86		300.0	4.0	<3	<1	7.0	<1					<0.02	<0.2		<0.01				<0.04
152	4916 C	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
153	4916 C	09-Jan-87		330.0			<1	5.0	<1					<0.03	<0.03		<0.004				<0.08
154	4916 C	09-Apr-87		330.0		<3	<1	10.0	<1	<0.1	<0.01	<1	<0.02	<0.02	0.2		<0.005	<0.2	<0.04	<1	<0.03
155	4916 C	29-May-87		310		36.5		<4.1										<0.005			<0.020
156	4916 C	26-Aug-87		370		1.8		9.1										<0.005			0.043
157	4916 C	20-Nov-87		380		1.9		9.0										0.0074			0.027
158																					
159	4916 D	21-Mar-83		340	20.0																
160	4916 D	16-May-83		282	7.0																
161	4916 D	15-Jul-83		210	22.0																
162	4916 D	16-Sep-83																			
163	4916 D	18-Jan-84	<1	210	9.0						<0.04		<0.02	<0.06	<0.07	<0.001	0.18	<0.12		<0.012	<0.01
164	4916 D	14-Mar-84		190	28.0																
165	4916 D	03-Apr-84		245.0	2.4	(rwqcb	0.0	0.6	0.0	<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	0.1	<0.005	<0.05
166	4916 D	03-Apr-84				(B&C)	1.0	2.0	8.0												
167	4916 D	22-May-84		210	<5																
168	4916 D	18-Jul-84		230	<3									<0.061	<0.09		0.2				<0.019
169	4916 D	05-Sep-84				(rwqcb	0.0	1.9	1.7												
170	4916 D	05-Sep-84				(B&C)	0.0	2.0	0.0												
171	4916 D	13-Sep-84		280	<3																
172	4916 D	17-Oct-84																			

WELL IN SIDE OF PIT

MAIN BASIN WELL

ENTRANCE TO BRADLEY LANDFILL

CAUSE BY LANDFILL GAS

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
130	4916 A	09-Apr-87	870.1		18.0	6.5	520.0	225.0	211.0	560.0	7.3	68.0	18.0	27.0	4.7	<0.6	270.0	48.0	17.0	8.0	
131	4916 A	29-May-87			18	6.9	490		150			78	20	30	4		150	100	35	2.4	
132	4916 A	26-Aug-87			18	6.8	440		210			58	17	28	4		210	46	15	1.7	
133	4916 A	20-Nov-87			17	7.7	390		200			62	18	26	4		200	69	20	1.6	
134																					
135	4916 B	04-Jan-56	890??							598	8.2	64	21	36	4		272	76	12	3.70	0.30
136	4916 B	03-Dec-62								547	8.3	61	18	31			244	47	26	10.00	
137	4916 B	02-Dec-64								522	8.4	58	16	24	4		244	44	16		
138	4916 B	09-Aug-66								373	8.2	24	6	42	4		144	26	25	0.00	0.72
139	4916 B	03-Oct-66								644	8.0	63	17	34	3		227	78	34	0.40	
140	4916 B	03-Apr-84																			
141	4916 B	03-Apr-84																			
142	4916 B	05-Sep-84																			
143	4916 B	05-Sep-84																			
144	4916 B	25-Sep-85								480.0	8.3	110.0	11.0	16.0	3.3	0.0	230.0	51.0	14.0	4.4	
145	4916 B	20-Nov-85								510	7.6	110	15	24	5	0	240	25	22	12.0	
146	4916 B	13-May-86	712.2	681.9	17.0	7.8	460.0	12.5	184.0	460.0	7.8	84.0	14.0	21.0	3.8	0.0	243.8	20.0	14.0	7.0	0.4
147	4916 B	15-Aug-86	712.2		18.0	6.2	360.0	8.8	190.0	560.0	7.7	54.0	17.0	24.0	3.2	0.0	243.8	21.0	14.0	7.1	
148	4916 B	09-Jan-87	712.2		15.0	6.4	460.0	11.5	186.0	500.0	7.4	79.0	17.0	25.0	4.4	<12	240.0	42.0	12.0	8.1	
149																					
150	4916 C	13-May-86	895.0		19.0	8.0	460.0	7.0	162.0	450.0	7.9	71.0	11.0	25.0	4.0	0.0	207.3	26.0	14.0	12.0	1.5
151	4916 C	15-Aug-86			18.0	6.6	330.0	4.4	168.0	520.0	7.5	51.0	15.0	28.0	3.1	0.0	219.5	23.0	15.0	11.0	
152	4916 C	20-Nov-86			19.0	7.4	410.0	2.3	162.0												
153	4916 C	09-Jan-87								540.0	7.8	84.0	16.0	30.0	4.1	<12	230.0	57.0	18.0	18.0	
154	4916 C	09-Apr-87			19.0	6.8	420.0	7.0	165.0	560.0	7.6	68.0	17.0	31.0	4.7	<0.6	220.0	61.0	21.0	21.0	
155	4916 C	29-May-87				7.3	510		200			65	17	27	4		200	44	18	1.4	
156	4916 C	26-Aug-87			19	7.2	500		190			62	16	32	4		190	67	25	3.8	
157	4916 C	20-Nov-87			18	7.6	443		170			65	17	31	4		170	82	32	4.5	
158																					
159	4916 D	21-Mar-83		667.2	17	7.2	480	48	200	500	7.6	54	15	34	6	0	280	48	15	0.82	
160	4916 D	16-May-83			21	7.2	480	42	193	535											
161	4916 D	15-Jul-83		691.2	24	8.6	325	17	105	360	8.3	22	13	26	2	0	160	42	12	1.00	
162	4916 D	16-Sep-83			21	7.7	330	12	97												
163	4916 D	18-Jan-84			21	7.1	388	3	145	410	8.1	35	13	27	4	0	210	27	15	3.40	
164	4916 D	14-Mar-84			19	7.7	335	0	170	380											
165	4916 D	03-Apr-84									8.3	30.0	16.0	28.0	5.0	0.0	162.0	19.0	14.0	0.1	0.5
166	4916 D	03-Apr-84																			
167	4916 D	22-May-84			21	8.1	360	3	176	210	8.2										
168	4916 D	18-Jul-84			24			9	192	390	7.7	43	12	32	4	0	200	12	12	<0.1	
169	4916 D	05-Sep-84																			
170	4916 D	05-Sep-84																			
171	4916 D	13-Sep-84			24			63	220	500			15								
172	4916 D	17-Oct-84		667.6																	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)											
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
87																					
88	4916 A	09-Aug-66		482																	
89	4916 A	21-Sep-70		346																	
90	4916 A	08-Oct-71	ND	337																	
91	4916 A	22-Feb-73	ND	360																	
92	4916 A	04-Apr-74	0.34	386																	
93	4916 A	21-Jul-80	0.37	390																	
94	4916 A	08-Oct-80	0.20	380																	
95	4916 A	04-Mar-81																			
96	4916 A	08-Jun-81		370	<3																
97	4916 A	09-Oct-81																			
98	4916 A	14-Apr-82																			
99	4916 A	10-Jun-82																			
100	4916 A	17-Aug-82	—	340																	
101	4916 A	14-Oct-82																			
102	4916 A	16-Dec-82																			
103	4916 A	21-Jan-83	0.26	351	<5																
104	4916 A	15-Jul-83		340	59.0																
105	4916 A	16-Sep-83																			
106	4916 A	18-Jan-84	<0.1	330	<5																
107	4916 A	14-Mar-84		340	<5						<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	<0.01
108	4916 A	03-Apr-84			4.9	(rwqcb	0.7	4.6	0.9	<0.5	<0.001	<0.005	<0.001	<0.01	<.1	<0.001	2.7	<0.01	0.0	<0.005	<0.05
109	4916 A	03-Apr-84				(B&C)	0.0	0.0	0.0												
110	4916 A	22-May-84		340	<5																
111	4916 A	18-Jul-84		170	<3																
112	4916 A	13-Sep-84		350	<3									<0.061	<0.09		<0.038				<0.019
113	4916 A	24-Sep-84				(B&C)	1.0	6.0	0.0												
114	4916 A	24-Sep-84				(rwqcb	1.1	4.0	0.8												
115	4916 A	17-Oct-84																			
116	4916 A	27-Nov-84		340	20.0																
117	4916 A	26-Dec-84																			
118	4916 A	16-Jan-85	0.17	380	<3						<0.06		<0.0002	<0.08	0.1	<0.001	<0.05			<0.005	<0.022
119	4916 A	14-Mar-85		430	4.0																
120	4916 A	15-May-85																			
121	4916 A	17-Jul-85																			
122	4916 A	25-Sep-85		330	<3		<1	3.0	<1					<0.035	<0.042		<0.022				0.1
123	4916 A	20-Nov-85		290	3.8									<.031	<0.037		<0.019				<0.0085
124	4916 A	17-Jan-86		280	4.0									<0.033	<0.063		<0.029				<0.076
125	4916 A	27-Feb-86																			
126	4916 A	13-May-86	0.15	320.0	4.0	<3	<1	1.0						<0.02	<0.2		<0.01				<0.04
127	4916 A	15-Aug-86		320.0	4.0	<3	<1	3.0	<1					<0.02	<0.2		<0.01				<0.04
128	4916 A	20-Nov-86			<3	<3					<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
129	4916 A	09-Jan-87		330.0			1.0	<1	2.0					<0.03	<0.03		<0.004				18

GROUND WATER DATABASE

REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
87										596	7.8	58	20	31	3		260	52	26	2.20	0.62
88	4916 A	09-Aug-66								439	7.3	48	11	25	4		194	45	13	6.00	1.00
89	4916 A	21-Sep-70								432	8.2	50	13	29	4		207	47	18	4.20	0.61
90	4916 A	08-Oct-71								465	7.4	52	16	25	3		207	60	23	5.00	
91	4916 A	22-Feb-73								500	7.6	66	12	31	4		204	77	23	5.00	0.52
92	4916 A	04-Apr-74				6.8	630	28		380	6.8			35			280	37	27	5.80	0.40
93	4916 A	21-Jul-80			16	7.4	670	26	167	600				35			284	46	1	2.70	0.50
94	4916 A	08-Oct-80			18	7.6	800	11	242												
95	4916 A	04-Mar-81			19	7.3	570	36	236	540	7.3										
96	4916 A	08-Jun-81			19	7.3	530	29	238												
97	4916 A	09-Oct-81			17	7.4	540	22	230												
98	4916 A	14-Apr-82			18	7.3	550	23	241												
99	4916 A	10-Jun-82			18	7.3	490	38	230	550	7.9	69	18	29	4	5	278	42	15	3.39	0.21
100	4916 A	17-Aug-82			20	7.1	500	48	220												
101	4916 A	14-Oct-82			17	7.4	500	46	263												
102	4916 A	16-Dec-82			17	7	500	43	264	540	7.3	64	16	27	5	0	270	53	13	1.60*	0.44
103	4916 A	21-Jan-83	870.1		19	7	480	31	245	530	8.2	71	17	28	2		280	46	14	8.00	
104	4916 A	15-Jul-83			19	6.8	450	40	183												
105	4916 A	16-Sep-83			18	6.8	515	23	185	560	7.9	68	17	27	4	0	250	55	16	6.30	
106	4916 A	18-Jan-84			19	7.7	335	0	170	570											
107	4916 A	14-Mar-84																			
108	4916 A	03-Apr-84																			
109	4916 A	03-Apr-84																			
110	4916 A	22-May-84			17	7.0	540	27	229	540	8.0										
111	4916 A	18-Jul-84			23			28	208	530	7.2	66	16	4	32	0	250	41	13	6.2	
112	4916 A	13-Sep-84			21			20	232	600			17								
113	4916 A	24-Sep-84																			
114	4916 A	24-Sep-84																			
115	4916 A	17-Oct-84	PUMPING																		
116	4916 A	27-Nov-84	PUMPING																		
117	4916 A	26-Dec-84	PUMPING							580											
118	4916 A	16-Jan-85			16	6.5	500	12	205	540	7.5	67	19	28	3	0	320	51	13	7.2	
119	4916 A	14-Mar-85			17	7.2	540	13	191	740											
120	4916 A	15-May-85			18	6.2	530	14	196												
121	4916 A	17-Jul-85			19	7.4	700	13	200												
122	4916 A	25-Sep-85			18	7.2	520	7	228	510	8.0	91	12	17	3	0	240	51	14	9.6	
123	4916 A	20-Nov-85			16	7.6	540	15	182	290	7.3	110	16	26	4	0	240	25	23	8.4	
124	4916 A	17-Jan-86			17	7.6	530	8	162	510	7.4	100	15	24	4	0	240	22	10	8.40	
125	4916 A	27-Feb-86			18	6.2	500	21	216												
126	4916 A	13-May-86	870.1							470.0	7.4	100.0	14.0	22.0	4.1	0.0	256.0	18.0	11.5	7.0	0.5
127	4916 A	15-Aug-86			20.0	5.2	395.0	9.6	182.0	570.0	7.3	32.0	17.0	28.0	3.2	0.0	256.0	19.0	15.0	7.7	
128	4916 A	20-Nov-86	870.1	635.9	18.0	7.0	420.0	11.3	194.0												
129	4916 A	09-Jan-87	870.1	638.1						540.0	7.3	87.0	19.0	24.0	4.4	<12	260.0	48.0	15.0	9.9	

SERIAL #	WELL #	DATE	AL MINERAL(ppm) B	TDS	COD	TOC	ORGANICS (ppb) TCE	PCE	1,2DCA	TRACE ELEMENTS (ppm) Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
44	4915 A	21-Mar-83		140																	
45	4915 A	16-May-83																			
46	4915 A	15-Jul-83		100																	
47	4915 A	16-Sep-83																			
48	4915 A	18-Jan-84	<1	120	17.0																
49	4915 A	14-Mar-84		150	<5						<0.04		<0.02	<0.06	<0.07	<0.001	0.05	<0.12		<0.012	<0.01
50	4915 A	03-Apr-84		198.0	9.8	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	<0.001	<0.01	0.1	<0.001	0.1	<0.01	<0.01	<0.005	<0.05
51	4915 A	03-Apr-84				(B&C)	0.0	0.0	0.0												
52	4915 A	22-May-84		220	<5																
53	4915 A	18-Jul-84		170	28.0																
54	4915 A	05-Sep-84				(rwqcb)	0.0	0.0	0.0					<0.061	<0.09		0.1				<0.019
55	4915 A	05-Sep-84				(B&C)	0.0	0.0	0.0												
56	4915 A	13-Sep-84		160	<3																
57	4915 A	17-Oct-84																			
58	4915 A	27-Nov-84		130	<5																
59	4915 A	26-Dec-84																			
60	4915 A	16-Jan-85		180	7.3																
61	4915 A	15-Feb-85																			
62	4915 A	14-Mar-85		150	29.0																
63	4915 A	15-May-85																			
64	4915 A	17-Jul-85																			
65	4915 A	25-Sep-85		120	<3		<1	<1	<1												
66	4915 A	20-Nov-85		300	15.0									<0.035	<0.042		0.1				0.0
67	4915A	17-Jan-86		240	<3									<.031	<0.037		<0.019				<0.0085
68	4915 A	27-Feb-86												<0.033	<0.063		0.20				<0.076
69	4915 A	13-May-86	<0.10	200.0	4.0	<3	32.0	<1													
70	4915 A	15-Aug-86		180.0	70.0	16.0	40.0	<1	<1					<0.02	<0.2		0.1				<0.04
71	4915 A	20-Nov-86			15.0	<3								<0.02	<0.2		0.1				<0.04
72	4915 A	09-Jan-87		180.0			8.0	<1	<1		<0.01	<0.003	<0.01	<0.04		<0.0005		<0.02	<0.06	<0.008	<0.08
73	4915 A	09-Apr-87		170.0		<3	10.0	<1	<1	<0.1	<0.01	<1	<0.02	<0.03	<0.03		0.1				<0.08
74	4915 A	29-May-87		320		4.2	<1.9						<0.001	<0.02	1.1		0.2				<0.03
75	4915 A	26-Aug-87		280		2.3	50.0						0.0015		<0.110		<0.0049	<0.005			<0.020
76	4915 A	20-Nov-87		200		5.7	11.1						<0.001		3.7		0.1	0.0			0.0
77															<0.170		0.0				<0.020
78	4915 B	29-May-87		340		1.1															
79	4915 B	26-Aug-87		490		2.3									<0.110		<0.0049				44.0
80	4915 B	20-Nov-87		320		2.1									5.2		0.1				<0.020
81															<0.170		0.0				<0.020
82	4916	13-Dec-77																			
83	4916	09-Apr-87		320.0		<3	<1	3.0	<1	<0.1	<0.01	<1	<0.02	<0.02	<0.02		<0.005	<0.2	<0.04	<1	<0.03
84	4916	29-May-87				6.0	6.5							<0.008			0.100	<0.005			<0.020
85	4916	26-Aug-87				2.0	<1.9							0.025			<0.0035	0.013			0.034
86	4916	20-Nov-87				7.4	<1.9							<0.013			<0.0052	0.009			020

CAUSED BY LANDFILL GAS

GROUND WATER DATABASE REV: Mar-88

SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
44	4915 A	21-Mar-83		707.8	17	8.0	195	0		230	9.2	7	5	29	6	20	28	24	12	<0.1	
45	4915 A	16-May-83			21	9.6	175	0	42												
46	4915 A	15-Jul-83			23	9.2	190	1	38	220	7.9	6	4	34	2	11	46	30	19	11.00	
47	4915 A	16-Sep-83	.....		21	9.4	180	3	38												
48	4915 A	18-Jan-84			19	7.7	223	0	55	260	7.7	6	9	35	4	0	97	26	15	<0.1	
49	4915 A	14-Mar-84			20	8.4	220	0	102	290											
50	4915 A	03-Apr-84									8.5	8.0	13.0	28.0	5.0	0.0	98.0	17.0	20.0	0.1	0.4
51	4915 A	03-Apr-84																			
52	4915 A	22-May-84			21	8.4	250	0	106	270	8.5										
53	4915 A	18-Jul-84			25			0	104	250	8.6	7	10	33	4	2	110	8	13	<0.1	
54	4915 A	05-Sep-84																			
55	4915 A	05-Sep-84																			
56	4915 A	13-Sep-84			23			0	192	310			10								
57	4915 A	17-Oct-84		696.5																	
58	4915 A	27-Nov-84		693.9						270											
59	4915 A	26-Dec-84		692.2																	
60	4915 A	16-Jan-85	928.4	696.9	19	7.4	240	0	90	260	8.7	13	10	26	4	4	130	5	16	22.0	
61	4915 A	15-Feb-85	928.4	704.9																	
62	4915 A	14-Mar-85	928.4	706.8	19	7.8	240	0	104	450											
63	4915 A	15-May-85			19	6.4	220	0	92												
64	4915 A	17-Jul-85			23	7.8	430	0	98												
65	4915 A	25-Sep-85			20	7.9	280	2	127	260	8.0	18	8	20	3	0	120	15	16	1.7	
66	4915 A	20-Nov-85			18	7.9	580	11	192	620	7.5	91	16	18	5	0	260	28	36	8.4	
67	4915A	17-Jan-86			18	7.5	520	6	182	500	7.8	49	15	27	4	0	220	18	16	<4.43	
68	4915 A	27-Feb-86			20	6.8	450	18	185												
69	4915 A	13-May-86	928.4	708.6						330.0	8.1	38.0	15.0	28.0	4.4	0.0	158.5	14.0	19.0	<4	0.2
70	4915 A	15-Aug-86	928.4	703.2	24.0	7.8	220.0	0.0	106.0	360.0	8.0	16.0	17.0	30.0	4.1	0.0	146.3	12.0	20.0	0.6	
71	4915 A	20-Nov-86	928.4	686.2	20.0	7.4	270.0	1.0	114.0												
72	4915 A	09-Jan-87	928.4	681.4						370.0	7.9	36.0	14.0	28.0	2.6	<12	160.0	23.0	28.0	1.1	
73	4915 A	09-Apr-87		686.3	19.0	7.2	320.0	0.0	112.0	330.0	8.2	19.0	14.0	30.0	5.6	<0.6	143.0	17.0	22.0	0.5	
74	4915 A	29-May-87			20	8.0	280		190			65	17	28	4		190	44	17	1.4	
75	4915 A	26-Aug-87	928.1	675.8	22	7.1	250		110			13	12	30	4		110	10	22	<0.1	
76	4915 A	20-Nov-87	928.1	667.6	19	8.9	195		98			10	10	27	4		98	<5.0	28	<0.1	
77																					
78	4915 B	29-May-87	918.6	684.0	19	7.0	560		220			67	18	28	4		220	36	17	1.4	
79	4915 B	26-Aug-87	918.6	671.5	18	7.1	580		140			76	20	30	4		140	130	40	2.7	
80	4915 B	20-Nov-87	918.6	667.9	17	7.3	425		170			53	15	24	3		170	48	25	2.3	
81																					
82	4916	13-Dec-77	870.0							552	7.3	61	17	28	3	14	220	58	17	16.00	
83	4916	09-Apr-87								520.0	7.3	63.0	17.0	27.0	4.6	<0.6	240.0	50.0	15.0	7.6	
84	4916	29-May-87				7.0	480		120			16	15	29	4			5	23	0.10	
85	4916	26-Aug-87				6.8	450		200			57	16	30	4		200	55	17	1.70	
86	4916	20-Nov-87			17	7.7	385		190			58	16	26	4		190	56	22	1.80	

			AL MINERAL(ppm)				ORGANICS (ppb)			TRACE ELEMENTS (ppm)										
SERIAL #	WELL #	DATE	B	TDS	COD	TOC	TCE	PCE	1,2DCA	Al	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Ni	Se	Zn
1	4914 G	21-Jul-80	0.26	300																	
2	4914 G	08-Oct-80	0.06	340																	
3	4914 G	04-Mar-81																			
4	4914 G	08-Jun-81		313	5.0																
5	4914 G	14-Apr-82																			
6	4914 G	10-Jun-82																			
7	4914 G	21-Mar-83		300																	
8	4914 G	16-May-83																			
9	4914 G	15-Jul-83		300																	
10	4914 G	16-Sep-83																			
11	4914 G	18-Jan-84		330	7.0						<0.04		<0.02	<0.06	<0.07	<0.001	<0.04	<0.12		<0.012	0.2
12	4914 G	14-Mar-84		310	8.0																
13	4914 G	03-Apr-84			8.2	(rwqcb	0.0	0.0	0.0	<0.5	<0.001	<0.005	0.0		<0.1	<0.001	<0.05	<0.01	<0.01	<0.005	<0.05
14	4914 G	03-Apr-84				(B&C)	0.0	0.0	0.0												
15	4914 G	22-May-84		380	<5																
16	4914 G	16-Jan-85	0.20	340	<3						<0.06		0.0	<0.08	<0.13	<0.001	<0.04			<0.005	0.0
17	4914 G	15-Mar-85		280	7.0																
18	4914 G	15-May-85																			
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86																			
22																					
23	4915	25-May-59	0.14	198																	
24	4915	13-Mar-73	ND	239																	
25	4915	21-Aug-74																			
26	4915	13-Dec-77																			
27	4915	21-Jul-80	0.17	220																	
28	4915	08-Oct-80	0.02	230																	
29	4915	04-Mar-81																			
30	4915	08-Jun-81		210	14.0																
31																					
32	4915 A	30-Apr-81	0.21	331																	
33	4915 A	01-May-81		350																	
34	4915 A	26-Jun-81		331	<3																
35	4915 A	09-Oct-81																			
36	4915 A	22-Dec-81																			
37	4915 A	18-Feb-82																			
38	4915 A	14-Apr-82																			
39	4915 A	10-Jun-82																			
40	4915 A	17-Aug-82		160																	
41	4915 A	14-Oct-82																			
42	4915 A	16-Dec-82																			
43	4915 A	21-Jan-83		137																	

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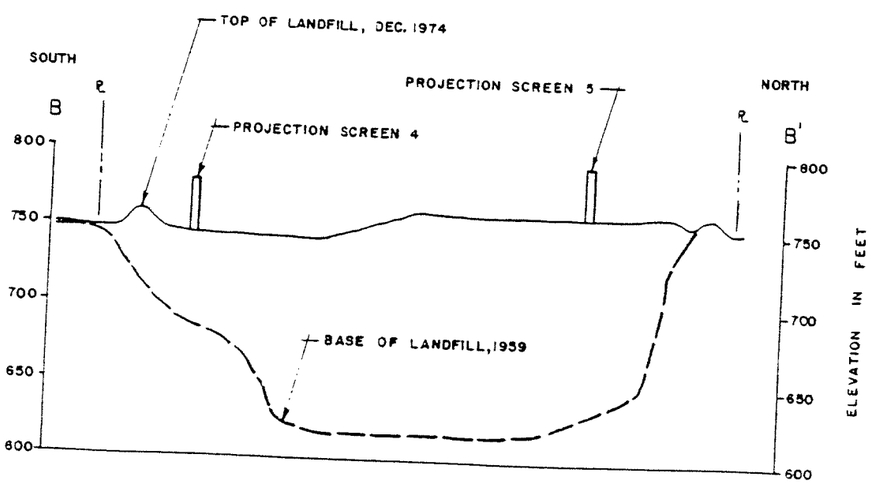
SERIAL #	WELL #	DATE	WAT LEV (ft.) REF PT.	WAT LEV (ft.) W S E	FIELD MEASUREMENTS (ppm) T(F)	pHF	ECf	CO2	Alk	LABORATORY ANALYSES (ppm) EC	LpH	Ca	Mg	Na	K	GENERAL MINERAL(ppm) CO3	HCO3	SO4	Cl	NO3	GENER F
1	4914 G	21-Jul-80	950.0			7.2	450	24		360	7.2			24			210	40	18	2.10	0.30
2	4914 G	08-Oct-80			12	7.4	560	5	230	500				24			246	48	10	1.00	0.40
3	4914 G	04-Mar-81			15	7.6	710	26	210												
4	4914 G	08-Jun-81			19	6.8	500	31	227	520	7.3										
5	4914 G	14-Apr-82			19	7.4	560	24	222	DRY											
6	4914 G	10-Jun-82			18	7.6	510	17	209												
7	4914 G	21-Mar-83		782.0	17	6.8	420	26	175	470	8.1	58	14	25	5	12	210	38	13	4.70	
8	4914 G	16-May-83			24	7.1	340	25	132												
9	4914 G	15-Jul-83		778.5	20	7.6	430	26	170	490	8.2	58	13	30	2	0	250	40	10	6.10	
10	4914 G	16-Sep-83			18	7.5	530	30	245												
11	4914 G	18-Jan-84			18	6.9	510	23	195	590	7.7	73	16	27	4	0	290	48	11	7.2	
12	4914 G	14-Mar-84			18	6.8	385	17	194	490											
13	4914 G	03-Apr-84																			
14	4914 G	03-Apr-84																			
15	4914 G	22-May-84			19	7.0	570	23	240	600	7.3										
16	4914 G	16-Jan-85			17	6.8	460	13	200	500	7.1	70	15	27	40	0	220	63	17	79.0	
17	4914 G	15-Mar-85			17	6.5	425	7	144	660											
18	4914 G	15-May-85			18	7.0	440	7	164												
19	4914 G	20-Nov-85																			
20	4914 G	17-Jan-86																			
21	4914 G	27-Feb-86			12	7.0	500	16	202												
22																					
23	4915	25-May-59								320	7.8	16	9	28	5		88	24	23	11.00	0.90
24	4915	13-Mar-73								330	7.8	28	10	24	3		122	36	18	1.10	0.48
25	4915	21-Aug-74								577	7.1	66	18	27	4			50	17		
26	4915	13-Dec-77								630	7.1	74	21	28	4	37	270	47	24	18.00	
27	4915	21-Jul-80	770.3	738.8		7.2	330	10		290	7.2			29			93	50	22	6.00	0.30
28	4915	08-Oct-80	770.3	729.9	19	7.6	440	8	150	380				29			167	46	14	0.20	0.30
29	4915	04-Mar-81			19	7.6	580	10	147												
30	4915	08-Jun-81			21	7.6	350	12	131	350	8.0										
31																					
32	4915 A	30-Apr-81	928.4							640	8.0			28			268	4	14	13.10	0.57
33	4915 A	01-May-81								640	8.0	75	19	27	4	18	256	59	14	1.80	0.40
34	4915 A	26-Jun-81			22	7.1	550	3	221	510	7.4			28			268		14	13.10	
35	4915 A	09-Oct-81			21	8.1	290	4	97												
36	4915 A	22-Dec-81			18	8.0	340	3	87												
37	4915 A	18-Feb-82			20	8.3	340	7	90												
38	4915 A	14-Apr-82			19	8.5	320	4	90												
39	4915 A	10-Jun-82			21	8.5	250	3	74												
40	4915 A	17-Aug-82		699.6		8.1	250	10	78	290	8.1	11	13	28	3		101	1	13	2.86	0.55
41	4915 A	14-Oct-82			20	8.2	270	8	72												
42	4915 A	16-Dec-82			17	8.8	245	9	64												
43	4915 A	21-Jan-83	928.4	685.4	18	8.3	239	8	60	260	8.4	10	8	27	5	1	80	34	13	0.42N	0.3

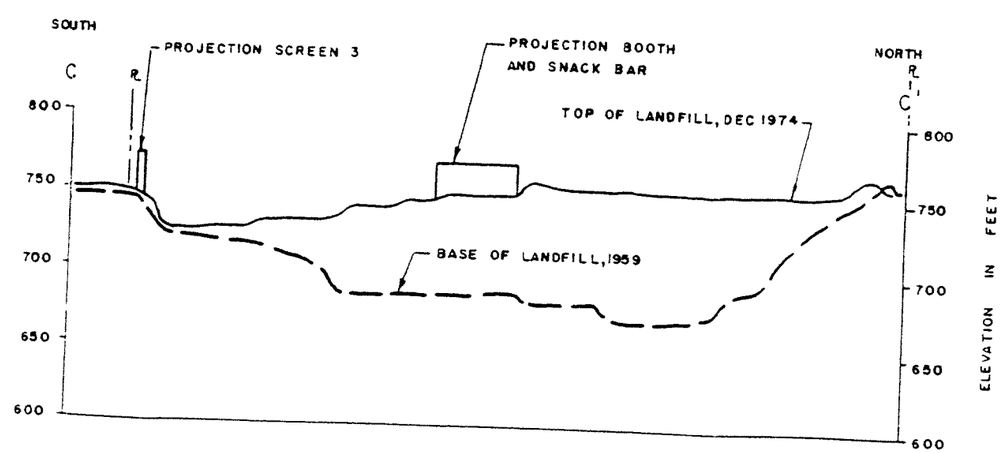
30. For each waste stream generated describe:			
A. collection			
B. storage			
C. treatment			
D. transport			
E. disposal			
31. Descrition of all pre-treatment procedures performed on waste streams prior to transport for disposal			
32. Description of method used to remove waste streams from sumps			
33. I.D. all wastes stored prior to shipment for disposal and describe storage procedures prior to disposal			
34. I.D. all leaks, spills, or other releases of any chemicals, HAZMAT and provide:			
A. date of release			
B. cause of release			
C. amount released			
D. where the release occurred and what areas were impacted			
E. Activities in reponse to release (i.e. notification of any local, state or federal agencies)			
35. Corresponce with state, local, or federal authorities concerning the use, handling or disposal of any chemicals or hazmat			
36. List any hazardous substances that the Company knew, at the time of purchase, had been used or disposed of at the facility			
37. State whether the company is aware of any measures taken to contain or remediate the effects of releases of hazardous substancesat or adjacent to the facility			
a. Provide documentation of such remediation efforts not previously provided to the EPA			
b. Documentation from state or federal regulatory agencies not previously provided to the EPA identifying the need for investigation or remediationof releases of hazardous substances at or adjacent the facility			

SCALE:
HORIZ. 1" = 200'
VERT. 1" = 100'

CROSS-SECTION A-A'



CROSS-SECTION B-B'



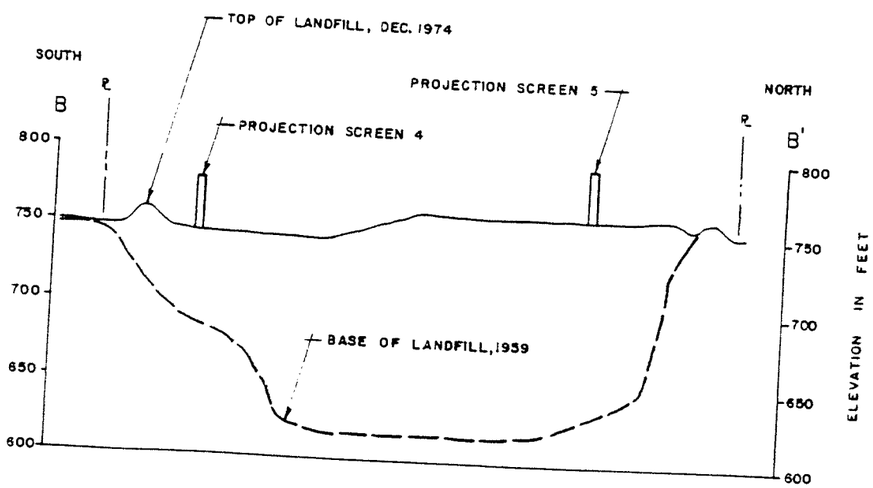
CROSS-SECTION C-C'

SECTIONS

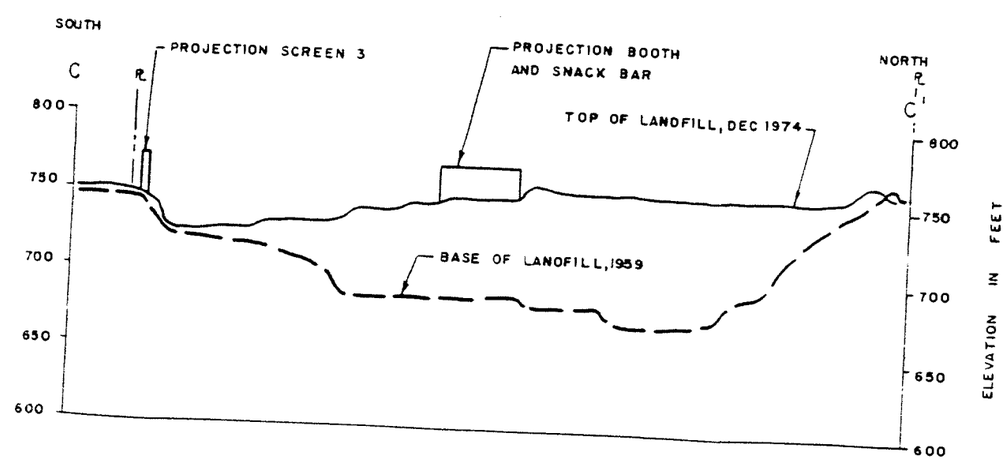
LeROY CRANDALL AND ASSOCIATES

CROSS-SECTION A-A'

SCALE:
HORIZ. 1" = 200'
VERT. 1" = 100'



CROSS-SECTION B-B'



CROSS-SECTION C-C'

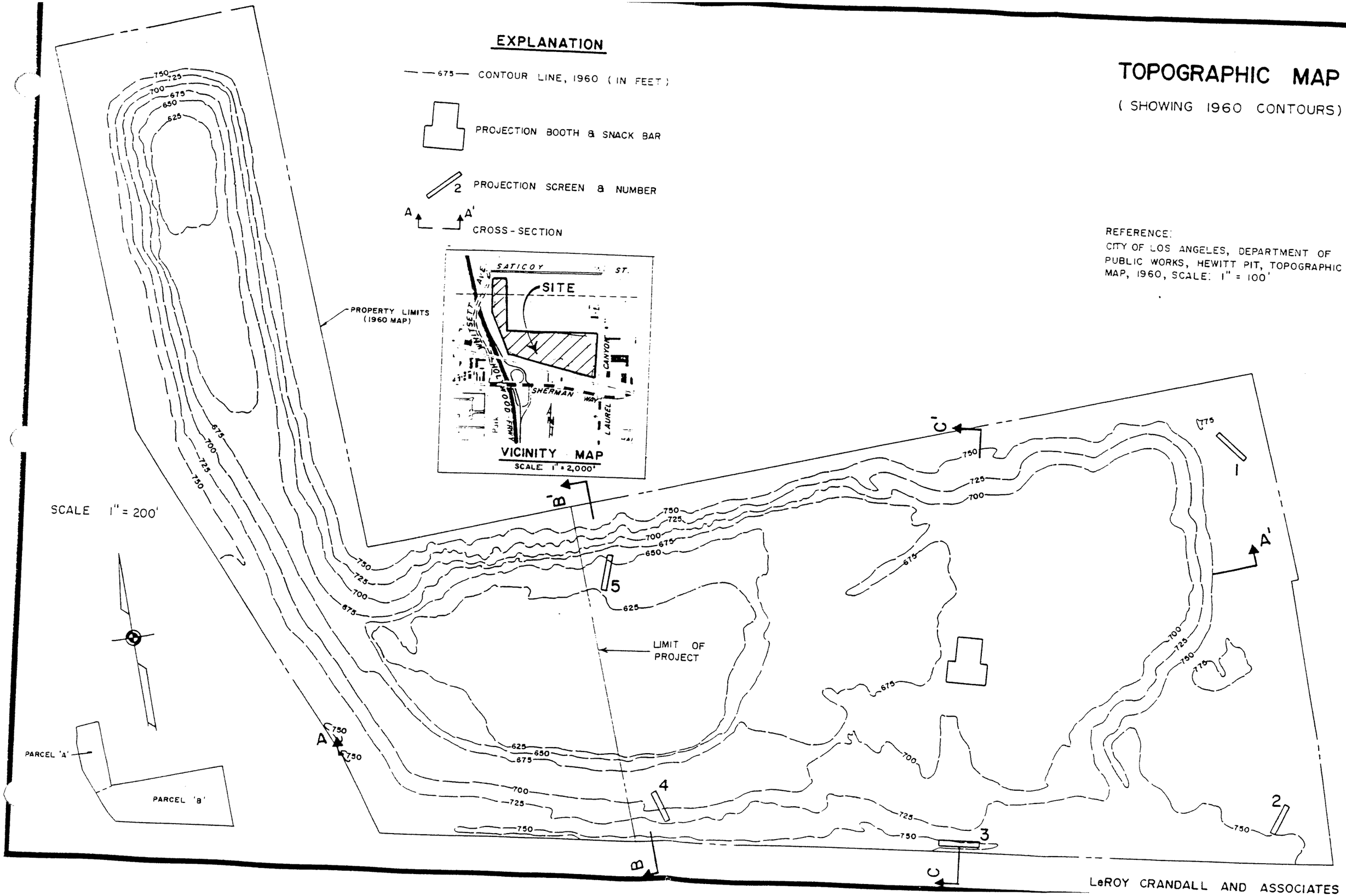
SECTIONS

LeROY CRANDALL AND ASSOCIATES

TOPOGRAPHIC MAP

(SHOWING 1960 CONTOURS)

REFERENCE:
CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS, HEWITT PIT, TOPOGRAPHIC MAP, 1960, SCALE: 1" = 100'

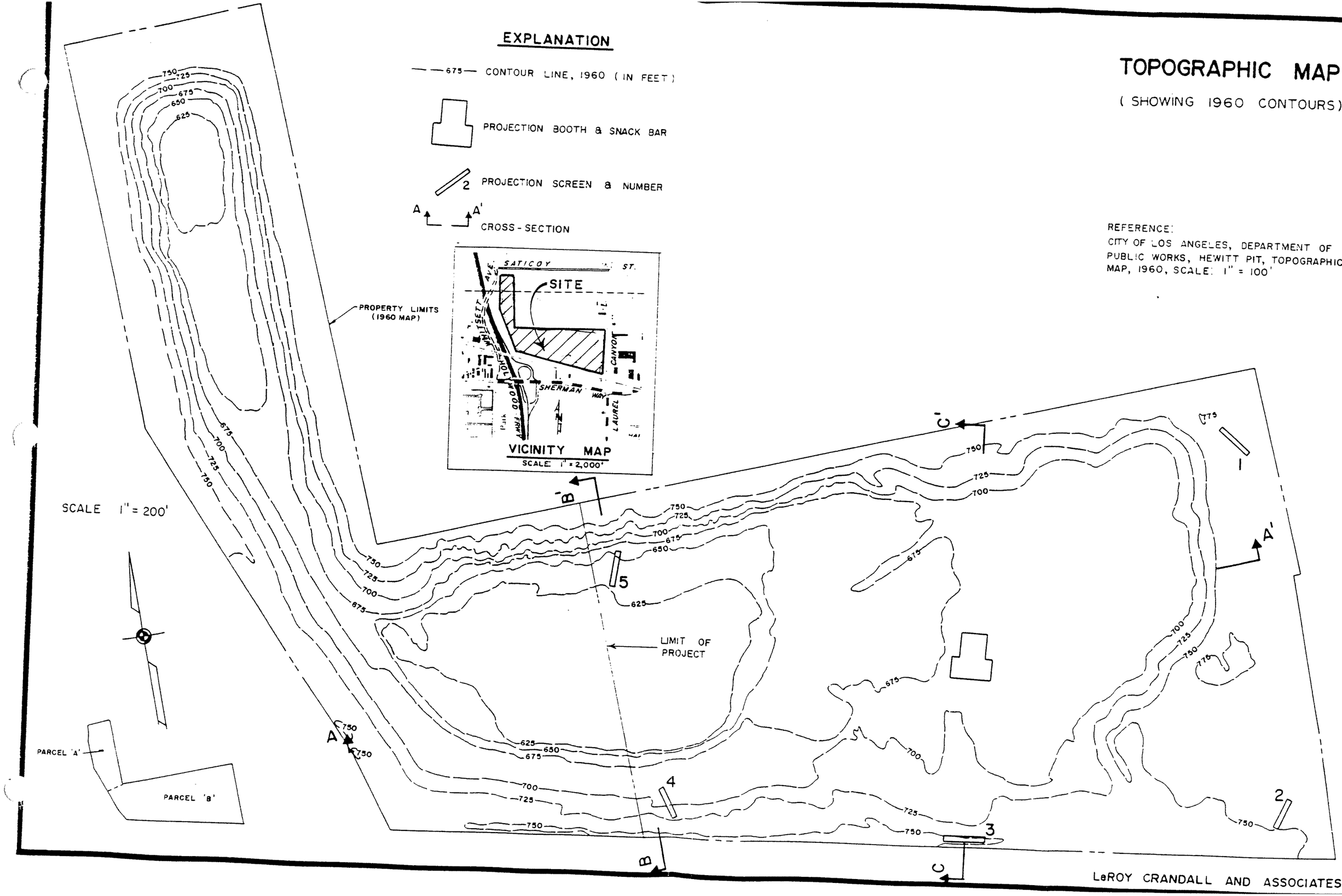


LeROY CRANDALL AND ASSOCIATES

TOPOGRAPHIC MAP

(SHOWING 1960 CONTOURS)

REFERENCE:
CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS, HEWITT PIT, TOPOGRAPHIC MAP, 1960, SCALE: 1" = 100'



LeROY CRANDALL AND ASSOCIATES

ANTICIPATED LONG-TERM SETTLEMENT

PROPOSED LAUREL CANYON
5-PLEX DRIVE-IN
NEWHALL SANITARY LANDFILL SITE

EXPLANATION

— 10 — LINE OF EQUAL SETTLEMENT (IN FEET)

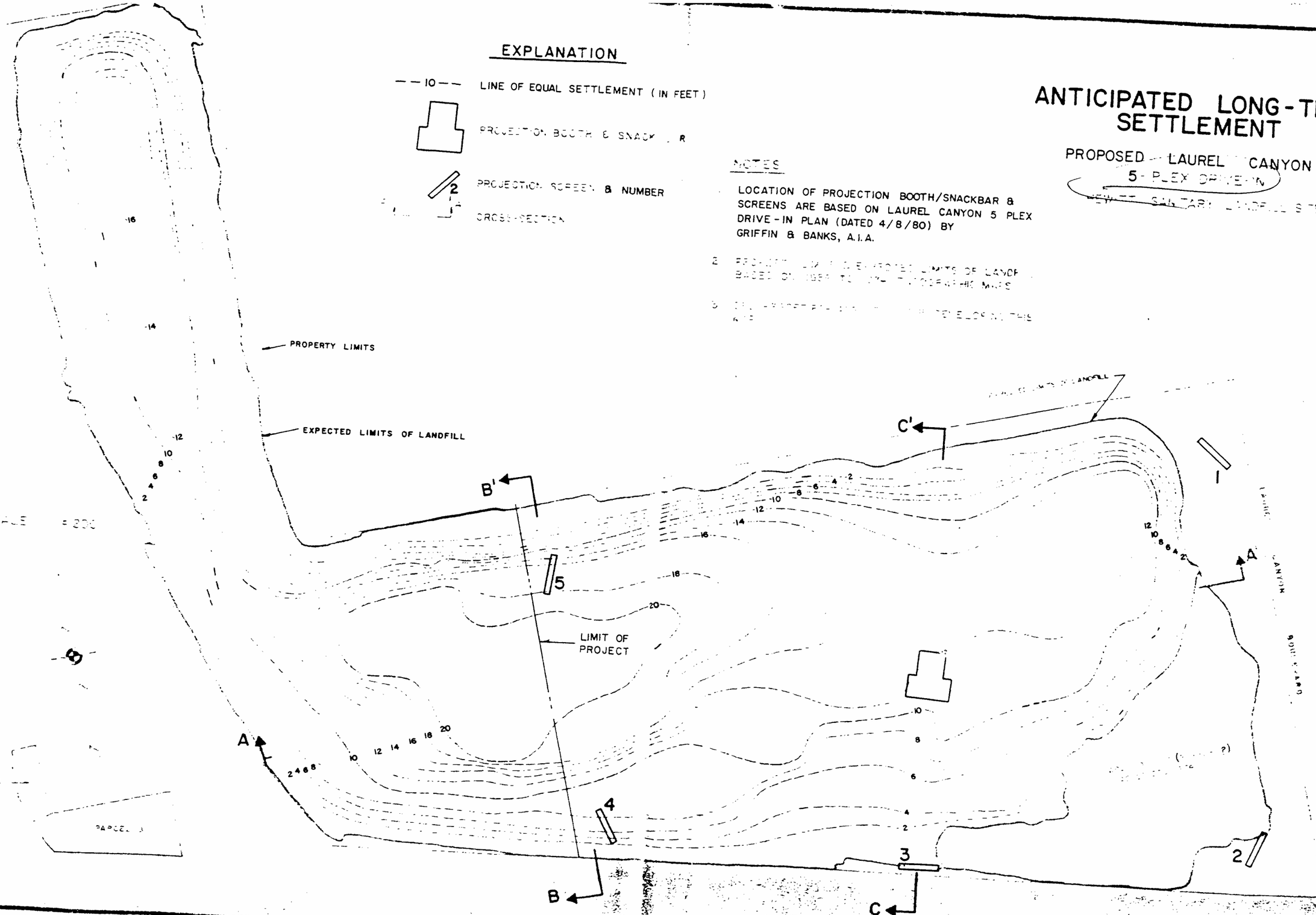
PROJECTION BOOTH & SNACKBAR

2 PROJECTION SCREEN & NUMBER

CROSS-SECTION

NOTES

1. LOCATION OF PROJECTION BOOTH/SNACKBAR & SCREENS ARE BASED ON LAUREL CANYON 5 PLEX DRIVE-IN PLAN (DATED 4/8/80) BY GRIFFIN & BANKS, A.I.A.
2. PROJECTION [illegible] LIMITS OF LANDF[illegible] BASED ON [illegible] TOPOGRAPHIC MAPS
3. [illegible] ELOPMENT THE [illegible]



LeROY CRANDALL AND ASSOCIATES

PLATE 3

Appendix J

Appendix J
Various Environmental Permitting, Hewitt Landfill (Laurel Canyon Facility)

CDM

City of Los Angeles
Department of Public Works
Bureau of Sanitation
Industrial Waste Operations

Permit No: 7
Class: No Fee
For Bureau Use

APPLICATION FOR SANITARY LANDFILL PERMIT

1) Firm Name: Valley Reclamation Co.

2) Type of Business: Landfill, Hewitt

3) Installation Address: 7245 Laurel Canyon Blvd, North Hollywood

4) Mailing Address: 3200 San Fernando Road, Los Angeles, 90065 (213) 258-2777
Zip Phone

5) Legal description of property: No Fee

6) Surety Bond Number:

7) Surety Bond Expiration Date:

8) Name of Applicant or Representative of firm: George Cosby (Please Print) Valley Reclamation Co. Firm Affiliation

9) Signature: George Cosby Date: 1-14-83

DO NOT WRITE BELOW THIS LINE

10) Additional Information:

11) Recommended By: Kenneth B Kasmn Sup. San. Eng. Date: 5-11-83

12) Approved by: Robert M. Ryan Sr. San Engr. Date: 7/12/83

13) Applicant: A permit is issued subject to Section 66.15 of the City of Los Angeles Municipal Code and any Rules and Regulations as established by the Board of Public Works under authority granted in the Los Angeles Municipal Code.

14) Inclose Application Fee of: $4,000.00, made payable to: Dept. of Public Works, City of Los Angeles.

MAIL TO: Bureau of Sanitation, Room 1410, City Hall East, 200 N. Main Street, Los Angeles, California 90012

FOR ADDITIONAL INFORMATION: Phone No. 485-5347

#4 It is the financial responsibility of the facility operator to dispose of any prohibited materials. (Hazardous or suspected hazardous materials liquid, sludges, or infectious wastes) in a manner approved by County of Los Angeles Department of Health Services. The operator may then endeavor to recover any costs from the generator of the prohibited material.

1-18-86 GF

Initial Date

SCM 31/mas

STATE OF CALIFORNIA—THE RESOURCES AGENCY

GEORGE DEUKMEJIAN, Governor

CALIFORNIA WASTE MANAGEMENT BOARD

1020 NINTH STREET, SUITE 300
SACRAMENTO, CALIFORNIA 95814

OCT 18 1983

Valley Reclamation/Conrock Co.
P.O. Box 2950 Terminal Annex
Los Angeles, CA 90051

SUBJECT: Hewitt P.E. Landfill

Dear Mr. Cosby:

An inspection, authorized by SB 1346 (Presley, 1982), identified on the attached facility inspection sheet was made on the indicated date.

During the inspection your site was found to be in compliance with the State Minimum Standards for Solid Waste Handling and Disposal.

Thank you for your cooperation in this matter. If you have any questions please call Bob Karrasch at (916) 322-8414.

Sincerely,

John K. Bell

John K. Bell, Manager
Office of Permits, Enforcement
and Compliance

Attachment

cc: Tado Isomoto
Bureau of Sanitation

SW12-09 (REV. 6/81)

NOTICE OF INSPECTION
DISPOSAL SITE

LOCAL ENFORCEMENT AGENCY: Bureau of Sanitation Los Angeles City

INSPECTION DATE MM DD YY	REINSPECTION DATE MM DD YY	T-OUT	T-IN
7 26 83	(1021)		

FACILITY NAME: Hewitt Pit (CLOSED)

MAILING ADDRESS: VALLEY BLVD

INSPECTOR: Rio Karrasch

ALSO PRESENT: Ken Chase

RECEIVED BY:
Operator
Owner

Comments: NO GAS SAMPLES TAKEN
GAS EXTRACTION SYSTEM OPERABLE.

	V	C
(3011) RECORDS		
☐ ACCURATE WEIGHT/VOLUME RECORDS MAINTAINED 17636		
☐ ADEQUATE SUBSURFACE RECORDS MAINTAINED 17637		
☐ LOG OF SPECIAL OCCURRENCES MAINTAINED 17638		
☐ RECORDS AVAILABLE FOR INSPECTION 17639		
(3021) PERSONNEL		
☐ ADEQUATE NUMBER OF QUALIFIED PERSONNEL AVAILABLE 17646		
☐ PERSONNEL ADEQUATELY TRAINED 17647		
☐ ADEQUATE SUPERVISION PROVIDED 17648		
☐ SITE ATTENDANT AVAILABLE FULL-TIME OR AS DETERMINED BY LEA 17649		
(3031) SIGNS		
☐ IDENTIFICATION SIGNS AT EACH POINT OF ACCESS 17696		
☐ ENTRY SIGN STATES FEES, HOURS OF OPERATION, WASTES ACCEPTED/NOT ACCEPTED 17697		
☐ NON-HAZARDOUS UNATTENDED SITES HAVE SIGN WARNING USERS OF UNAVAILABILITY OF COMMUNICATION FACILITIES 17698		
(3041) SECURITY		
☐ ADEQUATE PERIMETER SECURITY, HAZARDOUS AREAS FENCED AND IDENTIFIED 17699		
(3051) ROADS		
☐ ACCESS ROADS HAVE SMOOTH SURFACE, MINIMIZE DUST AND TRACKING OF MUD, AND ALLOW ALL-WEATHER ACCESS 17668		
☐ INTERNAL ROADS IN SAFE CONDITION, PROVIDE ACCESS DURING INCLEMENT WEATHER, AND ARE PROVIDED WITH DIRECTIONS 17669		
(3071) SANITATION		
☐ ADEQUATE SANITARY FACILITIES AVAILABLE 17666		
☐ SAFE ADEQUATE DRINKING WATER AVAILABLE 17667		
(3081) COMMUNICATIONS		
☐ COMMUNICATION FACILITIES AVAILABLE WHERE HAZARDOUS WASTES ARE ACCEPTED 17689		
(3091) LIGHTING		
☐ LIGHTING ADEQUATE 17690		
(3101) SAFETY		
☐ SAFETY EQUIPMENT IN USE AND BEING WORN 17676		

	V	C
(3111) CONFINED UNLOADING		
☐ UNLOADING ADEQUATELY CONFINED 17678		
(3141) SPREADING/COMPACTING		
☐ SPREADING AND COMPACTION IN TWO-FOOT LAYERS 17677		
(3151) SLOPES/CUTS/GRADING		
☐ WORKING FACE SLOPES ALLOW EFFECTIVE COMPACTION. DEPTH OF CUTS AND SLOPES OF TRENCH SIDES AS APPROVED BY LEA 17678		
☐ FINAL SLOPES HAVE NEAT APPEARANCE AND ARE 1-3/4 : 1 OR FLATTER 17679		
☐ GRADING OF FILL SURFACES ADEQUATE 17719		
(3161) COVER		
☐ STOCKPILING OF COVER DOES NOT INTERFERE WITH OPERATIONS 17680		
☐ SUITABLE QUALITY AND SUPPLY OF COVER MATERIAL AVAILABLE 17681		
☐ COVER PROVIDED AT REQUIRED DEPTH AND FREQUENCY 17682		
☐ INTERMEDIATE COVER PROVIDED AT REQUIRED DEPTH AND FREQUENCY 17683		
☐ FINAL COVER PROVIDED AS REQUIRED 17684		
(3171) SALVAGING/PROCESSING		
☐ SCAVENGING PROHIBITED 17685		
☐ SALVAGING DOES NOT INTERFERE WITH OPERATIONS 17686		
☐ VOLUME REDUCTION AND ENERGY RECOVERY DO NOT INTERFERE WITH OPERATIONS OR CREATE HEALTH, SAFETY OR ENVIRONMENTAL PROBLEMS 17687		
☐ SALVAGING AND VOLUME REDUCTION CONFINED TO CLEARLY IDENTIFIED AREAS 17688		
☐ SALVAGE STORAGE LOCATION OR VOLUME AS APPROVED BY LEA, MINIMIZES FIRE, NUISANCE 17689		
☐ SALVAGE STORAGE TIME DOES NOT RESULT IN HEALTH OR FIRE PROBLEMS 17691		
☐ SALVAGED MATERIALS APPROVED BY LEA AND LOCAL HEALTH 17692		
(3181) NUISANCE		
☐ OPERATIONS DO NOT CREATE A PUBLIC NUISANCE 17701		
☐ FEEDING OF REFUSE TO ANIMALS FOR HUMAN CONSUMPTION PROHIBITED 17702		

	V	C
(3191) FIRE		
☐ FIRE CONTROL ADEQUATE 17703		
(3192) FIRE (P)		
☐ BURNING MATERIALS SPREAD AND EXTINGUISHED. LEA, SWMB NOTIFIED IMMEDIATELY OF FIRE NOT EXTINGUISHED IN 24 HOURS 17693		
(3201) LEACHATE		
☐ ADEQUATE STEPS TAKEN TO MONITOR, COLLECT, TREAT, AND DISPOSE OF LEACHATES 17704		
☐ NO WASTES IN DIRECT CONTACT WITH WATER EXCEPT AS APPROVED BY RWQCB 17705		
(3202) LEACHATE (P)		
☐ REFUSE COVERED WITH NEXT DAY'S REFUSE OR WITH SIX INCHES OF COMPACTED SOIL. TOTAL AREA OF EXPOSED REFUSE IS AS SPECIFIED FOR WET AND DRY SEASONS 17694		
(3211) GAS		
☐ GAS MONITORING AND CONTROL AS REQUIRED 17695		
(3221) DUST		
☐ DUST CONTROL ADEQUATE 17709		
(3231) VECTORS/BIRDS		
☐ VECTOR AND BIRD CONTROL ADEQUATE 17707		
☐ LIQUID PONDS MINIMIZE VECTOR PROPAGATION 17710		
(3232) VECTORS (P)		
☐ THRESHOLD VALUES FOR VECTOR POPULATIONS NOT EXCEEDED 17696		
(3241) DRAINAGE/EROSION		
☐ DRAINAGE AND EROSION CONTROL ADEQUATE 17708		
(3251) LITTER		
☐ LITTER CONTROL ADEQUATE 17711		
(3252) LITTER (P)		
☐ LITTER NOT ALLOWED TO MIGRATE OFF-SITE 17697		
(3261) NOISE		
☐ NOISE CONTROL ADEQUATE 17712		
(3271) ODOR		
☐ ODOR CONTROL ADEQUATE 17713		
(3272) ODOR (P)		
☐ AMBIENT AIR AT OR BEYOND FACILITY BOUNDARY IS NOT ODOROUS 17693		

	V	C
(3281) TRAFFIC		
☐ TRAFFIC CONTROL ADEQUATE WITHIN SITE. TRAFFIC MINIMIZES INTERFERENCE, SAFETY PROBLEMS, AND STACKING ON PUBLIC ROADS 17714		
(3291) EQUIPMENT		
☐ EQUIPMENT ADEQUATE IN TYPE, CAPACITY, AND NUMBER, AND IS ADEQUATELY MAINTAINED 17726		
☐ STANDBY EQUIPMENT AVAILABLE TO COMPLY WITH SEC. 17692 AND OTHER SECTIONS 17727		
(3301) MAINTENANCE		
☐ EFFECTIVE MAINTENANCE PROCEDURES AND PROGRAMS DEVELOPED AND UTILIZED 17731		
☐ ADEQUATE MONITORING AND REPAIR OF DETERIORATED CONDITIONS 17732		
(3311) CLOSURE		
☐ AFTER CLOSURE, IF LEACHATE, EXTENSIVE SURFACE CRACKING OR SETTLEMENT OCCURS, THE OWNER SHALL NOTIFY LEA AND SHALL MONITOR AND REPAIR SITE FOR A PERIOD OF 5YEARS OR LONGER 17734		
☐ UPON SITE CLOSURE, DETAILED DESCRIPTION MUST BE FILED WITH THE LEA AND WITH THE COUNTY RECORDER 17735		
(3321) SPECIAL WASTES		
☐ BURNING WASTES IMMEDIATELY SPREAD AND EXTINGUISHED IN SAFE AREA 17741		
☐ SITE ACCEPTS ONLY APPROVED HAZARDOUS WASTES AND TAKES PRECAUTIONS TO ELIMINATE OR CONTROL HARMFUL DUSTS, FUMES, MISTS, VAPORS, OR GASES 17742		
☐ LIQUID WASTES APPROVED BY RWQCB, LOCAL HEALTH ENTITY AND LEA 17743		
☐ DEAD ANIMALS ALLOWED BY LOCAL REGULATIONS 17744		
(3331) OTHER		
☐		

*V = Violation
C = Correction

DISTRIBUTION: WHITE — SWMB YELLOW — OPERATOR PINK — LEA

City of Los Angeles
Department of Public Works
Bureau of Sanitation
Industrial Waste Operations

Class:
Permit No: 19AR-007

For Bureau Use Only

APPLICATION FOR SANITARY LANDFILL PERMIT

1) Firm Name: VALLEY RECLAMATION COMPANY

2) Type of Business: Landfill - Hewitt

3) Installation Address: 7245 Laurel Canyon, North Hollywood
Zip Phone

4) Mailing Address: 3200 San Fernando Road, L.A. 90065 213 258 2777
Zip Phone

5) Legal description of property:

6) Surety Bond Number:

7) Surety Bond Expiration Date:

8) Name of Applicant or representative of firm: George Cosby (Please Print) Vice President Firm Affiliation

9) Signature: George Cosby Date: 12-7-85

DO NOT WRITE BELOW THIS LINE

10) Additional Information: All former permit conditions and requirements shall remain in force. Additional permit conditions are attached hereto (amended January 1985)

11) Recommended by: Sheila A. Malmquist Date: 12/30/85

12) Approved by: Robert M. Apelian Date: 12/31/85

13) Applicant: A permit is issued subject to Section 66.15 of the City of Los Angeles Municipal Code and any Rules and Regulations as established by the Board of Public Works under authority granted in the Los Angeles Municipal Code.

14) Enclose Application Fee of: made payable to: Dept. of Public Works, City of Los Angeles.

MAIL TO: Bureau of Sanitation, Room 1410, City Hall East, 200 N. Main Street, Los Angeles, California 90012

FOR ADDITIONAL INFORMATION: Phone No. 485-5347

An original and one copy of all the forementioned permit conditions are enclosed. After completely reviewing the entire permit and permit conditions, please sign and date the original permit in the space provided and initial and date each of the subsequent pages. The signed document should then be returned to the Bureau of Sanitation and the copy kept for your record.

If you have any questions regarding the permit or any of the new conditions, please call Mrs. Sheila Molyneux at (213) 485-5347.

Very truly yours

Delwin A Biagi

DELWIN A BIAGI,
Director

cc: Charles Coffee/w attachments
SCM 30/mas

BOARD OF
PUBLIC WORKS
COMMISSIONERS
MAUREEN A. KINDEL
PRESIDENT
HOMER F. BROOME JR
VICE PRESIDENT
EDWARD J. AVILA
STEVE HARRINGTON
ROYAL O. SCHWENDINGER

CITY OF LOS ANGELES
CALIFORNIA

TOM BRADLEY
MAYOR

DEPARTMENT OF
PUBLIC WORKS
BUREAU OF SANITATION
DELWIN A. BIAGI
DIRECTOR
STERLING C. BUESCH
HARRY M. SIZEMORE
ASSISTANT DIRECTORS
ROOM 1410 CITY HALL EAST
200 NORTH MAIN STREET
LOS ANGELES CA 90012
(213) 485-5112

JAN 09 1986

Valley Reclamation
3200 San Fernando Rd.,
Los Angeles, CA 90065

Attn: George Cosby

CITY OF LOS ANGELES SANITARY LANDFILL PERMIT NO. 19-AR-007

Enclosed is your 1986 City of Los Angeles Sanitary Landfill Permit and additional permit conditions established for your facility.

Two changes have been made to the monitoring requirements presently established for your facility.

The City Permit now requires that you use attachment "A" to submit information regarding monthly tonnage inflow. This form should be filled out each month in a manner such that all previous months information for the current calendar year is listed. This may be done by photocopying an original, however, the signature at the bottom must be an original signature each month. This report shall be submitted by the 15th of each month to:

Bureau of Sanitation
200 North Main Street
Room 1410, Stop 520
Los Angeles, CA 90012
Attn: Sheila Molyneux

A copy of the monthly report shall also be submitted to:

Mr. Charles Coffee
Solid Waste Management Program
Department of Health Services
2615 So. Grand Ave. Room 450
Los Angeles, CA 90007

California Waste Management Board
1020 Ninth Street, Suite 300
Sacramento, CA 95814
Attn: Robert Karrasch

The additional permit conditions established in March, 1985 have been amended and are attached. With the exception of this change all former permit conditions shall remain in force.

FROM THE DESK OF:

George Cosby

Permits

ADDITIONAL PERMIT CONDITIONS

Permit No. 19-AR-007
March 1985
(Amended January, 1986)

#1. Attachment "A" shall be used to submit, by the 15th of each month, information regarding monthly tonnage inflow. This form shall be filled out in a manner such that all previous months information for the current calendar year are listed. The signature must be original on each report submitted.

This report shall be submitted to:

Bureau of Sanitation
200 North Main Street
Room 1410, CHE, Stop 520
Attn: Sheila Molyneux

Charles Coffee
Solid Waste Management Program
2615 S. Grand Ave., Room 450
Los Angeles, CA 90007

California Waste Management Board
1020 Ninth Street, Suite 300
Sacramento, CA 95814
Attn: Robert Karrasch

#2 The operator shall supply, on or before December 1, preceding the permit year being applied for, a topographic survey of the entire site in a scale no smaller than 1" = 100'. The survey shall be taken no earlier than February of the year submitted.

#3. In the event that hazardous or suspected hazardous material, liquids, sludges or infectious wastes are brought to your facility you are hereby required to handle the situation as described below. Any negligence in handling the situation or obtaining the required information will be a violation of this permit condition and may result in the revocation of your permit.

A) If the driver that transported the material onto the facility is still on the premises

1.) Instruct him to stay until Bureau of Sanitation staff or County Health staff arrive at the facility, and

2.) Obtain the driver's license number and the vehicle number.

If the driver will not give the requested information or refuses to remain at the site, notify the Senior Industrial Waste Engineer at (213) 485-5347 immediately.

B) Barricade effected area with rope, effectively isolating the area.

C) Notify Senior Industrial Waste Inspector at (213) 485-5886.

D) Notify Charles Coffee of L.A. County Department of Health Services at (213) 744-3261.

_____
Initial Date

CONROCK

CHECK REQUEST

DATE August 29 19 79

TO South Coast Air Quality Management District

ATTENTION OF

ADDRESS 9150 Flair Drive
El Monte, CA 91731

ACCOUNT DISTRIBUTION
NUMBER →

IN PAYMENT OF: (CIRCLE INFORMATION BELOW WHICH SHOULD APPEAR ON VOUCHER)

	AMOUNT
Filing Fee - Application for permit to construct and Permit to operate (Valley Reclamation Co.) Existing Hauck electrically driven centrifugal blower to be replaced by 50 H.P. Aerovent blower. An identical Aerovent blower to be installed for standby use. Also, mist eliminator and automatic controls. (7245 Laurel Canyon Boulevard, Sun Valley)	$50.00

RETURN TO · FOR SPECIAL HANDLING	DATE WANTED	REQUESTED BY	APPROVED BY
Olive Caldwell	8-30-79		

31-10M 4-72

CONROCK

CHECK REQUEST

DATE August 29 19 79

TO South Coast Air Quality Management District

ATTENTION OF

ADDRESS

ACCOUNT DISTRIBUTION
NUMBER →

IN PAYMENT OF: (CIRCLE INFORMATION BELOW WHICH SHOULD APPEAR ON VOUCHER)

	AMOUNT
Filing Fee - Application for permit to construct and permit to operate - 3951 Tujunga Avenue, Sun Valley Valley Reclamation Co. Temporary Landfill Gas Collection and Flare System	$50.00

RETURN TO · FOR SPECIAL HANDLING	DATE WANTED	REQUESTED BY	APPROVED BY
Olive Caldwell	8-30-79		

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

APPLICATION FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE

PLEASE TYPE OR PRINT

APCD USE: 2-3 SEC | 4-5 TS | 6-12 IS NUMBER

1A. PERMIT TO BE ISSUED TO: VALLEY RECLAMATION CO.
BUSINESS LICENSE NAME OF ORGANIZATION THAT IS TO RECEIVE PERMIT

1B. NAME (OR NAMES) OF OWNER OR PRINCIPAL PARTNERS DOING BUSINESS AS (DBA) ABOVE ORGANIZATION

2A. MAILING ADDRESS: P.O. Box 2950 Terminal Annex, Los Angeles, CA 90051
NUMBER STREET CITY OR COMMUNITY STATE

2B. 90051 ZIP CODE

3A. EQUIPMENT LOCATION (IF SAME ENTER "SAME"): 7245 Laurel Canyon Boulevard, Sun Valley 91352
NUMBER STREET CITY OR COMMUNITY ZIP CODE

3B. Sherman Way
NEAREST INTERSECTING STREET

4A. CONTACT PERSON (INITIALS & NAME): Francis Kirk

4B. CONTACT PHONE NO. (AREA & NO.): (213) 258-2777

5. EQUIPMENT: APPLICATION IS HEREBY MADE FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:
Existing Hauck electrically driven centrifugal blower to be replaced by 50 h.p. Aerovent blower. An identical Aerovent blower to be installed for standby use. Also, mist eliminator and automatic controls. (Supersedes current open Appl. C-25962)

5B. PRIMARY AIR POLLUTION CONTROL EQUIP.: Waste gas burner

5C. SECONDARY AIR POLLUTION CONTROL EQUIP.: N.A.

5D. BOILER OPERATING CAPACITY N.A. (THOUSANDS OF BTU/HR.)

% BOILER STEAM USED FOR SPACE HEAT N.A.

6. IF THIS EQUIPMENT HAD A PREVIOUS WRITTEN PERMIT, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL OWNER THAT OPERATED THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.
NAME: Los Angeles By-Products Company
PREVIOUS PERMIT NUMBER: S.C.A.Q.M.D. Files

7. PERMIT APPLICATION: 13
- NEW CONSTRUCTION ☐ 1
- ALTERATION ☒ 2
- CHANGE OF LOCATION ☐ 3
- CHANGE OF OWNERSHIP ☐ 4

8. TYPE OF ORGANIZATION: 14
- CORPORATION ☒ 1
- PARTNERSHIP ☐ 2
- INDIVIDUAL OWNER ☐ 3
- LOCAL GOV'T. AGENCY ☐ 4
- STATE AGENCY ☐ 5
- FEDERAL AGENCY ☐ 6
- UTILITY ☐ 7

9. NO. OF EMPLOYEES AT THIS LOCATION: 1 (15-18)

10. AREA OF: 60 . 0 ACRES TO TENTHS

11. ESTIMATED COST OF EQUIPMENT OR ALTERATION:
BASIC EQUIPMENT $ 7,000.00 (25-31)
AIR POLLUTION CONTROL EQUIPMENT $ 5,000.00 (32-38)
ANNUAL MAINTENANCE COST OF CONTROL EQUIPMENT $ 500.00 (39-45)

12. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, WHAT IS
ESTIMATED STARTING DATE: 8/1/79
ESTIMATED COMPLETION DATE: 8/15/79

13. GENERAL NATURE OF BUSINESS: Gas migration control

14. PRINCIPAL PRODUCT: (46-55)

15. % ANNUAL THROUGHPUT BY QUARTERS:

DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
25 %	25 %	25 %	25 %
(56-57)	(58-59)	(60-61)	(62-63)

15A. DO YOU CLAIM CONFIDENTIALITY OF DATA? 64
- YES ☐ 1
- NO ☒ 2

IF YES, STATE NATURE OF DATA IN ITEM 29.

16. NORMAL OPERATING HOURS OF SUBJECT EQUIPMENT: (65-70)
- HOURS/DAY 24
- DAYS/WEEK 7
- WEEKS/YEAR 52

17. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:

18. OFFICIAL TITLE OF SIGNER: Operations Manager

19. TYPED OR PRINTED NAME OF SIGNER: Francis Kirk

20. PHONE NO.: (213) 258-2777

21. DATE:

APCD USE ONLY

STATE: 13-14	COUNTY 15-16	AQCR 19-20	CITY 21-24	NEDS I.D. NO. 25-28	DATE: 29-33
CS	4E00 LA, 9440 OR, 8420 RIV, 0700 SD	24 SCAB, 99 SEO			

C.R. 34-36	L.C. 37-38	SIC 39-42	IPP 43-44	ST. LIST NO. 45-49	ALPHR LIST NO. 50-57	EQUIP. CAT. NO.: 58-65
005, 011, SCB, SEO	(OMIT)					

APPLICATION NO. 17-18	PERMIT NO. 19-24	TYPE 25	WORK UNITS 26-29	ASSIGNMENT 30-31	CLASS 32
		B OR C	A/C P/O	UNIT ENGR	I I III 3

VALIDATION 33-37	FILING FEE 38-41	CHECK OR MONEY ORDER NO. 42-49
(1111)	$50.00	
	PERMIT FEE 50-53 $	CHECK OR MONEY ORDER NO. 54-61

Form 400A - REVISED 12-1-76. PRIOR VERSIONS NOT VALID

(Continued on reverse)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

APPLICATION FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE

PLEASE TYPE OR PRINT

APCD USE: 2-3 | 4-5 | 6-12 — SEC | YR | ID NUMBER

1A. PERMIT TO BE ISSUED TO: Valley Reclamation Co.
BUSINESS LICENSE NAME OF ORGANIZATION THAT IS TO RECEIVE PERMIT

1B. _____
NAME (OR NAMES) OF OWNER OR PRINCIPAL PARTNERS DOING BUSINESS AS (DBA) ABOVE ORGANIZATION

2A. MAILING ADDRESS: P.O. Box 2950 Terminal Annex, Los Angeles California
NUMBER STREET CITY OR COMMUNITY STATE

2B. 90051
ZIP CODE

3A. EQUIPMENT LOCATION (IF SAME ENTER "SAME"): 9351 Tujunga Avenue, Sun Valley 91352
NUMBER STREET CITY OR COMMUNITY ZIP CODE

3B. Tuxford Road
NEAREST INTERSECTING STREET

4A. CONTACT PERSON (INITIALS & NAME): Francis Kirk

4B. CONTACT PHONE NO. (AREA & NO.): (213) 258-2777

5. EQUIPMENT: APPLICATION IS HEREBY MADE FOR PERMIT TO CONSTRUCT AND PERMIT TO OPERATE THE FOLLOWING EQUIPMENT:
Temporary Landfill Gas Collection and Flare System
(Supersedes current open Appl. C-18236)

5B. PRIMARY AIR POLLUTION CONTROL EQUIP.: Motor-Blower (Vacuum Gas withdrawal) Flare

5C. SECONDARY AIR POLLUTION CONTROL EQUIP.:

6D. BOILER OPERATING CAPACITY N.A. (THOUSANDS OF BTU/HR.)

% BOILER STEAM USED FOR SPACE HEAT N.A.

8. IF THIS EQUIPMENT HAD A PREVIOUS WRITTEN PERMIT, STATE NAME OF CORPORATION, COMPANY, OR INDIVIDUAL OWNER THAT OPERATED THIS EQUIPMENT, AND STATE PREVIOUS AIR POLLUTION CONTROL DISTRICT PERMIT NUMBER.
N.A.
NAME — PREVIOUS PERMIT NUMBER

7. PERMIT APPLICATION: 13
- [X] NEW CONSTRUCTION 1
- [ ] ALTERATION 2
- [ ] CHANGE OF LOCATION 3
- [ ] CHANGE OF OWNERSHIP 4

8. TYPE OF ORGANIZATION: 14
- [X] CORPORATION 1
- [ ] PARTNERSHIP 2
- [ ] INDIVIDUAL OWNER 3
- [ ] LOCAL GOV'T. AGENCY 4
- [ ] STATE AGENCY 5
- [ ] FEDERAL AGENCY 6
- [ ] UTILITY 7

9. NO. OF EMPLOYEES AT THIS LOCATION: 1 (15-18)

10. AREA OF: 60.0 ACRES TO TENTHS

11. ESTIMATED COST OF EQUIPMENT OR ALTERATION:
BASIC EQUIPMENT $ 10,000.00 (25-31)
AIR POLLUTION CONTROL EQUIPMENT $ 10,000.00 (32-38)
ANNUAL MAINTENANCE COST OF CONTROL EQUIPMENT $ 200/mo. (39-45)

12. FOR THE NEW CONSTRUCTION, ALTERATION, TRANSFER OF OWNERSHIP OR LOCATION, WHAT IS
ESTIMATED STARTING DATE: ASAP
ESTIMATED COMPLETION DATE: 1 week after start

13. GENERAL NATURE OF BUSINESS: Gas Migration Control

14. PRINCIPAL PRODUCT: Landfill Gas (46-55)

15. % ANNUAL THROUGHPUT BY QUARTERS:

DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV
% (56-57)	50 % (58-59)	50 % (60-61)	% (62-63)

16A. DO YOU CLAIM CONFIDENTIALITY OF DATA? 64
- YES [ ] 1
- NO [X] 2

IF YES, STATE NATURE OF DATA IN ITEM 23.

16B. NORMAL OPERATING HOURS OF SUBJECT EQUIPMENT: (65-70)
HOURS/DAY 24
DAYS/WEEK 7
WEEKS/YEAR 12 (Study)

17. SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION:

18. OFFICIAL TITLE OF SIGNER: Operations Manager

19. TYPED OR PRINTED NAME OF SIGNER: Francis Kirk

20. PHONE NO.: (213) 258-2777

21. DATE:

APCD USE ONLY

STATE: 13-14 CS	COUNTY 15-18 4200 LA, 5440 OR, 8400 RIV, 9700 SB	AQCR 19-20 24 SCAB, 38 SED	CITY 21-24	NEDS I.D. NO. 25-28	DATE 29-33		
C.R. 34-36 005 SCB, 011 SED	L.C. 37-38 (OMIT)	SIC 39-42	IPP 43-44	ST. LIST NO. 45-49	ALPHA LIST NO. 50-57	EQUIP. CAT. NO. 58-65	
APPLICATION NO. 13-18	PERMIT NO. 19-24	TYPE 25 B OR C	WORK UNITS 26-29 A/C P/O	ASSIGNMENT 30-31 UNIT ENGR	CLASS 32 1 1 111 3		
VALIDATION 33-37 (111)		PILING FEE. 38-41 $	CHECK OR MONEY ORDER NO. 42-49				
		PERMIT FEE 50-53 $	CHECK OR MONEY ORDER NO. 54-61				

Form 400A - REVISED 12-1-76. PRIOR VERSIONS NOT VALID

(Continued on reverse)

PERMIT to OPERATE

9150 FLAIR DRIVE, EL MONTE, CALIFORNIA 91731

M 34113

on under this permit must be conducted in compliance with all information included with the initial application and the initial per
litions. The equipment must be properly maintained and kept in good operating condition at all times. In accordance with Rule 206
mit to Operate or copy must be posted on or within 8 meters of equipment.

O: VALLEY RECLAMATION CO.
RAT...: 7245 LAUREL CANYON BOULEVARD
NT SUN VALLEY, CALIFORNIA
AT:

APPL. NO. C-26764

NT DESCRIPTION AND CONDITIONS:

NDFILL GAS GATHERING AND FLARING SYSTEM CONSISTING OF:
FLARE, 12'-0" DIA. X 14'-6" H. WITH A PROPANE GAS PILOT BURNER.
EXHAUST SYSTEM WITH A 50 H.P. BLOWER AND A 50 H.P. STANDBY BLOWER VENTING 40 COLLECTION WELLS.

PAGE 1 OF 2 PAGES

al permit must be renewed by 01/01/84 unless the equipment is moved, or changes ownership. If billing for annual renewal fee
l.f) not received by expiration date, contact office above.

nit does not authorize the emission of air contaminants in excess of those allowed by 26 of the Health and Safety Code of the State of California or the Rules of the Air Management District. This permit cannot be considered as permission to violate existing linances, regulations or statutes of other government agencies.

XXXXXXXXX

VOID UNLESS VALIDATED

EXECUTIVE OFFICER

BY VIRGINIA MOY VM

DATE 10/27/83

76P235M-REV. 2-81

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 E. FLAIR DRIVE, EL MONTE, CA 91731

OCT. 27, 1983

	PERMIT NO(S)	APPLICATION NO(S)
VALLEY RECLAMATION CO. P.O. BOX 2950 TERMINAL ANNEX LOS ANGELES, CA 90051	M34113	C-26764

WYC ATTN: FRANCIS KIRK

ANSMITTED HEREWITH ARE THE PERMIT(S), LISTED ABOVE, AUTHORIZING YOU TO OPERATE THE SCRIBED EQUIPMENT IN COMPLIANCE WITH RULE 206.

RULE 206. A person granted a permit under Rule 203 shall not operate or use any equipment unless the entire permit to operate or a legible facsimile of the entire permit is affixed upon the equipment in such a manner that the permit number, equipment description, and the specified operating conditions are clearly ri le and accessible. In the event that the equipment is so constructed that ch ermit to operate or the legible facsimile cannot be so placed, the entire permit to operate or the legible facsimile of the entire permit shall be mounted so as to be clearly visible in an accessible place within 8 meters (26 FEET) of the equipment or as otherwise approved by the Executive Officer.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

CONTINUATION OF PERMIT NO. M 34113
(MUST BE DISPLAYED WITH PERMIT)

-CONDITIONS-

1. ONE SHUT-OFF VALVE MUST BE INSTALLED AT EACH WELL HEAD.

2. THE GAS COLLECTED MUST BE DELIVERED TO THE FLARE AND INCINERATED TO DESTROY THE ODOR.

3. A MAXIMUM OF 2,800 CFM OF LANDFILL GAS MAY BE BURNED IN THIS FLARE.

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive, El Monte, CA 91731

APPLICATION NUMBER:
133570

PERMIT TO CONSTRUCT

GRANTED AS OF 07/01/85

LEGAL OWNER OR OPERATOR

VALLEY RECLAMATION COMPANY
3200 SAN FERNANDO RD.
LOS ANGELES, CA 90065

ATTENTION: GARY G. GOELLNER

-LOCATED AT: 7361 LAUREL CANYON, N. HOLLYWOOD, CA-

The equipment described below and as shown on the approved plans and specifications and subject to the special condition, or conditions listed.

EQUIPMENT DESCRIPTION AND CONDITIONS:

MODIFICATION TO THE EXISTING LANDFILL GAS GATHERING AND FLARING SYSTEM CONSISTING OF:

1. FLARE, 12'-0" DIA. X 14'-6" H. WITH A PROPANE GAS PILOT BURNER.
2. EXHAUST SYSTEM WITH A 50 H.P. BLOWER AND A 50 H.P. STANDBY BLOWER VENTING 40 COLLECTION WELLS.
3. FORTY-FIVE COMBINATION PROBES/GAS MIGRATION CONTROL WELLS VENTING TO THE EXHAUST SYSTEM.

BY THE ADDITION OF A FOUR FOOT INNER SHROUD EXTENTION OF THE EXISTING FLARE.

Approval or denial of this application for permit to operate the above equipment will be made after an inspection to determine if the equipment has been constructed in accordance with the approved plans and specifications and if the equipment can be operated in compliance with all Rules of the South Coast Air Quality Management District.

Please notify MR. G. TURNER at 572-6151 when construction of equipment is completed.

This Authority to Construct is based on the plans, specifications, and data submitted as it pertains to the release of air contaminants and control measures to reduce air contaminants. No approval or opinion concerning safety and other factors in design, construction or operation of the equipment is expressed or implied.

This Permit to Construct shall serve as a temporary Permit to Operate provided the Executive Officer is given prior notice of such intent to operate.

This Permit to Construct will become invalid if the Permit to Operate is denied or if this application is cancelled. THIS PERMIT TO CONSTRUCT SHALL EXPIRE TWO YEARS FROM THE DATE OF FILING OF APPLICATING unless an extension is granted by the Executive Officer.

J. A. Stuart, Executive Officer

VM:rr

By VIRGINIA MOY
RECORDS SECTION

300344 Rev 1/84

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

CONTINUATION OF
PERMIT TO CONSTRUCT

DATE: 07/01/85

APPL. NO.: 133570

-CONDITIONS-

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT TO CONSTRUCT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. ALL LANDFILL GAS BEING COLLECTED BY THE SYSTEM MUST BE VENTED TO THE FLARES FOR COMBUSITON.

4. WHEN THE FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1,400°F MUST BE MAINTAINED IN THE FLARE STACK.

5. BY AUGUST 30, 1985, THE FLARE MUST BE EQUIPPED WITH A TEMPERATURE INDICATOR AND RECORDER WHICH MEASURES AND RECORDS FLARE GAS TEMPERATURE IN THE FLARE STACK.

6. BY AUGUST 30, 1985, THE FLARE MUST BE EQUIPPED WITH AN AUTOMATIC PILOT RE-START.

7. THE FLARE MUST BE EQUIPPED WITH A FLARE FAILURE ALARM WITH AN AUTOMATIC BLOWER SHUT-OFF SYSTEM.

8. A STATIC PRESSURE INDICATOR INSTALLED ACROSS THE GAS COLLECTION BLOWERS MUST BE MAINTAINED IN GOOD WORKING CONDITION AND MUST INDICATE STATIC PRESSURE IN INCHES OF WATER COLUMN.

9. BY AUGUST 30, 1985, A FLOW INDICATING DEVICE MUST BE INSTALLED IN THE LANDFILL GAS SUPPLY LINE TO THE FLARE TO MEASURE LANDFILL GAS FLOW RATE TO THE FLARE STATION.

10. EACH GAS COLLECTION WELL MUST BE EQUIPPED WITH A SHUT-OFF VALVE.

11. ANY BREAKDOWN OR MALFUNCTION OF THE LANDFILL GAS COLLECTION AND DISPOSAL SYSTEM RESULTING IN THE EMISSION OF RAW LANDFILL GAS MUST BE REPORTED TO THE SCAQMD DIRECTOR OF ENFORCEMENT WITHIN ONE HOUR AFTER OCCURRENCE AND IMMEDIATE REMEDIAL MEASURES MUST BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMSSIONS INTO THE ATMOSPHERE.

12. THE LANDFILL GAS ENTERING THE FLARES MUST BE ANALYZED MONTHLY FOR METHANE CONCENTRATION.

13. THE STATIC PRESSURE ACROSS THE BLOWER MUST BE MEASURED AND RECORDED MONTHLY.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

CONTINUATION OF
PERMIT TO CONSTRUCT

DATE: 07/01/85

APPL. NO.: 133570

-CONDITIONS CONT'D-

14. RECORDS OF THE ANALYSES AND MEASUREMENTS RESULTING FROM COMPLIANCE WITH ITEMS 12 AND 13 MUST BE SENT TO THE ATTENTION OF MR. FRED LETTICE, SUPERVISING ENGINEER, AT THE ABOVE ADDRESS MONTHLY.

15. ON OR BEFORE AUGUST 30, 1985, APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH SCAQMD TEST PROCEDURES AND FURNISH THE SCAQMD A WRITTEN RESULT OF SUCH PERFORMANCE TEST WITHIN 30 DAYS AFTER THE TEST IS CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TEST SHALL BE PROVIDED TO THE SCAQMD 7 DAYS PRIOR TO THE TEST SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL AT LEAST 21 DAYS PRIOR TO THE START OF THE TEST.

THE PERFORMANCE TESTS WILL INCLUDE, BUT WILL NOT BE LIMITED TO, A TEST OF THE INLET AND THE EXHAUST OF EACH DIFFERENTLY DESIGNED FLARE FOR:

1. METHANE
2. NON-METHANE HYDROCARBONS
3. OXIDES OF NITROGEN (OUTLET ONLY)
4. CARBON MONOXIDE
5. PARTICULATES (OUTLET ONLY)
6. SULFUR COMPOUNDS (INLET ONLY)
7. CARBON DIOXIDE
8. MOISTURE CONTENT
9. OXYGEN
10. FLOW RATE
11. QUALITATIVE IDENTIFICATION OF VINYL CHLORIDE, BENZENE AND TOLUENE USING A GAS CHROMATOGRAPHY/MASS SPECTROMETRY METHOD (GC/MS). QUANTITATIVELY ANALYZED EACH COMPOUND IDENTIFIED BY GC/MS FOR ITS VOLUME CONCENTRATION.
12. BTU CONTENT (INLET ONLY)

16. A DETAILED DRAWING OF THE FLARE AS IT WAS BUILT AND A DRAWING INDICATING ALL WELL LOCATIONS AND HEADER SYSTEMS SHALL BE SUBMITTED TO THE DISTRICT BY JUNE 21, 1985.

Submitted
6-24-85

CITY PLANNING COMMISSION

DANIEL P. GARCIA
PRESIDENT
WILLIAM G. LUDDY
VICE-PRESIDENT
ROBERT J. ABERNETHY
SAM BOTWIN
SUZETTE NEIMAN

RAMONA HARO
SECRETARY

ROOM 503, CITY HALL
485-5071

CITY OF LOS ANGELES

CALIFORNIA

TOM BRADLEY
MAYOR

DEPARTMENT OF
CITY PLANNING
ROOM 561 CITY HALL
200 N. SPRING ST.
LOS ANGELES, CA 90012-4856

KENNETH C. TOPPING
DIRECTOR

KEI UYEDA
DEPUTY DIRECTOR

(213) 485-5073

CITY OF LOS ANGELES

NOTICE OF APPLICATION FOR DETERMINATION OF GENERAL PLAN CONSISTENCY

Los Angeles City Property Owner:

The enclosed copy of an Application for Determination of General Plan Consistency is mailed to you pursuant to City Ordinance No. 159,748. The Ordinance was adopted in response to a court decision which mandates consistency between zoning and the planned land use as indicated in the City's adopted Community Plans.

The enclosed application was filed on a property in your area. The determination indicates the staff's interpretation of whether or not the applicant's proposal is permitted by the adopted community plan. If the project conforms to the general plan and the existing zoning, it may proceed. If it does not, no building permit will be issued. If you believe the staff made a mistake in its interpretation of the community plan, you may file an appeal to the City Planning Commission before the end of the 14-day appeal period indicated on the accompanying form.

APPEAL CRITERIA: The applicant or interested party may appeal the determination ONLY IF they believe that the Planning Department staff was in error in its interpretation of the plan. Hardship, compatibility with adjacent land uses or disagreement with the project is not a basis for determining a project's consistency with the adopted plan.

Such appeal must be filed on forms which are available from the Public Counters of the City Planning Department. A fee is required for filing such an appeal. If an appeal is filed, you as a property owner in the immediate area will be notified of the public hearing for consideration of the appeal.

If you have any questions, please call (213) 485-7826.

CP-7742 (9/2/86)

AN EQUAL EMPLOYMENT OPPORTUNITY

(Not applicable to this Appendix)

MARKET DATA SUMMARY

Los Angeles County Self Storage Facilities

ITEM	LOCATION	DATE	PRICE	AREA	BLDG	YEAR	GR INC	EXPENSES	NET INC	$/SF	$/UNIT	GIM	CAPRATE
1	92-A5	4/1/87	$2,800,000	167200	59812	1979	$437,824	-	-	$46.81	$4,819	6.40	-
2	73-C1	12/23/86	$425,000	19820	7618	1973	-	-	-	$55.79	$11,806	-	-
3	29-B6	12/31/86	$3,600,000	138956	66855	1974	-	-	-	$53.81	$5,660	-	-
4	92-A5	12/8/86	$6,500,000	549291	188154	1979	-	-	-	$34.81	$25,192	-	-
5	91-C6	12/31/86	$1,508,500	107158	55682	1983	-	-	-	$27.09	$3,566	-	-
6	87-C6	11/18/86	$1,425,000	79788	29920	1974	$204,652	$36,502	$168,150	$47.63	$3,760	6.96	11.80
7	68-F3	8/13/86	$3,490,000	249163	80108		$521,413	$126,925	$363,833	$43.57	$3,490	6.69	10.43
8	86-00	1/15/86	$2,900,000	128066	63758	1986	$432,835	$125,435	$307,400	$45.48	$4,309	6.70	10.60
9	88-F3	11/12/85	$1,650,000	97832	48060	1976	$217,440	$43,488	$169,003	$34.33	$2,727	7.59	10.24
10	16-C3	10/2/85	$4,052,000	93654	61071	1978	-	-	-	$66.36	$5,097	-	-
11	39-A3	Current	$7,650,000	171191	157143	1986	$969,138	$203,800	$765,338	$48.68	$6,174	7.89	10.00

EXHIBIT D

198
1

CITY OF LOS ANGELES

APPLICATION FOR DETERMINATION OF GENERAL PLAN CONSISTENCY
(Ordinance No. 159,748, Effective April 4, 1985)

Plan Consistency Case No. PC- 89 - 0002

Property Description

Address: 7245 LAUREL CYN BL.

Legal: Lot 1 Block _____ Tract 22668

Major Cross Streets SHERMAN WAY & SATICOY ST
Community Plan North Hollywood
Council District No. 7
District Map No. 144B4 P.C. Map No. 399

Existing Zone/Height District M2-1 Lot Area 200,000 ☐
Existing Use/DU's (How many units) 2 OFFICE TRAILERS
Existing units to remain? Yes (X) No ( )

Proposed Project: OFFICE BLDG

Residential: Total number of dwelling units (Existing and Proposed) ____

No. of dwelling units with less than four habitable rooms ____
No. of dwelling units with four habitable rooms ____
No. of dwelling units with more than four habitable rooms ____

Commercial or Industrial: Total floor area (Sec. 12.21.1A5) 4,000 ☐

Height of project 9'-0" No. of stories 1 No. of parking spaces 8

Owner's
Name Los Angeles Auto Salvage, Inc
Address 7245 Laurel Canyon
City North Hollywood Zip 91605
Daytime phone no. (818) 786-2220

Applicant/Representative's
Name MARQUE CONTRACTING
Address P.O. Box 44117
City SYLMAR CA Zip 91342
Daytime phone no. (818) 362-4831

The foregoing statements and answers herein contained and the information on the attached plans are true in all respects and correct to the best of my knowledge and belief.

Owner's Signature Steven M Gilman for Los Angeles Auto Salvage Date 1/9/89

IMPLICATION OF THIS DETERMINATION: If the project is deemed CONSISTENT with the adopted community plan and existing zoning, it may proceed and qualifies for building permit application processing. If it is deemed INCONSISTENT, it may not proceed and does not qualify for building permit processing.

FOR PLANNING STAFF ONLY

Date application filed 1-10-89

Initials [illegible]

CP-7271 (5/88)

CITY OF LOS ANGELES

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No. of dwelling units with more than four habitable rooms ____

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Owner's
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City North Hollywood Zip 91605
Daytime phone no. (818) 786-2220

Applicant/Representative's
Name MARQUES CONTRACTING
Address PO Box 44117
City SYLMAR CA Zip 91342
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FOR PLANNING STAFF ONLY

Date application filed 1-10-89

Initials [illegible]

CP-7271 (5/88)

CITY PLANNING COMMISSION

DANIEL P. GARCIA
PRESIDENT
WILLIAM G. LUDDY
VICE-PRESIDENT
ROBERT J. ABERNETHY
SAM BOTWIN
SUZETTE NEIMAN

RAMONA HARO
SECRETARY

ROOM 503, CITY HALL
485-5071

CITY OF LOS ANGELES

CALIFORNIA

TOM BRADLEY
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200 N. SPRING ST.
LOS ANGELES, CA 90012-4856

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KEI UYEDA
DEPUTY DIRECTOR

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CITY OF LOS ANGELES

NOTICE OF APPLICATION FOR DETERMINATION OF GENERAL PLAN CONSISTENCY

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The enclosed application was filed on a property in your area. The determination indicates the staff's interpretation of whether or not the applicant's proposal is permitted by the adopted community plan. If the project conforms to the general plan and the existing zoning, it may proceed. If it does not, no building permit will be issued. If you believe the staff made a mistake in its interpretation of the community plan, you may file an appeal to the City Planning Commission before the end of the 14-day appeal period indicated on the accompanying form.

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If you have any questions, please call (213) 485-7826.

RECEIVED
MAR 16 1989
CALMAT PROPERTIES

CP-7742 (9/2/86)

AN EQUAL EMPLOYMENT OPPORTUNITY – AFFIRMATIVE ACTION EMPLOYER

STORM WATER POLLUTION PREVENTION AND EMERGENCY RESPONSE PLAN

INSURANCE AUTO AUCTIONS
7245 Laurel Canyon Boulevard
North Hollywood, CA 91605

At IAA, the prevention of pollution to storm water and waterways and the safety of all employees and visitors are of prime importance. The IAA Storm Water Pollution Prevention and Emergency Response Plan was developed to ensure that all employees know about our specific work hazards and how to mitigate and prevent spill events and protect themselves in an emergency. We will ensure that all employees receive the information and training necessary to participate in and adhere to our Plan.

Following are details regarding IAA's hazardous materials and the emergency response procedures that will be strictly adhered to.

1. **Hazmat Containers on the Premises:**
   a. Propane: One 1,150 gal. above-ground storage tank outside by the auction area
   b. Used oil: One 55 gal. drum

2. **Associated Hazards:**
   a. Propane –
      1) Extremely flammable
      2) Contact with skin may cause frostbite
      3) May form explosive mixture with air
      4) Inhalation of vapors may cause slight dizziness or asphyxiation
      5) Vapors may be explosive. Vapors are heavier than air and may collect at low levels.

Firefighting Procedures: Eliminate all sources of ignition. Call 911 and let the 911 operator hang up first to ensure that s/he has all the information s/he needs. Provide the size of the tank and what gas is contained in it (propane). Shut off the source of gas, if possible. If the flame is impinging on the container, withdraw all people and evacuate the vicinity immediately.

b. Used Oil
   1) May burn although it is not readily ignitable
   2) Inhalation of vapors may cause slight dizziness, asphyxiation, or irritation of the upper respiratory tract
   3) Eye and skin contact may cause irritation

Firefighting procedures: Oil will not burn unless preheated. Use a Class B fire extinguisher. Do not use a direct stream of water. Oil will float and can be reignited on the surface of the water.

3. HazMat Container Labels:

All hazardous material containers:

a. Will identify the specific hazardous material contained therein, and
b. Will be labeled with the appropriate warning, e.g., explosive, flammable, etc.

4. Employee Training:

a. IAA will properly and thoroughly instruct all personnel in the safe methods of storage and handling of all hazardous materials and in the operation and maintenance of equipment to prevent the discharges and spills of it.
b. The instructions will highlight and describe known spill events and/or failures, contributing factors, and precautionary measures.
c. All personnel will be trained in safety and emergency response procedures before they may handle or be exposed to any hazardous materials.
d. Refresher training will be conducted at least annually.

5. Hazardous Materials Emergency Prevention Measures:

a. All IAA above-ground storage tanks will have bollards placed around them to protect them from being struck by forklifts and other vehicles.
e. The storage areas shall be protected against tampering and trespassers with a security fence.
f. The storage areas shall be kept free of weeds, debris, and other combustible material.

6. HazMat Delivery:

a. Delivery contractors are responsible for meeting Department of Transportation requirements for fuel transfers.

b. No delivery will be made without an IAA operator being present during the entire procedure.
c. All engines will be shut off during delivery.

8. Small Spills:

a. Whenever transmission fluid, oil, diesel fuel, gasoline and/or any other hazardous material is spilled, in any amount, these spills will be immediately and thoroughly absorbed with spill absorbent.
b. Only employees that have received spill clean-up training are authorized to perform this task.
c. In case of contact, immediately flush eyes and/or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and thoroughly clean before reuse.
d. An adequate supply of spill absorbent will be maintained on the facilities at all times.
e. The location of the spill absorbent supply will be communicated to all employees.
f. A neon yellow "SPILL ABSORBENT" sign will be posted on the wall where the absorbent is stored.

9. Used Spill Absorbent Disposal:

The used spill absorbent must be accumulated in separate approved containers before being transported by a regulated professional hazardous waste hauler.

The used spill absorbent containers must:

a. Be labeled "Hazardous Waste"
b. Specify what material they contain
c. State the date accumulation began
d. Be kept closed except when adding or removing the waste
e. Be stored at least 50 feet from the property line
f. Be inspected weekly for leaks and any other defects

APPENDIX B

SITE PHOTOGRAPHS

Appendix K

Appendix K
Environmental Data Resources
GeoCheck Reports

CDM

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Appendix L

Appendix L
Regulatory Correspondence Concerning the North Hollywood Operable Unit

CDM

February 25, 1994

Richard A. Dongell, Esq.
RADCLIFF, ROSE & FRANDSEN
777 South Figueroa Street
40th Floor
Los Angeles, California 90017

Re: Pick Your Part Auto Wrecking Property
11201 Pendleton Street
Sun Valley, CA 91352

Dear Mr. Dongell:

You have requested on behalf of your client Pick Your Part Auto Wrecking ("Pick Your Part") that CalMat Co. ("CalMat") confirm its present understanding and intent regarding the manner in which Pick Your Part's involvement in the San Fernando Valley Superfund litigation will affect its obligations to CalMat under the promissory note serving as financing for Pick Your Part's purchase of the property referred to above.

Preliminarily, please note that this letter is a statement of intent only. It does not constitute or memorialize a contract, a legally binding agreement, an option, an offer, or any other kind of legally binding instrument. Nor is it intended to create nor to be taken as

GIBBS, GIDEN, LOCHER, FLEMING & ACRET
ATTORNEYS AT LAW
ONE CENTURY PLAZA, 34TH FLOOR
2029 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-3039
TELEPHONE (310) 552-3400
FACSIMILE (310) 552-0805

.ENNETH C. GIBBS
JOSEPH M. GIDEN
WILLIAM D. LOCHER
JACK W. FLEMING
GLENN E. TURNER, III
SHERMAN S.M. WONG
GERALD A. GRIFFIN
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GARY E. SCALABRINI
HOLLIS TAYLOR
JOSEPH GERI
MATTHEW P. KANNY
DANA M. RUDNICK
JILL R. SCHECTER

OF COUNSEL
JAMES ACRET
JOHN H. STEPHENS

February 25, 1994

OUR FILE NO.: 0812.074

BY FACSIMILE TRANSMISSION TO 213 258 1583

Brian W. Ferris, Esq.
Division Counsel
CalMat Co.
P.O. Box 2950
Los Angeles, CA 90051

Re: San Fernando Valley Area 1 - North Hollywood Operable Unit
EPA Superfund Site I.D. Nos. 59 and N1
Los Angeles County, California

Dear Brian:

Transmitted herewith is my revision of the letter of intent Pick Your Part has requested. Please telephone me as soon as possible to discuss it.

Yours very truly,

Barry C. Vaughan
for GIBBS, GIDEN, LOCHER, FLEMING & ACRET

Pick Your Part has requested that CalMat agree to the refinancing of Pick Your Parts' promissory note to CalMat which is secured by a deed of trust encumbering the subject property. Pick Your Part has also requested that CalMat as part of this refinancing advance any moneys paid by Pick Your Part in settlement of the claims of the United States Environmental Protection Agency ("EPA") and the State of California ("the State") against Pick Your Part and CalMat with respect to the North Hollywood Operable Unit ("NHOU") of the Superfund Site. Pick Your Part is, as you know, obligated to indemnify, defend and hold CalMat harmless from such claims attributable to the Pick Your Part property.

DRAFT

This will serve to confirm that it is CalMat's present intent to agree to the refinancing of the promissory note and to advance the sum to be paid by Pick Your Part in settlement of the EPA's and the State's NHOU claims, subject to the conditions that the terms of the refinancing are acceptable to CalMat and that the amount of the payments to the EPA and the State, and the terms of the settlements with the EPA and the State, are acceptable to CalMat.

If you have any question or comments regarding the foregoing, please do not hesitate to call.

Very truly yours,

Brian W. Ferris
Assistant General Counsel
CalMat Co.

February 25, 1994

Richard A. Dongell, Esq.
RADCLIFF, ROSE & FRANDSEN
777 South Figueroa Street
40th Floor
Los Angeles, California 90017

Re: Pick Your Part Auto Wrecking Property
11201 Pendleton Street
Sun Valley, CA 91352

Dear Mr. Dongell:

You have requested on behalf of your client Pick Your Part Auto Wrecking ("Pick Your Part") that CalMat Co. ("CalMat") confirm its present understanding and intent regarding the manner in which Pick Your Part's involvement in the San Fernando Valley Superfund litigation will affect its obligations to CalMat under the promissory note serving as financing for Pick Your Part's purchase of the property referred to above.

DRAFT

Preliminarily, please note that this letter is a statement of intent only. It does not constitute or memorialize a contract, a legally binding agreement, an option, an offer, or any other kind of legally binding instrument. Nor is it intended to create nor to be taken as establishing any rights in any third party or to be relied upon by any third party for any purpose whatsoever. Furthermore, this letter is not to be taken as an exhaustive or comprehensive statement of all aspects of the situation, or all the considerations, involving the San Fernando Valley Superfund Site ("Superfund Site") and the Pick Your Part property. Finally, this letter is strictly confidential.

Subject to these caveats, this will serve to confirm the following.

Pick Your Part

establishing any rights in any third party or to be relied upon by any third party for any purpose whatsoever. Furthermore, this letter is not to be taken as an exhaustive or comprehensive statement of all aspects of the situation, or all the considerations, involving the San Fernando Valley Superfund Site ("Superfund Site") and the Pick Your Part property. Finally, this letter is strictly confidential.

Subject to these caveats, this will serve to confirm the following.

Pick Your Part has requested that CalMat agree to the refinancing of Pick Your Part's promissory note to CalMat which is secured by a deed of trust encumbering the subject property. Pick Your Part has also requested that CalMat as part of this refinancing advance any moneys paid by Pick Your Part in settlement of the claims of the United States Environmental Protection Agency ("EPA") and the State of California ("the State") against Pick Your Part and CalMat with respect to the North Hollywood Operable Unit ("NHOU") of the Superfund Site. Pick Your Part is, as you know, obligated to indemnify, defend and hold CalMat harmless from such claims attributable to the Pick Your Part property.

This will serve to confirm that it is CalMat's present intent to agree to the refinancing of the promissory note and to advance the sum to be paid by Pick Your Part in settlement of the EPA's and the State's NHOU claims, subject to the conditions that the terms of the refinancing are acceptable to CalMat and that the amount of the payments to the EPA and the State, and the terms of the settlements with the EPA and the State, are acceptable to CalMat.

If you have any question or comments regarding the foregoing, please do not hesitate to call.

Very truly yours,

Brian W. Ferris
Assistant General Counsel
CalMat Co.

RADCLIFF, ROSE & FRANDSEN

LAWYERS

WASHINGTON, D.C. OFFICE
4TH FLOOR
3050 K STREET, N.W.
WASHINGTON, D.C. 20007
TELEPHONE (202) 944-9200

FORTIETH FLOOR
777 SOUTH FIGUEROA STREET
LOS ANGELES, CALIFORNIA 90017-5800
TELEPHONE (213) 614-1990

FACSIMILES:
LOS ANGELES: (213) 489-9263
WASHINGTON, D.C.: (202) 328-5834
SAN FRANCISCO: (415) 989-5465
HONOLULU: (808) 534-6203

SAN FRANCISCO OFFICE
SUITE 1475
88 KEARNY STREET
SAN FRANCISCO, CALIFORNIA 94108
TELEPHONE (415) 399-8393

HONOLULU OFFICE
FIVE WATERFRONT PLAZA
FOURTH FLOOR
500 ALA MOANA BOULEVARD
HONOLULU, HAWAII 96813
TELEPHONE (808) 529-7400

February 23, 1994

VIA FACSIMILE
(213) 258-1583

U.S. MAIL

Brian W. Ferris, Esq.
CalMat Co.
Division Counsel -- Properties
Assistant Secretary
3200 San Fernando Road
Los Angeles, CA 90065

Re: Pick Your Part Auto Wrecking
Property: 11201 Pendleton Street
Sun Valley, CA 91352

Dear Mr. Ferris:

Thank you for speaking with me yesterday regarding Pick Your Part Auto Wrecking's obligations to CalMat under the Promissory Note financing Pick Your Part Auto Wrecking's purchase of the above-referenced property.

Attached please find a draft of the letter we discussed concerning the agreement in principle reached between Pick Your Part Auto Wrecking ("Pick Your Part") and CalMat regarding the financing of any amount Pick Your Part agrees to contribute on behalf of Pick Your Part and CalMat in settlement of the San Fernando Valley Area I Superfund Site.

Please review the attached letter and communicate any suggestions or changes so that we may revise the letter accordingly.

Thank you for your continued cooperation in this matter.

Very truly yours,

Richard A. Dongell of
RADCLIFF, ROSE & FRANDSEN

Enclosure

cc: Barry Vaughn (by fax, w/encl.)

GIBBS, GIDEN, LOCHER, FLEMING & ACRET
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OF COUNSEL
JAMES ACRET
JOHN H. STEPHENS
BARRY C. VAUGHAN
LARRY T. LASNIK
PEGGY A. GERBER

OUR FILE NO. 812.074

October 13, 1993

BY FEDERAL EXPRESS

David B. Glazer, Esq.
Environmental Enforcement Section
Environmental and Natural Resources Division
UNITED STATES DEPARTMENT OF JUSTICE
301 Howard Street, Suite 870
San Francisco, CA 94105

Re: San Fernando Valley Area 1 - North Hollywood Operable Unit
EPA Superfund Site I.D. Nos. 59 and N1
Los Angeles County, California

Dear Mr. Glazer:

Thank you for yesterday's letter. Enclosed herewith please find my signature to the tolling extension agreement executed on behalf of CalMat Co. I look forward to receiving a copy of the fully executed agreement once it has been signed by all the parties.

Thank you for your courtesy and cooperation.

Yours very truly,

Barry C. Vaughan
for GIBBS, GIDEN, LOCHER, FLEMING & ACRET

cc: CalMat Co.

FOR CALMAT CO.

By: _____ Date: 10/13/93

BARRY C. VAUGHN
Attorney for CalMat Co.

STATE OF CALIFORNIA—ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, Governor

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
400 P Street, 4th Floor
P.O. Box 806
Sacramento, CA 95812-0806

(916) 322-6996

July 29, 1993

RECEIVED
AUG 06 1993
GIBBS, GIDEN, LOCHER & FLEMING

Mr. A. Frederick Gerstell
President
Calmat Co.
3200 San Fernando Road
Los Angeles, California 92805

SAN FERNANDO VALLEY GROUNDWATER BASIN, AREA 1

Dear Mr. Gerstell:

Pursuant to authority contained in section 25358.3 of the Health and Safety Code, the State Department of Health Services, predecessor to the Department of Toxic Substances Control ("Department"), determined that there was a release or substantial threat of a release of hazardous substances (as defined by Health and Safety Code section 25316) from the site known as the San Fernando Valley Groundwater Basin, Area 1, North Hollywood Operable Unit, located in Los Angeles County, California ("Site").

Beginning on or about July, 1987, the Department undertook response actions at the Site pursuant to sections 25355.5 and 25358.3 of the Health and Safety Code. Under section 25360 of the Health and Safety Code and section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA"), 42 U.S.C. section 9607(a), responsible parties may be held liable for all costs incurred by the Department (including interest) in responding to any release or threatened release of hazardous substances at the Site. Such costs may include, but are not limited to, expenditures for investigation, planning, response, enforcement activities, oversight of response actions that are performed by parties other than the Department or its contractors, and operation and maintenance of monitoring systems.

Responsible parties under CERCLA include current and former owners or operators of a facility, persons who arranged for treatment and/or disposal of any hazardous substances found at the facility, and persons who accepted hazardous substances for transport and selected the site or facility to which the hazardous substances were delivered. The Department has evaluated evidence in connection with its investigation of the Site, and determined that you, as an owner or operator of the Site, are a potentially responsible party ("PRP").

recycled paper

On or about July 16, 1993 the United States Environmental Protection Agency ("EPA") notified you that you are a party who may be liable for money expended by the EPA, the Department, and the Los Angeles Department of Water and Power, for response actions at the Site, including payment of the ten percent share paid by the Department for response actions funded by the Hazardous substance Superfund, established under subchapter A of chapter 98 of Title 26 of the United States Code. The EPA also provided you with a list of the parties considered to be PRPs at the Site, in order to facilitate coordination among PRPs regarding an allocation of liability or settlement with the EPA and the Department.

The cost of the response actions incurred by the Department and related to the Site, through December 31, 1992, is approximately $544,853.25, as detailed in the enclosed Summary by Activity Reports. This statement of expenditures is preliminary, and does not limit the Department from providing a revised figure if additional costs are identified.

In accordance with section 25360 of the Health and Safety Code and section 107(a) of CERCLA, 42 U.S.C. section 9607(a), demand is hereby made for payment of the above amount plus any and all interest recoverable under section 107 of CERCLA and any other provisions of law.

The Department anticipates that additional funds may be expended on the Site. Whether the Department funds the entire response action or simply incurs costs by overseeing the parties conducting the response activities, you are potentially liable for the expenditures plus interest.

Pursuant to CERCLA section 107(a), 42 U.S.C. section 9607(a), interest on past costs incurred shall accrue from the date of this demand; interest on future costs shall accrue from the date of expenditure. Interest rates are variable and the rate applicable on any unpaid amounts for any fiscal year is the same as is specified for interest on investments of the Hazardous Substance Superfund.

The Department is not required by CERCLA to issue a written demand for recovery of prejudgment interest. However, the date a written demand is made may be used by a court in determining the date from which prejudgment interest begins to accrue.

Remittance must be made payable to the "Department of Toxic Substances Control" and attached to one copy of the enclosed Invoice. Please send your remittance to:

Department of Toxic Substances Control
Cashiers/Accounting
400 P Street, 4th Floor
P.O. Box 806
Sacramento, California 95812-0806

If you wish to discuss your liability with the Department, please contact me, in writing, no later than thirty (30) calendar days after the date of this letter. You may also reach me by telephone at the number above.

If you fail to respond to this demand within thirty (30) calendar days, the Department will conclude that you have declined to reimburse the Department for its response costs. Consequently, the Department may pursue civil litigation against you, pursuant to section 25360 of the Health and Safety Code and section 107(a) of CERCLA, 42 U.S.C. section 9607(a).

Very truly yours,

JAMES R. CUTRIGHT
Acting Chief Counsel

Steve Koyasako

Steve Koyasako
Staff Attorney

Enclosures

cc: Mr. Donald A. Robinson
Deputy Attorney General
300 South Spring Street, Suite 5212
Los Angeles, California 90013
(w/o encls.)

Mr. Hamid Saebfar
Acting Chief
Site Mitigation Branch
Region 3/Glendale
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201
(w/o encls.)

Mr. Tom Mintz
Assistant Regional Counsel
U. S. Environmental Protection Agency, Region IX
Office of Regional Counsel (RD-3-3)
75 Hawthorne Street
San Francisco, California 94105
(w/o encls.)

a300287.wk1

SAN FERNANDO VALLEY, BASINWIDE
Project 300287
SUMMARY BY ACTIVITY
July 1, 1991 Thru December 31, 1992

March 9, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
91/92 EXPENDITURES (CALSTARS)				
REMEDIAL INVESTIGATIONS/FEASIBILITY STUDY (PCA 14125)				
AZ Sycip	Sept 91	Associate Waste Management Engineer	8.0	251.21
GL Schultz	Sept 91	Associate Waste Management Engineer	42.0	1,145.05
HT Saebfar	Sept 91	Senior Hazardous materials Specialist	6.0	186.83
AZ Sycip	Oct 91	Associate Waste Management Engineer	8.0	258.55
Gl Schultz	Oct 91	Associate Waste Management Engineer	1.0	27.27
GL Schultz	Nov 91	Associate Waste Management Engineer	21.0	572.52
		Subtotal	86.0	2,441.43
GL Schultz	Dec 91	Associate Waste Management Engineer	42.0	1,146.27
GL Schultz	Jan 92	Associate Waste Management Engineer	29.0	791.49
GL Schultz	Feb 92	Associate Waste Management Engineer	8.0	239.67
T Saebfar	Feb 92	Senior Hazardous Materials Specialist	3.0	91.99
GL Schultz	Mar 92	Associate Waste Management Engineer	21.0	600.50
HT Saebfar	Mar 92	Senior Hazardous Materials Specialist	8.0	234.15
GL Schultz	Apr 92	Associate Waste Management Engineer	5.0	142.98
HT Saebfar	Apr 92	Senior Hazardous Materials Specialist	2.0	58.56
GL Schultz	Apr 92	Associate Waste Management Engineer	4.0	98.69
GL Schultz	May 92	Associate Waste Management Engineer	14.0	419.41
HT Saebfar	May 92	Senior Hazardous Materials Specialist	2.0	61.33
GL Schultz	June 92	Associate Waste Management Engineer	6.0	251.64
HT Saebfar	June 92	Senior Hazardous Materials Specialist	5.0	146.37
		Total Direct Labor-PCA 14125	235.0	6,724.48
COST RECOVERY (PCA 14155)				
GL Schultz	Oct 91	Associate Waste Management Engineer	2.0	54.53
GL Schultz	Nov 91	Associate Waste Management Engineer	11.0	299.90
		Total Direct Labor-PCA 14155	13.0	354.43
		Total Direct Labor Charges	248.0	7,078.91
		Total Overhead Charges		24,066.88
		Contracts (455)		8.72
		Total 91/92 Charges	248.0	31,154.51

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SAN FERNANDO VALLEY, BASIN WIDE
Project 300287
SUMMARY BY ACTIVITY
July 1, 1991 Thru December 31, 1992

March 9, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

91/92 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
July, 1991--Nov, 1991			
HSA 455	279.59	3.3998	950.54
FED TRUST 890	2,516.27	3.3998	8,554.83
	2,795.86		9,505.37
Dec, 1991--June, 1992			
HSA 455	0.00	3.3998	0.00
FED TRUST 890	4,283.05	3.3998	14,561.51
	7,078.91		24,066.88

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SAN FERNANDO VALLEY, BASINWIDE
Project 300287
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July 1, 1991 Thru December 31, 1992

March 9, 1993
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
92/93 EXPENDITURES (CALSTARS)				
REMEDIAL INVESTIGATIONS/FEASIBILITY STUDY (PCA 11050)				
RB Hume	Oct 92	Associate Hazardous Materials Specialist	2.0	52.29
		Total Direct Labor-PCA 11050	2.0	52.29
PCA 14050				
RB Hume	Nov 92	Associate Hazardous Materials Specialist	7.0	182.96
		Total Direct Labor-PCA 14050	7.0	182.96
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (PCA 14125)				
HT Saebfar	July 92	Senior Hazardous Materials Specialist	4.0	128.64
RB Hume	July 92	Associate Hazardous Materials Specialist	4.0	105.78
RB Hume	Aug 92	Associate Hazardous Materials Specialist	8.0	211.55
HT Saebfar	Dec 92	Senior Hazardous Materials Specialist	3.0	95.19
		Total Direct Labor-PCA 14125	19.0	541.16
OPERATION AND MAINTENANCE (PCA 14150)				
RB Hume	Sept 92	Associate Hazardous Materials Specialist	14.0	370.21
		Total Direct Labor-PCA 14150	14.0	370.21
COST RECOVERY (PCA 14155)				
S Malmstrom	Sept 92	Accounting Technician	8.3	126.57
		Total Direct Labor-PCA 14155	8.3	126.57
		Total Direct Labor Charges	50.3	1,273.19
		Total Overhead Charges		4,328.60
		Contracts (890)		68.90
		Total 92/93 Expenditures	50.3	5,670.69

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SAN FERNANDO VALLEY, BASINWIDE
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July 1, 1991 Thru December 31, 1992

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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

92/93 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HSA 455	52.29	3.3998	177.78
FED TRUST 890	1,220.90	3.3998	4,150.82
	1,273.19		4,328.60

SUBTOTAL OF ALL COSTS	36,825.20
ADMINISTRATIVE CHARGES (Per Health and Safety Code, Section 25360) 10% of subtotal	3,682.52
TOTAL OF EXPENDITURES	40,507.72
Less MSCA Draws, 2nd Grant	(13,645.68)
Balance due to DTSC	26,862.04

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
SUMMARY BY ACTIVITY
January 1, 1984 Thru December 31, 1992

March 15, 1993
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

83/84 EXPENDITURES (ARMS)

No cost incurred.

Total Direct Labor Charges	0.0	0.00
Overhead Charges		0.00
Total 83/84 Charges	0.0	0.00

83/84 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HWCA 014	0.00	0.3250	0.00
HSA 455	0.00	0.3520	0.00
BOND 710	0.00	0.3250	0.00
FED TRUST 890	0.00	0.3250	0.00
	0.00		0.00

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
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January 1, 1984 Thru December 31, 1992

March 15, 1993
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

84/85 EXPENDITURES (ARMS)

No costs incurred.

Total Direct Labor Charges	0.0	0.00
Overhead Charges		0.00
Total 84/85 Charges	0.0	0.00

84/85 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HWCA 014	0.00	1.6500	0.00
HSA 455	0.00	1.6500	0.00
BOND 710	0.00	1.6500	0.00
FED TRUST 890	0.00	1.6500	0.00
	0.00		0.00

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

85/86 EXPENDITURES (ARMS)

No costs incurred.

Total Direct Labor Charges	0.0	0.00
Overhead Charges		0.00
Total 85/86 Charges	0.0	0.00

85/86 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HWCA 014	0.00	1.2128	0.00
HSA 455	0.00	1.2128	0.00
BOND 710	0.00	1.2128	0.00
FED TRUST 890	0.00	1.2128	0.00
	0.00		0.00

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
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January 1, 1984 Thru December 31, 1992

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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

86/87 EXPENDITURES (ARMS)

No costs incurred.

Total Direct Labor Charges	0.0	0.00
Overhead Charges		0.00
Total 86/87 Charges	0.0	0.00

86/87 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HWCA 014	0.00	1.1200	0.00
HSA 455	0.00	1.1200	0.00
BOND 710	0.00	1.1200	0.00
	0.00		0.00

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
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January 1, 1984 Thru December 31, 1992

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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
87/88 EXPENDITURES (CALSTARS)				
PRELIMINARY ASSESSMENT/SITE INVESTIGATION (PCA 11020)				
PC Peterson	July 87	Health Services Counsel II	14.0	417.18
JE McNally	July 87	Senior Hazardous Materials Specialist	33.0	849.53
JP Casey	July 87	Associate Hazardous Materials Specialist	64.0	1,335.72
Labor Adjustment	Aug 87			290.27
Labor Adjustment	Aug 87			106.28
PC Peterson	Sept 87	Health Services Counsel II	0.5	16.40
' Casey	Sept 87	Associate Hazardous Materials Specialist	4.0	87.46
.C Peterson	Oct 87	Health Services Counsel II	7.0	219.75
JP Casey	Oct 87	Associate Hazardous Materials Specialist	15.0	327.96
PC Peterson	Oct 87	Health Services Counsel II	7/87	(19.58)
PC Peterson	Oct 87	Health Services Counsel II	8/87 5.0	167.51
JP Casey	Nov 87	Associate Hazardous Materials Specialist	5.0	120.83
JP Casey	Dec 87	Associate Hazardous Materials Specialist	13.0	285.14
PC Peterson	Jan 88	Health Services Counsel II	1.5	52.06
JP Casey	Jan 88	Associate Hazardous Materials Specialist	5.0	125.50
JP Casey	Feb 88	Associate Hazardous Materials Specialist	16.0	381.50
JP Casey	Mar 88	Associate Hazardous Materials Specialist	7.0	151.73
PC Peterson	Apr 88	Health Services Counsel II	5.5	159.34
JP Casey	Apr 88	Associate Hazardous Materials Specialist	6.0	136.25
PC Peterson	May 88	Health Services Counsel II	9.0	293.51
JP Casey	May 88	Associate Hazardous Materials Specialist	9.0	204.38
PC Peterson	June 88	Health Services Counsel II	1.0	31.41
		Total Direct Labor-PCA 11020	220.5	5,740.13
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (PCA 11025)				
JE McNally	July 87	Senior Hazardous Materials Specialist	0.5	12.88
JE McNally	Aug 87	Senior Hazardous Materials Specialist	6.0	154.40
JP Casey	Nov 87	Associate Hazardous Materials Specialist	3.0	72.49
JG Danby	Dec 87	Associate Industrial Hygienist	3.0	70.22
TK Parker	Dec 87	Engineering Geologist	17.0	318.36
JP Casey	Dec 87	Associate Hazardous Materials Specialist	2.0	43.86
TK Parker	Jan 88	Engineering Geologist	8.0	175.21
JP Casey	Jan 88	Associate Hazardous Materials Specialist	1.0	25.09
TK Parker	Feb 88	Engineering Geologist	34.5	631.07
PC Peterson	Feb 88	Health Services Counsel II	1.5	47.86

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1

Project 300126

SUMMARY BY ACTIVITY

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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
JP Casey	Mar 88	Associate Hazardous Materials Specialist	4.0	86.71
TK Parker	Mar 88	Engineering Geologist	7.0	119.51
TK Parker	Mar 88	Engineering Geologist	2/88 Adj	101.73
JP Casey	Apr 88	Associate Hazardous Materials Specialist	1.0	22.71
TK Parker	Apr 88	Engineering Geologist	11.0	205.72
TK Parker	Apr 88	Engineering Geologist	3/88 Adj	16.64
JP Casey	May 88	Associate Hazardous Materials Specialist	5.0	113.55
TK Parker	May 88	Engineering Geologist	10.0	198.16
TK Parker	May 88	Engineering Geologist	4/88 Adj	15.07
TJ Miles	June 88	Associate Hazardous Materials Specialist	1.0	19.56
TK Parker	June 88	Engineering	35.0	606.87
		Total Direct Labor-PCA 11025	150.5	3,057.67
		Total Direct Labor Charges	371.0	8,797.80
		Overhead Charges		27,247.23
		Total 87/88 Charges	371.0	36,045.03

87/88 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HSA 455	2,357.81	3.1286	7,376.65
BOND 710	6,439.99	3.0855	19,870.59
	8,797.80		27,247.23

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
88/89 EXPENDITURES (CALSTARS)				
REMEDIAL INVESTIGATIONS/FEASIBILTIY STUDY (PCA 11025)				
			6/88 Adj	71.15
TK Parker	July 88	Engineering Geologist	5.0	108.16
TJ Miles	Aug 88	Associate Hazardous Materials Specialist		
		Total Direct Labor-PCA 11025	5.0	179.31
REMEDIAL ACTION (PCA 11045)				
PC Peterson	Aug 88	Health Services Counsel II	2.0	59.09
		Total Direct Labor-PCA 11045	2.0	59.09
RESPONSIBLE PARTY/ REDEDIAL ACTIONS PLAN (PCA 12035)				
L Levy	Nov 88	Staff Toxicologist	16.0	533.26
		Total Direct Labor-PCA 12035	16.0	533.26
PCA 14115				
JP Christopher	Aug 88	Staff Toxicologist	10.0	350.09
JP Christopher	Sept 88	Staff Toxicologist	1.0	35.50
L Hill	Dec 88	Information Officer I	1.0	24.55
		Total Direct Labor-PCA 14115	12.0	410.14
REMOVAL ACTIONS (PCA 14120)				
SH Tsumura	Aug 88	Associate Hazardous Materials Specialist	87.0	1,895.14
SH Tsumura	Sept 88	Associate Hazardous Materials Specialist	8/88 Adj	66.17
SH Tsumura	Sept 88	Associate Hazardous Materials Specialist	42.0	994.79
SH Tsumura	Oct 88	Associate Hazardous Materials Specialist	29.0	721.21
SH Tsumura	Nov 88	Associate Hazardous Materials Specialist	58.0	1,442.43
L Levy	Dec 88	Staff Toxicologist	4.0	120.58
SH Tsumura	Dec 88	Associate Hazardous Materials Specialist	12.0	285.17
		Subtotal	232.0	5,525.49

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
SUMMARY BY ACTIVITY
January 1, 1984 Thru December 31, 1992

March 15, 1993
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
SH Tsumura	Jan 89	Associate Hazardous Materials Specialist	41.0	1,013.68
SH Tsumura	Feb 89	Associate Hazardous Materials Specialist	53.0	1,249.42
SK Koyasako	Mar 89	Health Services Counsel II	3.0	102.38
SH Tsumura	Mar 89	Associate Hazardous Materials Specialist	28.0	645.07
SH Tsumura	Apr 89	Associate Hazardous Materials Specialist	14.0	371.02
		Total Direct Labor-PCA 14120	371.0	8,907.06

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (PCA 14125)

SH Tsumura	Aug 88	Associate Hazardous Materials Specialist	7/88 11.0	246.39
SH Tsumura	Aug 88	Associate Hazardous Materials Specialist	7/88 Adj	17.20
TK Parker	Aug 88	Engineering Geologist	7/88 4.0	78.37
TK Parker	Aug 88	Engineering Geologist	4.0	64.21
TK Parker	Sept 88	Engineering Geologist	8/88 Adj	13.80
		Subtotal	19.0	419.97
JE Crisologo	Mar 89	Waste Management Engineer	19.0	363.74
JE Crilologo	Apr 89	Waste Management Engineer	26.0	503.32
JE Crisologo	May 89	Waste Management Engineer	33.0	604.87
JE Crisologo	June 89	Waste Management Engineer	6.0	117.02
		Total Direct Labor-PCA 14125	103.0	2,008.92
		Total Direct Labor Charges	509.0	12,097.78
		Overhead Charges		47,466.99
		Travel 2nd qtr (710)		43.10
		Travel (455)		17.49
		Travel (890)		28.65
		Total 88/89 Charges	509.0	59,654.01

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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES

88/89 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
July 1988 - June 1989 HSA 455	1,257.30	4.0688	5,115.70
July 1988 - Dec 1988 HSA 455 (FED)	1,245.70	4.0688	5,068.49
July 1988 - June 1989 BOND 710	4,484.88	3.8363	17,205.35
July 1988 - Dec 1988 BOND 710 (FED)	3,069.75	3.8363	11,776.50
FED TRUST 890	2,040.15	4.0688	8,300.95
	12,097.78		47,466.99

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Project 300126
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
89/90 EXPENDITURES (CALSTARS)				
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (PCA 14125)				
JE Crisologo	July 89	Waste Management Engineer	40.0	889.42
JE Crisologo	Aug 89	Waste Management Engineer	22.0	472.01
JE Crisologo	Sept 89	Waste Management Engineer	16.0	360.13
JE Crisologo	Oct 89	Waste Management Engineer	7.0	150.19
JE Crisologo	Nov 89	Waste Management Engineer	10.0	241.37
JE Crisologo	Nov 89	Waste Management Engineer	10/89 Adj	3.17
JE Crisologo	Dec 89	Waste Management Engineer	42.0	958.39
JE Crisologo	Jan 90	Waste Management Engineer	10.0	247.66
JE Crisologo	Jan 90	Waste Management Engineer	12/89 Adj	26.95
JE Crisologo	Feb 90	Waste Management Engineer	17.0	446.99
JE Crisologo	Feb 90	Waste Management Engineer	1/90 Adj	10.99
JE Crisologo	Mar 90	Waste Management Engineer	43.0	944.23
JE Crisologo	Apr 90	Waste Management Engineer	11.0	270.09
JE Crisologo	Apr 90	Waste Management Engineer	3/90 Adj	41.98
JE Crisologo	May 90	Waste Management Engineer	27.0	670.95
JE Crisologo	June 90	Waste Management Engineer	34.0	762.24
		Total Direct Labor-PCA 14125	279.0	6,496.76
		Total Direct Labor Charges	279.0	6,496.76
		Overhead Charges		22,087.68
		Travel (890)		173.69
		Total 89/90 Charges	279.0	28,758.13

89/90 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
FED TRUST 890	6,496.76	3.3998	22,087.68

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
90/91 EXPENDITURES (CALSTARS)				
REMEDIAL ACTION PLANS (PCA 11065)				
AZ Sycip	Feb 91	Associate Waste Management Engineer	12.0	461.51
		Total Direct Labor-PCA 11065	12.0	461.51
REMEDIAL INVESTIGATIONS/FEASIBILITY STUDY (PCA 14125)				
JE Crisologo	July 90	Waste Management Engineer	17.0	409.99
JE Crisologo	Aug 90	Waste Management Engineer	28.0	610.97
HT Saebfar	Sept 90	Senior Hazardous Materials Specialist	2.0	64.94
JE Crisologo	Sept 90	Waste Management Engineer	41.0	1,037.35
JE Crisologo	Sept 90	Waste Management Engineer	8/90 Adj	26.32
HT Saebfar	Oct 90	Senior Hazardous Materials Specialist	7.0	216.64
JE Crisologo	Oct 90	Waste Management Engineer	14.0	400.94
HT Saebfar	Nov 90	Senior Hazardous Materials Specialist	4.0	136.61
JE Crisologo	Nov 90	Waste Management Engineer	31.0	1,229.28
JE Crisologo	Nov 90	Waste Management Engineer	9/90 Adj	22.35
HT Saebfar	Dec 90	Senior Hazardous Materials Specialist	4.0	134.32
HT Saebfar	Jan 91	Senior Hazardous Materials Specialist	3.0	110.62
JE Crisologo	Jan 91	Waste Management Engineer	18.0	470.81
HT Saebfar	Feb 91	Senior Hazardous Materials Specialist	3.0	116.45
JE Crisologo	Feb 91	Waste Management Engineer	7.0	208.03
JE Crisologo	Feb 91	Waste Management Engineer	1/91 Adj	16.97
AZ Sycip	Mar 91	Associate Waste Management Engineer	21.5	708.73
HT Saebfar	Mar 91	Senior Hazardous Materials Specialist	2.0	70.23
JE Crisologo	Mar 91	Waste Management Engineer	2.0	53.77
HT Saebfar	Apr 91	Senior Hazardous Materials Specialist	6.0	201.13
HT Saebfar	May 91	Senior Hazardous Materials Specialist	7.0	245.84
AZ Sycip	May 91	Associate Waste Management Engineer	9.0	302.99
AZ Sycip	June 91	Associate Waste Management Engineer	10.0	333.63
HT Saebfar	June 91	Senior Hazardous Materials Specialist	3.0	105.35
		Total Direct Labor-PCA 14125	239.5	7,234.26

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
REMEDIAL ACTION PLAN/RECORD OF DECISION (PCA 14135)				
AZ Sycip	Apr 91	Associate Waste Management Engineer	10.0	314.66
		Total Direct Labor-PCA 14135	10.0	314.66
COST RECOVERY/FEE ASSESSMENT (PCA 14155)				
C Calloway	Apr 91	Senior Accounting Officer Specialist	1.5	40.58
		Total Direct Labor-PCA 14155	1.5	40.58
		Total Direct Labor Charges	263.0	8,051.01
		Overhead Charges		27,371.82
		Travel (890)		189.84
		Contracts 2nd qtr (710)		149,270.00
		Total 90/91 Charges	263.0	184,882.67

90/91 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HSA 455	461.51	3.3998	1,569.04
FED TRUST 890	7,589.50	3.3998	25,802.78
	8,051.01		27,371.82

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SAN FERNANDO VALLEY GROUNDWATER, AREA 1
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EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
91/92 EXPENDITURES (CALSTARS)				
COST RECOVERY (PCA 11095)				
C Calloway	Jan 92	Senior Accounting Officer Specialist	1.5	40.44
		Total Direct Labor-PCA 11095	1.5	40.44
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (PCA 14125)				
: Sycip	July 91	Associate Waste Management Engineer	3.5	109.75
J Suzuki	July 91	Associate Hazardous Materials Specialist	3.0	79.07
GL Schultz	Aug 91	Associate Waste Management Engineer	33.0	908.87
GL Schultz	June 92	Associate Waste Management Engineer	4/92 4.0	114.38
		Total Direct Labor-PCA 11045	43.5	1,212.07
COST RECOVERY (PCA 14155)				
C Calloway	Aug 91	Senior Accounting Officer Specialist	0.5	13.46
C Calloway	Sept 91	Senior Accounting Officer Specialist	2.0	53.87
GL Schultz	Oct 91	Associate Waste Management Engineer	1.0	27.27
GL Schultz	Nov 91	Associate Waste Management Engineer	7.0	190.85
S Malmstrom	Jan 92	Accounting Technician	4.0	62.66
GL Schultz	Feb 92	Associate Waste Management Engineer	1.0	29.95
GL Schultz	Mar 92	Associate Waste Management Engineer	6.0	171.56
GL Schultz	May 92	Associate Waste Management Engineer	8.0	239.67
		Total Direct Labor-PCA 14155	29.5	789.29

a300126.wk1

SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
SUMMARY BY ACTIVITY
January 1, 1984 Thru December 31, 1992

March 15, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
		Total Direct Labor Charges	74.5	2,041.80
		Total Overhead Charges		6,941.71
		Contracts 1st qtr (710)		123,666.11
		Contracts (890)		632.12
		Contracts (455)		86.24
		Total 91/92 Charges	74.5	133,367.98

91/92 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
HSA 455	178.73	3.3998	607.65
	1,863.07	3.3998	6,334.07
	2,041.80		6,941.71

0126.wk1

SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
SUMMARY BY ACTIVITY
January 1, 1984 Thru December 31, 1992

March 15, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
92/93 EXPENDITURES (CALSTARS)				
COST RECOVERY (PCA 14155)				
GT Specter	Aug 92	Staff Services Analyst	1.0	20.86
S Malmstrom	Aug 92	Accounting Technician	15.0	236.34
C Calloway	Sept 92	Senior Accounting Officer Specialist	7.5	181.50
S Malmstrom	Sept 92	Accounting Technician	8.0	122.75
		Total Direct Labor-PCA 14155	31.5	561.45
		Total Direct Labor Charges	31.5	561.45
		Total Overhead Charges		1,908.82
		Contracts (455)		35.66
		Contracts (890)		947.80
		EDP Services (890)		360.42
		Total 92/93 Expenditures	31.5	3,814.15

92/93 OVERHEAD CALCULATIONS

FUND	DIRECT LABOR CHARGES	OVERHEAD RATE	OVERHEAD CHARGES
FED TRUST 890	561.45	3.3998	1,908.82

a300126.wk1

SAN FERNANDO VALLEY GROUNDWATER, AREA 1
Project 300126
SUMMARY BY ACTIVITY
January 1, 1984 Thru December 31, 1992

March 15, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
BOND INTEREST EXPENSE:		FY 83/84 3RD QTR. (0x.075x9.00)		0.00
		FY 83/84 4TH QTR. (0x.075x8.75)		0.00
		FY 84/85 1ST QTR. (0X.075X8.50)		0.00
		FY 84/85 2ND QTR. (0x.075x8.25)		0.00
		FY 84/85 3RD QTR. (0x.075x8.00)		0.00
		FY 84/85 4TH QTR. (0x.075x7.75)		0.00
		FY 85/86 1ST QTR. (0x.075x7.50)		0.00
		FY 85/86 2ND QTR. (0x.075x7.25)		0.00
		FY 85/86 3RD QTR. (0x.075x7.00)		0.00
		FY 85/86 4TH QTR. (0x.075x6.75)		0.00
		FY 86/87 1ST QTR. (0x.075x6.50)		0.00
		FY 86/87 2ND QTR. (0x.075x6.25)		0.00
		FY 86/87 3RD QTR. (0x.075x6.00)		0.00
		FY 86/87 4TH QTR. (0x.075x5.75)		0.00
		FY 87/88 1ST QTR. (9779.54x.075x5.50)		4,034.07
		FY 87/88 2ND QTR. (4804.46x.075x5.25)		1,891.77
		FY 87/88 3RD QTR. (5676.12x.075x5.00)		2,128.52
		FY 87/88 4TH QTR. (6050.46x.075x4.75)		2,155.48
		FY 88/89 1ST QTR. (9779.68x.075x4.50)		3,300.64
		FY 88/89 2ND QTR. (6102.35x.075x4.25)		1,945.12
		FY 88/89 3RD QTR. (14050.79x.075x4.00)		4,215.24
		FY 88/89 4TH QTR. (6646.76x.075x3.75)		1,869.40
		FY 89/90 1ST QTR. (0x.075x3.50)		0.00
		FY 89/90 2ND QTR. (0x.075x3.25)		0.00
		FY 89/90 3RD QTR. (0x.075x3.00)		0.00
		FY 89/90 4TH QTR. (0x.075x2.75)		0.00
		FY 90/91 1ST QTR. (0x.075x2.50)		0.00
		FY 90/91 2ND QTR. (149270.00x.075x2.25)		25,189.31
		FY 90/91 3RD QTR. (0x.075x2.00)		0.00
		FY 90/91 4TH QTR. (0x.075x1.75)		0.00
		FY 91/92 1ST QTR. (123666.11x.075x1.50)		13,912.44
		FY 91/92 2ND QTR. (0x.075x1.25)		0.00
		FY 91/92 3RD QTR. (0x.075x1.00)		0.00
		FY 91/92 4TH QTR. (0x.075x.75)		0.00
		FY 92/93 1ST QTR. (0x.075x.50)		0.00
		FY 92/93 2ND QTR. (0x.075x.25)		0.00
				60,641.99

'0126.wk1

SAN FERNANDO VALLEY GROUNDWATER, AREA 1

Project 300126

SUMMARY BY ACTIVITY

January 1, 1984 Thru December 31, 1992

March 15, 1993
Compiled by: Pamela Johnson
Data source: Employees names, hours, direct labor costs, and classifications--Labor Distribution by PCA.
Indirect costs, bond interest, and Administrative charges--Cost Analysis Workpapers.

EMPLOYEE	PERIOD	CLASSIFICATION	TIMESHEET HOURS	DIRECT LABOR CHARGES
		SUBTOTAL OF ALL COSTS		507,163.96
ADMINISTRATIVE CHARGES (Per Health and Safety Code, Section 25360) 10% of subtotal				50,716.40
TOTAL OF EXPENDITURES				557,880.36
		Less MSCA Draws, 1st Grant		(13,458.30)
		Less MSCA Draws, 2nd Grant		(28,430.85)
		Balance due to DTSC		515,991.21

3200 San Fernando Road, Los Angeles, California 90065

CALMAT CO. FACSIMILE

Fax No.: 213/258-1583

TO:	Barry Vaughan		
COMPANY:	Gibbs, Giden, Locher, Fleming & Acret	**FAX #:**	(310) 552-0805
FROM:	Paul Stanford	**DATE:**	7/23/93

Number of Pages, including cover page: 8

Call Cathy Kohke 213/258-2777, ext. 3216 regarding problems in transmittal.

The information contained in this telecopy message is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, or is the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

3200 San Fernando Road, Los Angeles, California 90065

CALMAT CO. FACSIMILE

Fax No.: 213/258-1583

TO: Rob Kindler

COMPANY: Cravath, Swaine & Moore

FAX #: (212) 765-1047

FROM: Paul Stanford

DATE: 7/23/93

Number of Pages, including cover page: 8
Call Cathy Kohlke 213/258-2777, ext. 3216 regarding problems in transmittal.

The information contained in this telecopy message is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, or is the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

SCHEDULE 3
Page 2

CALMAT CO & SUBSIDIARIES
DISCLOSURE OF ENVIRONMENTAL MATTERS

CONFIDENTIAL

The EPA has named the Company and approximately 15 other entities as "Potentially Responsible Parties" ("PRP's") under CERCLA in connection with alleged groundwater contamination at a site designated as the North Hollywood Operable Unit of the San Fernando Valley Area 1 Superfund Site. The EPA has advised the Company and the other PRP's that they may be jointly and severally liable for releases of hazardous substances, not only from properties they owned or operated, but also for area-wide groundwater contamination. One of the Company's corporate predecessors is in the chain of title of a property operated in the past as a landfill and alleged to be connected with the contamination. The property was sold to a third party in 1988. That party has also been named as a PRP.

No legal proceedings have been initiated by the EPA at this time, although proceedings are threatened at an early date unless settlement is reached. The EPA has demanded payment of $17,213,355 for costs incurred in evaluation and containment of the contamination. Because of uncertainty regarding the scope and source of the contamination and the likelihood of varying degrees of responsibility among various PRP's, the Company has not determined what portion of this amount it may be liable for should a settlement and allocation among the PRP's be negotiated. The Company has, at this time, no detailed factual information concerning actual contributions to the contamination, if any, from the site in question, has not yet had an opportunity to investigate possible defenses or insurance coverage which may be available to it, and has not investigated the possibility of recovery from other PRP's or third parties not named by the EPA as PRP's.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

VIA FEDERAL EXPRESS

July 16, 1993

Mr. A. Frederick Gerstell, President
CalNat Co.
3200 San Fernando Road
Los Angeles, CA 90065

Re: LIABILITY NOTICE AND DEMAND FOR PAYMENT OF COSTS
San Fernando Valley Area 1
North Hollywood Operable Unit
EPA Superfund Site I.D. Nos. 59 and N1
Los Angeles County, California

Dear Mr. Gerstell:

Pursuant to the authority contained in Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), as amended, 42 U.S.C. § 9604, the United States Environmental Protection Agency ("EPA") determined that there was a release or substantial threat of release of hazardous substances from the San Fernando Valley Area 1 Superfund Site, North Hollywood Operable Unit ("the Site") in Los Angeles County, California.

Also pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, EPA undertook response actions at the Site including but not limited to the following: site investigation and sampling; completion of an operable unit feasibility study and record of decision; design, construction, operation, and maintenance of an operable unit interim remedial action; and development of a basin-wide remedial investigation.

Under Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(a), responsible parties may be held liable for all costs incurred by the Government (including interest) in responding to any release or threatened release of hazardous substances at the Site. The definition of responsible parties, given in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), includes current and former owners or operators of a facility, persons who arranged for treatment and/or disposal of hazardous substances at the facility, and persons who accepted hazardous substances for transport and selected the site or facility to which the hazardous substances were delivered. As a past owner and/or operator,

Printed on Recycled Paper

EPA considers you to be a potentially responsible party ("PRP") with respect to the Site.

This letter specifies the costs that EPA has incurred at the Site and demands payment of these costs. A similar letter was sent to the other PRPs at the Site on March 16, 1993 and July 2, 1993. Since your potential liability is considered to be "joint and several," EPA is demanding the total amount of its costs from each PRP. You and the other PRPs may allocate among yourselves the costs to be paid to EPA. Allocations among PRPs are often based on such considerations as each PRP's level of involvement in industrial operations at the Site, the relative threat posed by each PRP's facility to human health or the environment, and the relative financial strength of each PRP. To facilitate coordination among PRPs regarding an allocation or settlement with EPA, we have enclosed a list of the PRPs who received a similar letter. While EPA may consider a comprehensive settlement proposal from a cohesive PRP group, EPA's resource constraints, unfortunately, do not allow us to enter into individual settlements for fractions of the total costs demanded.

EPA has incurred at least $16,801,295.43 in costs for response actions related to the Site as of April 30, 1992. Pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), demand is hereby made for payment of this amount plus any and all interest recoverable under Section 107 of CERCLA or any other provisions of law.

This statement of expenditures is preliminary, and does not limit EPA from providing a revised figure if additional costs are identified. EPA anticipates that additional funds may be expended on the Site. Whether EPA funds additional response actions or simply incurs costs by overseeing the parties conducting the response activities, you are potentially liable for the expenditures plus interest.

This figure represents only EPA's costs as of that date. It does not include costs incurred by the United States Department of Justice in regard to the Site. It also does not include the ten percent of the total remedial action costs paid by the State of California and the ten percent of the remedial action operation and maintenance costs paid by the Los Angeles Department of Water and Power ("LADWP"). The State or the LADWP may pursue separate cost recovery actions against you for repayment of their costs including their 10% cost shares.

In accordance with Section 107(a) of CERCLA, 42 U.S.C § 9607(a), interest on past costs incurred shall accrue from the date of this demand for payment, while interest on future costs shall accrue from the date of expenditure. The applicable interest rates on any unpaid amounts are the same as those determined by the Department of the Treasury each fiscal year for the

investments in the Hazardous Substance Superfund, established pursuant to CERCLA Title 26, Chapter 98, of the Internal Revenue Code. EPA is not required by CERCLA to issue a written demand for recovery of prejudgment interest. However, the date a written demand is made may be used by a court in determining the date from which prejudgment interest begins to accrue.

In the event that you file for protection in the Bankruptcy Court, EPA reserves its right to file a proof of claim or application for reimbursement of administrative expenses against the debtor's estate.

A check in the amount of $16,801,295.43 should be sent to the address below within thirty (30) calendar days of the date of receipt of this letter. The check should be made payable to the "U.S. EPA Hazardous Substance Superfund". The check and accompanying transmittal letter should clearly reference the identity of the Site (San Fernando Valley Area 1, North Hollywood Operable Unit, SSID Nos. 59 and N1) and should be sent to:

U.S. EPA — Region IX
ATTN: Superfund Accounting
P.O. Box 360863M
Pittsburgh, PA 15251

Please send a copy of the check and transmittal letter, and direct any questions you may have concerning matters discussed herein to:

Mr. Thomas P. Mintz
U. S. Environmental Protection Agency, Region IX
Office of Regional Counsel (RC-3-3)
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1333

EPA would like to extend to you the opportunity to settle this matter before litigation, in order to save both you and the federal government the burden and expense of litigation. We have arranged a meeting between EPA and the other PRPs to discuss the possibility of negotiating a comprehensive settlement. This meeting has been scheduled for July 22 at 10:30 in the morning at the law offices of Latham & Watkins at 633 West Fifth Street, Sixth Floor in Los Angeles. Please contact Mr. Mintz as soon as possible if you plan on attending.

This meeting will be the second between EPA and the other PRPs at the site. You did not receive a demand letter earlier or an invitation to the first meeting because EPA had not identified you as a PRP at that time.

If you fail to respond to this demand within thirty (30) calendar days, EPA will conclude that you have declined to reimburse the Hazardous Substance Superfund for Site expenditures. Consequently, EPA may pursue civil litigation against you, pursuant to Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(a).

Thank you for your attention to this matter.

Sincerely,

TA Kerr

for David B. Jones
Chief, Remedial Action Branch

Enclosure

DEMAND LETTER RECIPIENTS
San Fernando Valley Area 1
North Hollywood Operable Unit
As of July 16, 1993

Dan Burnham
Executive Vice-President
Allied-Signal Inc.
2525 West 190th Street
Torrance, CA 90504
March 16, 1993

Gregory M. Keough
Vice President
E/M Corporation
2801 Kent Avenue
West Lafayette, IN 47906
March 16, 1993

William Cooke
President
Fleetwood Machine Products, Inc.
11447 Vanowen Street
North Hollywood, CA 91605
March 16, 1993

William Cooke
Jerry Conrow
Co-Trustees
Amended Cooke Family Trust
23871 Madison Street
Torrance, CA 90505
March 16, 1993

Gordon N. and Peggy M. Wagner
Co-Trustees
Personal Privacy
March 16, 1993

Joseph W. Basinger
Personal Privacy
March 16, 1993

David Locklar
President
Hawker Pacific, Inc.
11310 Sherman Way
Sun Valley, CA 91352
March 16, 1993

Viggo Butler
President
Lockheed Air Terminal, Inc.
P.O. Box 7229
Burbank, CA 91510
March 16, 1993

Daniel M. Tellep
President
Lockheed Corporation
4500 Park Granada Boulevard
Calabasas, CA 91399
March 16, 1993

Niels Bruun-Andersen
Trustee
Erik and Else Bruun-Andersen Trust
6829 Farmdale Avenue
North Hollywood, CA 91605
March 16, 1993

Lou Fruchey
President
Pacific Steel Treating Company, Inc.
6829 Farmdale Avenue
North Hollywood, CA 91605
March 16, 1993

Greg Loughnane
Division President and General Manager
Waste Management Disposal Services of California, Inc.
Bradley Landfill & Recycling Center
9081 Tujunga Avenue, 2nd Floor
Sun Valley, CA 91352
July 2, 1992

A. Frederick Gerstell
President
CalMat Co.
3200 San Fernando Road
Los Angeles, CA 90065
July 16, 1993

C.D. Vangorden
President
Los Angeles By-Products Co.
1810 East 25th Street
Los Angeles, CA 90058
July 16, 1993

Glenn C. McElroy
President
Pick-Your-Part Auto Wrecking
1301 E. Orangewood
Anaheim, CA 92805
July 16, 1993

Sam Adlen
President
11590 Tuxford Street
Sun Valley, CA 91352
July 16, 1993

Adlin Wrecking
Your Pick Part

7/22/93 DRAFT

PRELIMINARY COST SUMMARY FOR NORTH HOLLYWOOD OPERABLE UNIT (NHOU)

I. ESTIMATED PAST COSTS (THROUGH APRIL 30, 1992)

TOTAL COSTS DIRECTLY RELATED TO THE NHOU SITE	$ 5,567,386	[1]
TOTAL AREA-WIDE/NON-OPERABLE UNIT SPECIFIC COSTS	12,883,041	[2]
TOTAL EXPENDITURES	$ 18,450,427	
PRIOR PROCEEDS RECEIVED	($ 1,237,072)	[3]
BALANCE/COST RECOVERY TOTAL	$ 17,213,355	[4]

II. PROJECTED FUTURE COSTS

NHOU FUTURE OPERATION & MAINTENANCE COSTS	$ 4,186,000	[5]
NHOU SOURCE IDENTIFICATION PROGRAM	1,200,000	[6]
TOTAL NHOU SPECIFIC PROJECTED FUTURE COSTS	$ 5,386,000	
AREA-WIDE WELL MONITORING	$ 2,000,000	[7]
AREA-WIDE FEASIBILITY STUDY	1,000,000	
TOTAL AREA-WIDE/NON-OPERABLE UNIT SPECIFIC PROJECTED FUTURE COSTS	$ 3,000,000	
TOTAL PROJECTED FUTURE COSTS	$ 8,386,000	

---

[1] As a result of a recent review, this component of the $16,801,295 referred to in the demand letter has been increased by 37,800.

[2] As a result of a recent review, this component of the $16,801,295 referred to in the demand letter has been increased by $404,260. This increase is due to the addition of certain Department of Justice costs and a re-calculation of EPA's indirect costs.

[3] EPA has already received $1,237,072 in area-wide/non-operable unit specific past costs pursuant to the Burbank Operable Unit Site Consent Decree. This amount represents 50% of the area-wide/non-operable unit specific costs through December 31, 1989.

[4] See footnotes 1 and 2 above regarding the difference between this total and the amount referred to in the demand letter.

[5] The NHOU Site treatment facility began full-time operation in December 1989. According to the NHOU Site Record of Decision, the interim remedy is to be operated for 15 years. Since the annual average operation and maintenance (O&M) costs for 1990 and 1991 was $322,000, and assuming that the remaining 13 years of O&M costs will be similar, future O&M costs are projected to be at least $4,186,000.

[6] EPA will continue to fund, through its cooperative agreement with the State Water Resources Control Board, the Regional Water Quality Control Board's source identification program. This program is expected to continue for at least three more years and costs relating to the NHOU Site are estimated at $400,000 a year, for a total of $1,200,000.

[7] This amount is an estimate of the costs to run EPA's monitoring well sampling program over the next two years.

3200 San Fernando Road, Los Angeles, California 90065

CALMAT CO. FACSIMILE

Fax No.: 213/258-1583

TO: Barry C. Vaughan, Esq.

COMPANY: **FAX #:** 310/552-0805

FROM: Brian Ferris **DATE:** 7/27/93

Number of pages to follow: 1

Call Maureen A. Bayon 213/258-2777, ext. 3370, regarding problems in transmittal.

The information contained in this telecopy message is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this message in error, please immediately notify us by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Barry Vallone	From Jorge León
Co.	Co. SWRCB
Dept.	Phone # (916) 657-2428
Fax # (310) 552-0805	Fax # 653-0428

DRAFT (8/11/95)

[Counsel for Cal-Mat]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Cal-Mat[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Cal-Mat Company (Sun Valley Landfill) site. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Calmat Company to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Nothing in this letter is intended to release any party from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

Post-it brand fax transmittal memo 7671 | # of pages ▸ 2

To Chuck Mitz	From Jorge Leon
Co. Waste Mgt Inc	Co. SWRCB
Dept.	Phone # 657-2428
Fax # 448-2470	Fax # 653-0424

DRAFT (8/11/95)

[Counsel for Waste Management, Inc.]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Waste Management, Inc.[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Bradley Landfill site, owned by Waste Management, Inc. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Waste Management, Inc. to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Waste Management, Inc. has filed with this Regional Board assurances of financial responsibility to initiate and complete corrective action for releases from the Bradley Landfill in the amount of $1 Million (Insurance Policy No. CPCS92-0006). In addition, Waste Management, Inc. has an additional insurance

policy from National Guaranty Insurance Company in the amount of $11,782,547 for closure and post closure funding. Nothing in this letter is intended to release Waste Management, Inc. from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15, Article 6, involving these funds.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

GIBBS, GIDEN, LOCHER & ACRET
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FACSIMILE COVER SHEET

OUR FILE NO. 1359.002

DATE: August 18, 1995
TIME COMPLETED:
TO: Lynn Walker
c/o Randy Morrison
COMPANY: CROSBY, HEAFEY, ROACH & MAY
FAX NO: (510) 273-8832
PAGES (incl. cover sheet): 3
FROM: Barry C. Vaughan

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To Chuck Litz	From George Lem
Co. Waste Mgt Co.	Co. SWRCB
Dept	Phone # 657-2428
Fax # 448-2470	Fax # 653 0428

DRAFT (8/11/95)

[Counsel for Waste Management, Inc.]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Waste Management, Inc.[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Bradley Landfill site, owned by Waste Management, Inc. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Waste Management, Inc. to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Waste Management, Inc. has filed with this Regional Board assurances of financial responsibility to initiate and complete corrective action for releases from the Bradley Landfill in the amount of $1 Million (Insurance Policy No. CPCS92-0006). In addition, Waste Management, Inc. has an additional insurance

policy from National Guaranty Insurance Company in the amount of $11,782,547 for closure and post closure funding. Nothing in this letter is intended to release Waste Management, Inc. from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15, Article 6, involving these funds.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

WMX TECHNOLOGIES, INC.
GOVERNMENT AFFAIRS -- WEST
915 L Street, Suite 1430
Sacramento, California 95814

Tel: (916) 448-4675
Fax: (916) 448-2470

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Office Number: 310/552-3400

MESSAGE: RE: Draft letter

SENT BY: Chuck White

Number of Pages: 3 INCLUDING THIS COVER SHEET

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If there are any questions regarding this transmission, or if all pages were not received, please contact Rachel (916/448-4675).

DATE 8/14/95

TIME PM

DANIEL E. LUNGREN
Attorney General

State of California
DEPARTMENT OF JUSTICE

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July 21, 1995

Barry Vaughan, Esq.
Gibbs, Giden, Locher & Acret
2029 Century Park East, Suite 3400
Los Angeles, CA 90067-3020

RE: North Hollywood Operable Unit
Draft Regional Board Letter

Dear Barry:

In accordance with our telephone conversation, I am enclosing a copy of the draft letter which I had submitted to Jorge Leon at the Regional Water Quality Control Board.

It is my understanding that you are acting as the temporary coordinator among the PRP group and will be distributing the draft to the other PRPs as well.

I hope that this draft will be useful in your further discussions with the Regional Board.

Sincerely,

DONALD E. LUNGREN
Attorney General

Ann Rushton

ANN RUSHTON
Deputy Attorney General

cc: Jorge Leon, Esq.
Marie Rongone, Esq.
David Glazer, Esq.

DRAFT

[Counsel for Settling Defendants]

Re: North Hollywood Operable Unit

Dear Counsel,

This letter is provided to you as counsel for your respective clients, [list clients and sites]. These parties have been identified as potentially responsible parties for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin.

It is our understanding that your clients are entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Counsel for DTSC has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern as presented to us by counsel for DTSC, we have reviewed the our files on the North Hollywood Operable Unit. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board will not require your clients to undertake the construction or operation of individual groundwater treatment facilities at their respective sites in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Nothing in this letter is intended to release any party from its responsibilities as set forth under any existing order of the Regional Water Quality Control Board.

Sincerely,

FAX TRANSMISSION COVER SHEET

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TO:

NAME: Barry Vaughan, Esq. (310) 552-0805

AGENCY/COMPANY: cc. Jorge Leon (8) 453-0428

FAX NO.: Marie Rongone (415) 744-1041

PHONE NO.: David Geyer (415) 744-6476

FROM:

NAME: ANN RUSHTON, Deputy Attorney General, Environmental Law Section

STATE OF CALIFORNIA
DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL
300 South Spring Street, Suite 500N
Los Angeles, California 90013

PHONE NO.: (213) 897-2608 CALNET: (8) 647-2608

FAX NO.: (213) 897-2802 (or if busy, (213) 897-2804)

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From TOM MINTZ
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(Attorneys for Plaintiffs continued on next page)

IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	CIVIL NO. 93-6490-MRP(Tx) PARTIAL CONSENT DECREE
STATE OF CALIFORNIA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	CIVIL NO. 93-6570-MRP(Tx) PARTIAL CONSENT DECREE

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Attorneys for Plaintiff, State of California

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I. BACKGROUND

A. COMPLAINTS. On October 26, 1993, the United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), and, on October 29, 1993, the State of California ("State"), on behalf of the State Department of Toxic Substances Control (formerly, the Toxic Substances Control Program of the State Department of Health Services), filed complaints in this matter pursuant to Sections 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") as amended, 42 U.S.C. §§ 9607 and 9613. Both the United States and the State ("Plaintiffs") filed, concurrently with this Consent Decree, amended complaints, which add additional defendants to the original complaints. In the amended complaints, the Plaintiffs seek recovery of response costs incurred by the Plaintiffs in connection with actions taken pursuant to CERCLA in response to releases and threatened releases of hazardous substances from the Defendants' facilities in the San Fernando Valley Groundwater Basin ("Basin") and at the North Hollywood Operable Unit Site ("NHOU Site") within the Basin. The Plaintiffs also seek a declaration of the Defendants' liability for future response costs to be incurred by the Plaintiffs.

B. SITE DESCRIPTION.

1. Basin. The San Fernando Valley Superfund Sites ("SFV Sites") are located in the eastern half of the Basin, between the San Gabriel and the Santa Monica Mountains, in Los Angeles County, California. EPA has divided the SFV Sites in two different ways. For the purpose of placing the SFV Sites on the

National Priorities List ("NPL"), EPA divided the SFV Sites into the following four areas based on the location of drinking water well fields that were known to be contaminated by volatile organic compounds ("VOCs") in 1984: Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). Once more was known about the extent of groundwater contamination and for the purpose of accelerating the investigation and cleanup of the SFV Sites, EPA divided the SFV Sites into the following five Operable Units ("OUs"): North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock.

2. NHOU Site. This Consent Decree focuses on the NHOU Site, originally listed as part of the San Fernando Valley Area 1/North Hollywood Area NPL site. The NHOU Site is comprised of the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates.

C. NATURE OF SITE CONTAMINATION. Tests conducted in the early 1980s to determine the presence of certain industrial chemicals in the State's drinking water revealed extensive VOC contamination in the Basin's groundwater. The primary contaminants of concern were and are the solvents trichloroethene ("TCE") and tetrachloroethene ("PCE"), widely used in a variety of industries including metal plating, machinery degreasing, and dry cleaning. By August 1985, groundwater from 27 of the 35 production wells in the North Hollywood Well Field alone exceeded

the Federal Maximum Contaminant Level ("MCL") for TCE. MCLs are drinking water standards established under the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. § 300f et seq. Other VOC contaminants in the Basin have also been detected above their MCLs. As a result of this groundwater contamination, many production wells have been taken out of service, despite that approximately 800,000 people depend on the Basin's groundwater to supply their domestic water needs. According to recent estimates, the plume of TCE contamination above the MCL in the Basin's groundwater extends over an area eleven miles long and as great as three miles wide. Concentrations as high as 340,000 parts per billion of TCE (68,000 times the MCL of 5 parts per billion for TCE) have been detected in the Basin's groundwater.

D. NPL LISTING. In June 1986, EPA placed the SFV Sites, which include the NHOU Site, on the NPL (see 51 Federal Register 21054). The NPL is promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and is a list of the most seriously contaminated hazardous substances sites in the country (see 40 C.F.R. Part 300, Appendix B). As stated in Section I.B.1 above, the SFV Sites listed on the NPL are Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). The original boundaries of the SFV Sites were based on the location of the drinking water well fields that where known to be contaminated by VOCs in 1984. Groundwater data collected since 1984 show that VOC groundwater contamination extends beyond the original boundaries drawn at the time the SFV Sites were placed on the NPL.

///

E. OU DESIGNATION. In 1985, EPA determined that the most effective way of dealing with the spreading groundwater contamination in the Basin was to divide the SFV Sites into OUs. Each OU represents a discrete, interim remedial action that will inhibit the migration of contamination in the groundwater prior to the completion of a Basin-wide Remedial Investigation ("RI") and Feasibility Study ("FS") and selection of any Basin-wide remedial actions. As stated in Section I.B.1 above, EPA has identified the following five OUs: North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock. EPA has issued Record of Decision ("ROD") documents selecting interim remedial actions for four of these OUs: NHOU Site (1987), Burbank OU (1989), and Glendale North and South OUs (1993).

F. NHOU SITE FS AND ROD. In November 1986, pursuant to a cooperative agreement with EPA, the Los Angeles Department of Water and Power ("LADWP") completed an OU FS for the NHOU Site. After providing an opportunity for the public to comment on the completed OU FS, in September 1987, EPA issued a ROD for the NHOU Site. The interim remedial action selected in the 1987 NHOU ROD is fifteen years of groundwater extraction and treatment.

G. NHOU SITE INTERIM REMEDIAL ACTION. In 1989, pursuant to another cooperative agreement with EPA, LADWP constructed the NHOU Site groundwater extraction and treatment facilities. These facilities pump out contaminated groundwater, remove the contaminants from the groundwater, and convey the treated groundwater to LADWP's pump station for distribution to the public. Consistent with Section 104(c)(3) of CERCLA, 42 U.S.C. § 9604(c)(3), EPA paid for ninety percent and the State paid for

ten percent of the construction costs of the extraction and treatment facilities; and EPA is paying for ninety percent and the State is responsible for paying ten percent of the operating costs of the NHOU Site interim remedial action. Pursuant to its cooperative agreement with EPA, LADWP will continue to operate and maintain the NHOU Site interim remedial action.

H. BASIN-WIDE GROUNDWATER AND SOIL CLEANUP ACTIVITIES. Remediation of groundwater in the Basin is a collaborative undertaking of EPA, the State, LADWP, and the California Regional Water Quality Control Board, Los Angeles Region ("RWQCB"). In December 1992, pursuant to another cooperative agreement with EPA, LADWP completed the Phase 1 Basin-wide groundwater RI. EPA is currently preparing a Basin-wide groundwater FS. In addition to groundwater investigation and remediation activities, EPA, in conjunction with the State and RWQCB, has conducted and continues to conduct soil investigations at individual facilities throughout the Basin to uncover potential sources of groundwater contamination. In September 1989, EPA entered into a cooperative agreement with RWQCB to provide funds to augment the State's program to investigate sources of groundwater contamination in the Basin.

I. PLAINTIFFS' ALLEGATION OF DEFENDANTS' LIABILITY. The Plaintiffs allege that: (i) the past, present, or potential migrations of "hazardous substances," as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), from the Defendants' "facilities," as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), constitute actual or threatened "releases," as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22); (ii) the

Defendants are persons subject to liability under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a); (iii) the releases or threatened releases of hazardous substances from the Defendants' facilities have caused the Plaintiffs to incur and to continue to incur "response" costs, within the meaning of Section 101(25) of CERCLA, 42 U.S.C. § 9601(25); and (iv) the actions taken by the Plaintiffs in response to releases or threatened releases of hazardous substances from the Defendants' facilities were not inconsistent with the National Contingency Plan.

J. SETTLING DEFENDANTS' DENIAL OF LIABILITY. The Defendants that have entered into this Consent Decree ("Settling Defendants") do not admit any liability to the Plaintiffs arising out of the transactions or occurrences alleged in the amended complaints or as set forth above.

K. PURPOSE.

1. Pursuant to a cooperative agreement with EPA, LADWP will implement the NHOU interim remedial action selected in the 1987 NHOU ROD. The purpose of this Consent Decree is to provide for the Settling Defendants' payment of a specified amount of the cost of the NHOU interim remedial action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to their facilities located at the NHOU Site.

2. The parties to this Consent Decree ("Parties") recognize that the Settling Defendants' payment represents only a part of the total cost of the NHOU interim remedial action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to the facilities located at the NHOU Site.

3. The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and implementation of this Consent Decree will expedite the cleanup of the NHOU Site and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the parties to this Consent Decree, it is ORDERED, ADJUDGED, AND DECREED:

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Consent Decree that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in any appendices attached hereto and incorporated hereunder, the following definitions shall apply:

A. "Basin-wide past response costs" shall mean all past costs that the Plaintiffs have incurred for Basin-wide/non-operable unit specific investigations allocable to facilities located at the NHOU Site only, prior to and including April 30, 1992.

B. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

C. "Certification of Completion" shall mean EPA's certification pursuant to Section 122(f)(3) of CERCLA, 42 U.S.C. § 9622(f)(3), that all remedial actions have been completed that

relate to the NHOU Site in accordance with the requirements of the National Contingency Plan and any applicable Record of Decision.

D. "Consent Decree" shall mean this Decree and any attached appendices. In the event of conflict between this Decree and any appendix, this Decree shall control.

E. "Day" shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal Holiday, the period shall run until the close of business of the next working day.

F. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

G. "Interest," in accordance with Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507. In calculating interest, Plaintiffs may compound on a daily, monthly, or annual basis.

H. "North Hollywood Operable Unit" or "NHOU Site" shall mean the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates.

I. "Parties" shall mean the United States, the State of California, and the Settling Defendants.

///

J. "Plaintiffs" shall mean the United States and the State of California.

K. "Settling Defendants" shall mean CalMat Company; Fleetwood Machine Products, Inc.; Hawker Pacific, Inc.; Lockheed Air Terminal, Inc.; Lockheed Corporation; Pacific Steel Treating Company, Inc.; Pick-Your-Parts Auto Wrecking; Waste Management Disposal Services of California, Inc.; Joseph W. Basinger; Niels Bruun-Andersen, in his capacity as Trustee of the Erik and Else Bruun-Andersen Trust; William L. Cooke and Jerry Conrow, in their capacity as Trustees of the Amended Cooke Family Trust; and Gordon N. Wagner and Peggy M. Wagner, in their capacity as Trustees of the Wagner Living Trust.

L. "State" shall mean the State of California.

M. "United States" shall mean the United States of America.

N. "1987 NHOU ROD" shall mean the EPA Record of Decision relating to the North Hollywood Operable Unit of the San Fernando Valley Area 1/North Hollywood Area National Priorities List site that was signed in September 1987, by the EPA Region IX Deputy Regional Administrator, acting for the Regional Administrator, and all attachments thereto.

O. "1987 NHOU ROD response costs" shall mean all past and future costs that the United States has incurred or will incur for implementation of the remedy selected in the 1987 NHOU ROD; and all costs that the State has incurred for implementation of the remedy selected in the 1987 NHOU ROD, prior to and including the date that this Consent Decree is lodged with the Court.

///

Not future for State

III. JURISDICTION

This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Settling Defendants. Solely for the purposes of this Consent Decree and the underlying amended complaints, the Settling Defendants waive all objections and defenses that they may have to jurisdiction of this Court or to venue in this District and shall not challenge the entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

IV. PARTIES BOUND

This Consent Decree is binding upon the Plaintiffs, and upon the Settling Defendants and their heirs, successors, and assigns. Any change in ownership or corporate or other legal status, including but not limited to any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of the Settling Defendants under this Consent Decree. Each Settling Defendant agrees to provide its successors and assigns written notice of this Consent Decree and to provide to the Plaintiffs, in accordance with Section XI of this Consent Decree, notice of any change in corporate or legal status or transfer or assignment of a "substantial portion" of its assets. ?

V. REIMBURSEMENT OF RESPONSE COSTS

A. PAYMENT OF RESPONSE COSTS. Within thirty (30) days of entry of this Consent Decree, the Settling Defendants shall pay to the United States $6,500,000 and pay to the State $[redacted] for 1987 NHOU ROD response costs and Basin-wide past response costs.

B. FORM OF PAYMENT. Payment to the United States shall be made by one Electronic Funds Transfer ("EFT") to the U.S. Department of Justice lockbox, referencing CERCLA Site/Spill identifier Nos. N1 and 59, and the U.S.A.O. No. [redacted]. Payment shall be made in accordance with instructions provided by Plaintiff United States to the Settling Defendants upon execution of the Consent Decree. Any EFT received at the Department of Justice lockbox bank after 11:00 A.M. Eastern Time will be credited on the next business day. At the time of payment, Settling Defendants shall simultaneously send written notice of payment and a copy of any transmittal documentation to the United States and EPA as specified in Section XI. Payment to the State shall be made in the form of a certified check or cashier's check made payable to "Cashier, Department of Toxic Substances Control," and shall be forwarded to:

Department of Toxic Substances Control
State of California
Accounting Office
400 P Street, 4th Floor
Sacramento, California 95814

The Settling Defendants shall send a transmittal letter with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site and the civil action number 93-6570-MRP(Tx). The Settling Defendants shall also send copies of the check and transmittal letter to the State as specified in Section XI.

C. FAILURE TO MAKE TIMELY PAYMENTS

1. Interest on Late Payments. In the event that any payments required under Section V are not made when due, interest on the unpaid amount shall begin to accrue thirty (30) days after the effective date of this Consent Decree, at the rate specified

in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), through the date of payment.

2. Stipulated Penalties. If any amounts due to the Plaintiffs under this Consent Decree are not paid by the required date, the Settling Defendants shall pay as a stipulated penalty, in addition to the interest required by Section V.C.1 above, $5,000 per day that such payment is late. Stipulated penalties are due and payable within thirty (30) days of the Settling Defendants' receipt from either Plaintiff of a demand for payment of the penalties. All payments of stipulated penalties to the United States shall be made in the form of a certified check or cashier's check made payable to "EPA Hazardous Substance Superfund," and shall be forwarded to:

U.S. Environmental Protection Agency, Region IX
Superfund Accounting
P.O. Box 360863M
Pittsburgh, Pennsylvania 15251
Attention: Collection Officer for Superfund

The Settling Defendants shall send a transmittal letter with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site and the civil action number 93-649[illegible]-MRP(TX), and shall also state that the funds are to be applied to site spill identifier numbers N1 and 59. The Settling Defendants shall also send copies of the check and transmittal letter to the United States as specified in Section XI. All payments of stipulated penalties to the State shall be made in the form and manner specified in Section V.B above. Penalties shall accrue as provided above regardless of whether Plaintiffs have notified the Settling Defendants of the violation or made a demand for payment, but need only be paid upon demand.

D. COLLECTION ACTIONS. If either Plaintiff must bring an action to collect any payment required by this Consent Decree, the Settling Defendants shall reimburse the Plaintiff bringing the action for all costs of such action, including but not limited to costs of attorney time.

E. RELATION TO OTHER REMEDIES. Payments made under Section V shall be in addition to any other remedies or sanctions available to the Plaintiffs by virtue of the Settling Defendants' failure to make timely payments required by this Consent Decree.

F. JOINT AND SEVERAL LIABILITY. The obligations of the Settling Defendants to pay amounts owed the Plaintiffs under this Consent Decree are joint and several. In the event of the failure of any one or more Settling Defendants to make the payments required under this Consent Decree, the remaining Settling Defendants shall be responsible for such payments.

VI. COVENANTS NOT TO SUE AND RESERVATIONS OF RIGHTS

A. PLAINTIFFS' COVENANT NOT TO SUE. In consideration of the payments that will be made by the Settling Defendants under the terms of the Consent Decree, and except as specifically provided in Sections VI.B, VI.C, VI.E, and VI.F, the Plaintiffs covenant not to sue or to take administrative action against the Settling Defendants pursuant to Sections 106 and 107(a) of CERCLA with regard to all 1987 NHOU ROD response costs and all Basin-wide past response costs. The covenant not to sue shall take effect upon the receipt by the Plaintiffs of the payments required by Section V. The covenant not to sue is conditioned upon the complete and satisfactory performance by the Settling Defendants of their obligations under this Consent Decree. The

covenant not to sue extends only to the Settling Defendants and does not extend to any other person.

B. PLAINTIFFS' PRE-CERTIFICATION RESERVATIONS.

Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse Plaintiffs for additional costs of response if, prior to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or
2. information, previously unknown to the Plaintiffs, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicates that any remedial action taken at the NHOU Site is not protective of human health or the environment.

C. PLAINTIFFS' POST-CERTIFICATION RESERVATIONS.

Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse the Plaintiffs for additional costs of response if, subsequent to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or

2. information, previously unknown to the Plaintiffs, is received, in whole or in part,

and these previously unknown conditions or this information together with other relevant information indicate that any remedial action taken at the NHOU Site is not protective of human health or the environment.

D. INFORMATION AND CONDITIONS KNOWN TO THE PLAINTIFFS. For purposes of Section VI.B, the information and the conditions known to the Plaintiffs shall include only that information and those conditions set forth in the 1987 NHOU ROD and the administrative record supporting the 1987 NHOU ROD. For purposes of Section VI.C, the information and the conditions known to the Plaintiffs shall include only that information and those conditions set forth in (i) any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision relating to the NHOU Site; (ii) the administrative record supporting any future Record(s) of Decision relating to the NHOU Site; and (iii) the record for the NHOU Site maintained by EPA following issuance of any Record of Decision but prior to issuance of the Certification of Completion.

E. PLAINTIFFS' GENERAL RESERVATION OF RIGHTS. The covenant not to sue set forth above does not pertain to any matters other than those expressly specified in Section VI.A. The Plaintiffs reserve, and this Consent Decree is without prejudice to, all rights against the Settling Defendants with respect to all other matters, including, but not limited to, the

following:

1. claims based on a failure by the Settling Defendants to meet a requirement of this Consent Decree;
2. liability arising from the past, present, or future disposal, release, or threat of release of hazardous substances outside of the NHOU Site;
3. liability for damages for injury to, destruction of, or loss of natural resources;
4. liability for response costs that have been or may be incurred by any federal agencies other than EPA or the Department of Justice on behalf of EPA;
5. criminal liability; and
6. liability, if any, for violations of federal or state law which occur during or after implementation of the interim remedial action selected in the 1987 NHOU ROD.

F. PLAINTIFFS' NHOU SITE-SPECIFIC RESERVATION OF RIGHTS. The covenant not to sue set forth above specifically does not pertain to the performance of any Remedial Investigation/ Feasibility Study ("RI/FS") other than the 1986 Operable Unit Feasibility Study that formed the basis for the 1987 NHOU ROD; additional response actions that may be implemented pursuant to any final remedy or pursuant to any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision; costs or activities related to any operable unit other than the NHOU Site, including any future operable unit(s); or any environmental condition of which either the United States or the State is unaware at the time that this

Consent Decree is lodged, including, but not limited to, any new environmental condition identified in any Basin-wide RI/FS.

G. SETTLING DEFENDANTS' COVENANT. The Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against either Plaintiff with respect to the NHOU Site or this Consent Decree, including, but not limited to, (i) any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507), under CERCLA §§106(b)(2), 107, 111, 112, or 113, or any other provision of law; (ii) any claim against the United States or the State, including any department, agency, or instrumentality of the United States or State pursuant to Sections 107 and 113 of CERCLA related to the 1987 NHOU ROD response costs or the Basin-wide past response costs; or (iii) any claims arising out of response activities at the NHOU Site. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

VII. CONTRIBUTION PROTECTION

A. Nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Consent Decree. Each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each party may have with respect to any matter, transaction, or occurrence relating in any way to the NHOU Site against any person not a party hereto.

B. With regard to claims for contribution against the Settling Defendants for matters addressed in this Consent Decree, the Parties hereto agree that the Settling Defendants are entitled to such protection from contribution actions or claims as is provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

C. The Settling Defendants agree that with respect to any suit or claim for contribution brought by them for matters related to this Consent Decree they will notify the Plaintiffs in writing no later than sixty (60) days prior to the initiation of such suit or claim. The Settling Defendants also agree that with respect to any suit or claim for contribution brought against them for matters related to this Consent Decree they will notify in writing the Plaintiffs within ten (10) days of service of the complaint on them. In addition, the Settling Defendants shall notify the Plaintiffs within ten (10) days of service or receipt of any Motion for Summary Judgment and within ten (10) days of receipt of any order from a court setting a case for trial for matters related to this Consent Decree.

D. The Settling Parties recognize and acknowledge that the settlement embodied in this Consent Decree relates only to the interim remedial action selected in the 1987 NHOU ROD, as well as Basin-wide past response costs, and that additional remedial actions may be necessary to address the contamination at the NHOU Site. In any subsequent administrative or judicial proceeding initiated by the United States or the State for injunctive relief, recovery of response costs, or other appropriate relief relating to the NHOU Site, the Settling Defendants shall not

assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Section VII.D affects the enforceability of the covenants not to sue set forth in Section VI.

VIII. NHOU SITE ACCESS

A. Commencing upon the date of lodging of this Consent Decree, the Settling Defendants who own property at the NHOU Site agree to provide the Plaintiffs and their representatives access at all reasonable times to their facilities located at the NHOU Site and any other property owned or controlled by the Settling Defendants to which access is required for the implementation of response actions for the NHOU Site, including, but not limited to, the following actions:

1. monitoring, investigation, remedial, or other activities at the NHOU Site;
2. verifying any data or information submitted to either Plaintiff;
3. conducting investigations relating to contamination at or near the NHOU Site;
4. obtaining samples; and
5. assessing the need for, planning, or implementing response actions at or near the NHOU Site.

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B. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective access authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statute or regulation.

IX. ACCESS TO INFORMATION

A. The Settling Defendants shall provide to the Plaintiffs, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the NHOU Site, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the NHOU Site.

B. The Settling Defendants may assert business confidentiality claims covering part or all of the documents or information submitted to the Plaintiffs under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to either Plaintiff, or if EPA has notified the Settling Defendants that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to the Settling Defendants.

///

C. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege in lieu of providing documents, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

D. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data; or any other documents or information evidencing conditions at or around the NHOU Site; or any document that falls within Section 104(e)(7)(F) of CERCLA, 42 U.S.C. § 9604(e)(7)(F).

E. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective information gathering authorities and rights, including enforcement

authorities related thereto, under CERCLA and any other applicable statute or regulation.

X. RETENTION OF RECORDS

A. Until ten (10) years after the entry of this Consent Decree, each Settling Defendant shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to response actions taken at the NHOU Site or the liability of any person for response actions conducted and to be conducted at the NHOU Site, regardless of any corporate retention policy to the contrary.

B. At the conclusion of this document retention period, the Settling Defendants shall notify the Plaintiffs at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by either Plaintiff, the Settling Defendants shall deliver any such records or documents to the Plaintiff who made the request. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information

created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

C. Each Settling Defendant hereby certifies, individually, that it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to its potential liability regarding the NHOU Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the NHOU Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6927.

XI. NOTICES AND SUBMISSIONS

Whenever, under the terms of this Consent Decree notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, the State, and the Settling Defendants, respectively.

As to the United States:

///

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
Re: Case No. 90-11-3-1149

As to EPA:

Remedial Project Manager — North Hollywood Operable Unit
San Fernando Valley Superfund Site
Hazardous Waste Management Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105

As to the State:

Assistant Attorney General, Environment Section
California Department of Justice
300 South Spring Street, #5000
Los Angeles, California 90013

As to the State Department of Toxic Substances Control:

Chief, Site Mitigation Branch
Department of Toxic Substances Control, Region 3
1011 North Grandview Avenue
Glendale, California 91201

As to the Settling Defendants:

[Insert the name of one person who will serve as the contact for all the Settling Defendants]

XII. RETENTION OF JURISDICTION

This Court shall retain jurisdiction of this matter for the purpose of enforcing the terms of this Consent Decree.

XIII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

A. This Consent Decree shall be lodged with the Court for a period of thirty (30) days for public notice and comment. The Plaintiffs reserve the right to withdraw or withhold their consent if the comments regarding the Consent Decree disclose facts or considerations that indicate that this Consent Decree is inappropriate, improper, or inadequate. The Settling Defendants

consent to the entry of this Consent Decree without further notice.

B. If for any reason this Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

XIV. SECTION HEADINGS

The section headings set forth in this Consent Decree and its Table of Contents are included for convenience or reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Consent Decree.

XV. SIGNATORIES

Each undersigned representative of a Settling Defendant to this Consent Decree, the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice, and the Deputy Attorney General of the California Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such party to this document.

SO ORDERED THIS _____ DAY OF _____, 19__.

_____
United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR THE UNITED STATES OF AMERICA

Date: _____

LOIS J. SCHIFFER
Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

DAVID B. GLAZER
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

STEVEN A. HERMAN
Assistant Administrator for Enforcement
U.S. Environmental Protection Agency

Date: _____

FELICIA MARCUS
Regional Administrator, Region IX
U.S. Environmental Protection Agency

FOR THE STATE OF CALIFORNIA

Date: _____

DONALD A. ROBINSON
Deputy Attorney General
California Department of Justice

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR DEFENDANTS:

NIELS BRUUN-ANDERSEN

_____
NIELS BRUUN-ANDERSEN
Trustee of the Erik and Else Bruun-Andersen Trust

Date: _____

CALMAT COMPANY

_____
A. FREDERICK GERSTELL
President

Date: _____

FLEETWOOD MACHINE PRODUCTS, INC.

_____
WILLIAM COOKE
President

Date: _____

HAWKER PACIFIC, INC.

_____
DAVID LOKKEN
Executive Vice-President

Date: _____

LOCKHEED AIR TERMINAL, INC.

_____
VIGGO BUTLER
President

Date: _____

LOCKHEED CORPORATION

_____
DANIEL M. TELLEP
President

Date: _____

PACIFIC STEEL TREATING COMPANY, INC.

_____
NIELS BRUUN-ANDERSEN
President

Date: _____

PICK-YOUR-PARTS AUTO WRECKING

_____
GLENN C. MCELROY
President

Date: _____

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR DEFENDANTS:

WASTE MANAGEMENT DISPOSAL SERVICES OF CALIFORNIA, INC.

_____
GREG LOUGHNANE
President

Date: _____

JOSEPH W. BASINGER

_____
JOSEPH W. BASINGER

Date: _____

WILLIAM L. COOKE

_____
WILLIAM L. COOKE
Co-Trustee of the Amended Cooke Cooke Family Trust

Date: _____

JERRY CONROW

_____
JERRY CONROW
Co-Trustee of the Amended Cooke Family Trust

Date: _____

GORDON N. WAGNER

_____
GORDON N. WAGNER
Co-Trustee of the Wagner Living Trust

Date: _____

PEGGY M. WAGNER

_____
PEGGY M. WAGNER
Co-Trustee of the Wagner Living Trust

Date: _____

LOIS J. SCHIFFER
Acting Assistant Attorney General
Environment & Natural Resources Division
United States Department of Justice

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Environment & Natural Resources Division
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Telephone: (213) 894-0474

Attorneys for Plaintiff, United States of America
(Attorneys for Plaintiffs continued on next page)

file.

> settlement conference
all letters to repl justice
3/2/95

IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	CIVIL NO. 93-6490-MRP(Tx) PARTIAL CONSENT DECREE
STATE OF CALIFORNIA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	PARTIAL CONSENT DECREE

NANCY J. MARVEL
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I. BACKGROUND

A. COMPLAINTS. On October 26, 1993, the United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), and, on October 29, 1993, the State of California ("State"), on behalf of the State Department of Toxic Substances Control (formerly, the Toxic Substances Control Program of the State Department of Health Services), filed complaints in this matter pursuant to Sections 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C. §§ 9607 and 9613. Both the United States and the State ("Plaintiffs") filed, **prior to or** concurrently with this Consent Decree, amended complaints, which add additional defendants to the original complaints. In the amended complaints, the Plaintiffs seek recovery of response costs incurred by the Plaintiffs in connection with actions taken pursuant to CERCLA in response to releases and threatened releases of hazardous substances from the Defendants' facilities in the San Fernando Valley Groundwater Basin ("Basin") and at the North Hollywood Operable Unit Site ("NHOU Site") within the Basin. ~~The Plaintiffs also seek a declaration of the Defendants' liability for such releases and threatened releases.~~ (Plaintiffs' strikeout).

B. SITE DESCRIPTION.

1. Basin. The San Fernando Valley Superfund Sites ("SFV Sites") are located in the eastern half of the Basin, between the San Gabriel and the Santa Monica Mountains, in Los Angeles County, California. EPA has divided the SFV Sites in two

different ways. For the purpose of placing the SFV Sites on the National Priorities List ("NPL"), EPA divided the SFV Sites into the following four areas based on the location of drinking water well fields that were known to be contaminated by volatile organic compounds ("VOCs") in 1984: Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). Once more was known about the extent of groundwater contamination and for the purpose of accelerating the investigation and cleanup of the SFV Sites, EPA divided the SFV Sites into the following five Operable Units ("OUs"): North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock.

2. NHOU Site. This Consent Decree focuses on the NHOU Site, originally listed as part of the San Fernando Valley Area 1/North Hollywood Area NPL site. The NHOU Site is comprised of the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates.

C. NATURE OF SITE CONTAMINATION. Tests conducted in the early 1980s to determine the presence of certain industrial chemicals in the State's drinking water revealed extensive VOC contamination in the Basin's groundwater. The primary contaminants of concern were and are the solvents trichloroethene ("TCE") and tetrachloroethene ("PCE"), widely used in a variety of industries including metal plating, machinery degreasing, and dry cleaning. By August 1985, groundwater from 27 of the 35

production wells in the North Hollywood Well Field alone exceeded the Federal Maximum Contaminant Level ("MCL") for TCE. MCLs are drinking water standards established under the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. § 300f et seq. Other VOC contaminants in the Basin have also been detected above their MCLs. As a result of this groundwater contamination, many production wells have been taken out of service, despite the fact that the Basin's groundwater has been used to supply the domestic water needs of approximately 800,000 people. According to recent estimates, the plumes of TCE contamination above the MCL in the Basin's groundwater extend over an area eleven miles long and as great as three miles wide.

D. NPL LISTING. In June 1986, EPA placed the SFV Sites, which include the NHOU Site, on the NPL (see 51 Federal Register 21054). The NPL is promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and is a list of the most seriously contaminated hazardous substances sites in the country (see 40 C.F.R. Part 300, Appendix B). As stated in Section I.B.1 above, the SFV Sites listed on the NPL are Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). The original boundaries of the SFV Sites were based on the location of the drinking water well fields that were known to be contaminated by VOCs in 1984. Groundwater data collected since 1984 show that VOC groundwater contamination extends beyond the original boundaries drawn at the time the SFV Sites were placed on the NPL.

E. OU DESIGNATION. In 1985, EPA determined that the most effective way of dealing with the spreading groundwater

contamination in the Basin was to divide the SFV Sites into OUs. Each OU represents a discrete, interim remedial action that will inhibit the migration of contamination in the groundwater prior to the completion of a Basin-wide Remedial Investigation ("RI") and Feasibility Study ("FS") and selection of any Basin-wide remedial actions. As stated in Section I.B.1 above, EPA has identified the following five OUs: North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock. EPA has issued Record of Decision ("ROD") documents selecting interim remedial actions for four of these OUs: NHOU Site (1987), Burbank OU (1989), and Glendale North and South OUs (1993).

F. NHOU SITE FS AND ROD. In November 1986, pursuant to a cooperative agreement with EPA **and the State of California**, the Los Angeles Department of Water and Power ("LADWP") completed an OU FS for the NHOU Site. After providing an opportunity for the public to comment on the completed OU FS, in September 1987, EPA issued a ROD for the NHOU Site. The interim remedial action selected in the 1987 NHOU ROD is fifteen years of groundwater extraction and treatment.

G. NHOU SITE INTERIM REMEDIAL ACTION. In 1989, pursuant to another cooperative agreement with EPA **and the State of California,** LADWP constructed the NHOU Site groundwater extraction and treatment facilities. These facilities pump out contaminated groundwater, remove the contaminants from the groundwater, and convey the treated groundwater to LADWP's pump station for distribution to the public. Consistent with Section 104(c)(3) of CERCLA, 42 U.S.C. § 9604(c)(3), EPA paid for ninety percent and the State paid for ten percent of the construction

costs of the extraction and treatment facilities; and EPA is paying for ninety percent and the State is responsible for paying ten percent of the operating costs of the NHOU Site interim remedial action. Pursuant to its cooperative agreement with EPA and the State of California, LADWP will continue to operate and maintain the NHOU Site Interim Remedial Action.

H. BASIN-WIDE GROUNDWATER AND SOIL CLEANUP ACTIVITIES. Remediation of groundwater in the Basin is a collaborative undertaking of EPA, the State, LADWP, and the California Regional Water Quality Control Board, Los Angeles Region ("RWQCB"). In December 1992, pursuant to another cooperative agreement with EPA, LADWP completed the Phase 1 Basin-wide groundwater RI. EPA is currently preparing a Basin-wide groundwater FS. In addition to groundwater investigation and remediation activities, EPA, in conjunction with the State and RWQCB, has conducted and continues to conduct soil investigations at individual facilities throughout the Basin to uncover potential sources of groundwater contamination. In September 1989, EPA entered into a cooperative agreement with RWQCB to provide funds to augment the State's program to investigate sources of groundwater contamination in the Basin.

I. PLAINTIFFS' ALLEGATION OF DEFENDANTS' LIABILITY. The Plaintiffs allege that: (i) the past, present, or potential migrations of "hazardous substances," as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), from the Defendants' "facilities," as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), constitute actual or threatened "releases," as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22); (ii) the

Defendants are persons subject to liability under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a); (iii) the releases or threatened releases of hazardous substances from the Defendants' facilities have caused the Plaintiffs to incur and to continue to incur "response" costs, within the meaning of Section 101(25) of CERCLA, 42 U.S.C. § 9601(25); and (iv) the actions taken by the Plaintiffs in response to releases or threatened releases of hazardous substances from the Defendants' facilities were not inconsistent with the National Contingency Plan.

J. SETTLING DEFENDANTS' DENIAL OF LIABILITY. The Defendants that have entered into this Consent Decree ("Settling Defendants") do not admit and expressly deny any liability to the Plaintiffs arising out of the transactions or occurrences alleged in the amended complaints or as set forth above. The Plaintiffs and the Settling Defendants agree that neither this Consent Decree, nor the entry into settlement, nor any payments pursuant to this Consent Decree shall constitute or be construed as a finding or an admission, adjudication or acknowledgement of any fact or law, or of any liability, fault or wrongdoing, or evidence of such, or an admission of violation of any law, rule or regulation by Settling Defendants nor as an estoppel or waiver of any defenses of Settling Defendants except as provided in Section VI.G of this Consent Decree.

K. PURPOSE.

1. Pursuant to a cooperative agreement with EPA and the State of California, LADWP is implementing the NHOU Interim Remedial Action selected in the 1987 NHOU ROD. The purpose of this Consent Decree is to avoid prolonged litigation and to

provide for the Settling Defendants' payment of specified amounts of the past and future response costs for the NHOU Interim Remedial Action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to their facilities located at the NHOU Site in full and complete satisfaction of any and all claims against Settling Defendants for such costs.

2. The parties to this Consent Decree ("Parties") recognize that the Settling Defendants' payment represents only a part of the total cost of the NHOU Interim Remedial Action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to the facilities located at the NHOU Site.

3. In entering into this Consent Decree, the Plaintiffs have considered the circumstances of the releases and threatened releases of hazardous substances in the Basin, the involvement of the Settling Defendants in the ownership and/or operation of facilities located at the NHOU Site and the willingness and capacity of Settling Defendants and the other Defendants to resolve this matter.

4. The Parties agree, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and implementation of this Consent Decree will expedite the cleanup of the NHOU Site and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the parties to this Consent Decree, it is ORDERED, ADJUDGED, AND DECREED:

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Consent Decree that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in any appendices attached hereto and incorporated hereunder, the following definitions shall apply:

A. "Basin-wide response costs" shall mean all costs that ~~the Plaintiffs~~ have incurred or may incur for Basin-wide/non-operable unit specific investigations or other non-operable unit specific response actions. ~~allocable to facilities located at the NHOU Site only.~~[1]

B. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

C. "Certification of Completion" shall mean EPA's certification pursuant to Section 122(f)(3) of CERCLA, 42 U.S.C. § 9622(f)(3), that all remedial actions have been completed that relate to the NHOU Site in accordance with the requirements of the National Contingency Plan and any applicable Record of Decision.

D. "Consent Decree" shall mean this Decree and any attached appendices. In the event of conflict between this Decree and any appendix, this Decree shall control.

E. "Day" shall mean a calendar day. In computing any

[1] Plaintiffs believe this phrase is inaccurate.

period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal Holiday, the period shall run until the close of business of the next working day.

F. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

G. "Future Basin-wide Response Costs" shall mean all Basin-wide response costs that EPA has incurred or will incur after April 30, 1992 and that the State has incurred or will incur after December 31, 1993.

H. "Interest," in accordance with Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507. In calculating interest, Plaintiffs may compound on a monthly or annual basis.

I. "Interim Remedial Action" shall mean the interim remedial action selected in the 1987 NHOU ROD.

J. "North Hollywood Operable Unit" or "NHOU Site" shall mean the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates. EPA has determined that each of the Settling Defendants has owned and/or operated and/or currently owns and/or operates facilities that are located at the NHOU Site and/or has arranged for the disposal of hazardous substances at a facility located at the NHOU Site.

K. "Parties" shall mean the United States, the State of California, and the Settling Defendants.

L. "Past Basin-wide response costs" shall mean Basin-wide Response Costs incurred by EPA prior to and including April 30, 1992 and Basin-wide Response Costs incurred by the State prior to and including December 31, 1993.

M. "Plaintiffs" shall mean the United States and the State of California.

N. "Releasees" shall mean Settling Defendants and their officers, directors, employees and agents, and where the Settling Defendant is a trustee, its successor trustees appointed to carry out the purposes of said trust; and where the Settling Defendant is a corporate entity, its corporate successors to potential liability for the NHOU Site. "Releasees" shall also mean the following named entities **associated with one or more of the Settling Defendants**:

Affiliates of Waste Management Disposal Services of California: Waste Management Disposal Services of California, Inc. f/k/a Valley Reclamation Co. ("WMDSC"), Bradley Landfill and Recycling Center, a division of WMDSC, Waste Management of California, Inc., Waste Management of Los Angeles-North, f/k/a Waste Management of San Fernando Valley; Waste Management of Los Angeles - South, f/k/a Waste Management of Gardena; Universal Refuse Removal of El Cajon, f/k/a Universal Refuse Removal, Inc., Waste Management Collection and Recycling, Inc., f/k/a Inland Disposal, Inc., American Waste Systems, f/k/a American Waste Systems, Inc. and Waste Transfer and Recycling f/k/a Waste Transfer and Recycling, Inc., Waste Management, Inc., WMX

Technologies, Inc.

Affiliates of Lockheed Corporation and/or Lockheed Air Terminal, Inc.:

Lockheed Corporation, including but not limited to its divisions, Lockheed Aeronautical Systems Company and Lockheed Advanced Development Company; LAT Holdings, L.L.C., an affiliate of Lockheed Corporation (previously known as Lockheed Air Terminal, Inc., a wholly-owned subsidiary of Lockheed Corporation), Lockheed Missiles and Space Company, Inc., a wholly-owned subsidiary of Lockheed Corporation.

(Agency will change)

However, Releasees shall not include any person or entity with liability for the NHOU Site independent of that person's or entity's association with a Settling Defendant.

M. "Settling Defendants" shall mean CalMat Co.; Fleetwood Machine Products, Inc.; Lockheed Air Terminal, Inc.; Lockheed Corporation; Pacific Steel Treating Company, Inc.; Pick-Your-Part Auto Wrecking; Waste Management Disposal Services of California, Inc.; Niels Bruun-Andersen, in his capacity as Trustee of the Erik and Else Bruun-Andersen Trust; and William L. Cooke and Jerry Conrow, in their capacity as Trustees of the Amended Cooke Family Trust.

N. "State" shall mean the State of California.

O. "United States" shall mean the United States of America.

P. "1987 NHOU ROD" shall mean the EPA Record of Decision relating to the North Hollywood Operable Unit of the San Fernando Valley Area 1/North Hollywood Area National Priorities List site that was signed in September 1987 by the EPA Region IX Deputy

Regional Administrator, acting for the Regional Administrator, and all attachments thereto.

Q. "1987 NHOU ROD response costs" shall mean all past and future costs that ~~the Plaintiffs~~ have incurred or will incur for implementation of the remedy selected in the 1987 NHOU ROD; ~~and all costs sought in this action before the Court.~~ (Plaintiffs' Strikeout)[2]

III. JURISDICTION

This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Settling Defendants. Solely for the purposes of this Consent Decree, the Settling Defendants waive all objections and defenses that they may have to jurisdiction of this Court or to venue in this District and shall not challenge the entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

IV. PARTIES BOUND

This Consent Decree is binding upon the Plaintiffs, and upon the Settling Defendants and their heirs, successors, and assigns. Any change in ownership or corporate or other legal status, including but not limited to any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of the Settling Defendants under this Consent Decree.

[2] **Plaintiffs believe that this phrase is unnecessary.**

V. REIMBURSEMENT OF RESPONSE COSTS

A. PAYMENT OF RESPONSE COSTS. Except as otherwise provided in Paragraph V.F, within thirty (30) days of entry of this Consent Decree, each Settling Defendant shall pay the settlement amount it is obligated to pay pursuant to Paragraph V.F below to the United States and to the State for 1987 NHOU ROD response costs and Past Basin-wide response costs.

B. FORM OF PAYMENT. Payment to the United States by each Settling Defendant shall be made by Electronic Funds Transfer ("EFT") to the U.S. Department of Justice lockbox, referencing CERCLA Site/Spill identifier Nos. N1 and 59, and the U.S.A.O. No. [redacted]. Payment shall be made in accordance with instructions provided by Plaintiff United States to the Settling Defendants upon execution of the Consent Decree. Any EFT received at the Department of Justice lockbox bank after 2:00 P.M. Eastern Time will be credited on the next business day. At the time of payment, each Settling Defendant shall simultaneously send written notice of payment and a copy of any transmittal documentation to the United States and EPA as specified in Section XI. The notice shall reference the North Hollywood Operable Unit/San Fernando Valley Area I Site and the civil action number 93-6490-MRP(Tx.). Payment to the State shall be made in the form of a certified check or cashier's check made payable to "Cashier, Department of Toxic Substances Control," and shall be forwarded to:

Department of Toxic Substances Control
State of California
Accounting Office
400 P Street, 4th Floor
Sacramento, California 95814

Each Settling Defendant shall send a transmittal letter with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site, Project Nos. 300126 and 300287. Each Settling Defendant shall also send a copy of its check and transmittal letter to the State as specified in Section XI.

C. FAILURE TO MAKE TIMELY PAYMENTS

1. Interest on Late Payments. In the event that any payments required under Section V are not made when due, interest on the unpaid amount shall begin to accrue thirty (30) days after the effective date of this Consent Decree, at the rate specified in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), through the date of payment.

2. Stipulated Penalties. If any amounts due to the Plaintiffs under this Consent Decree are not paid by the required date, the delinquent Settling Defendant shall pay as a stipulated penalty, in addition to the interest required by Section V.C.1 above, $1000 for the first 30 days and $5,000 thereafter per day that such payment is late. Stipulated penalties are due and payable within thirty (30) days of the delinquent Settling Defendant's receipt from either Plaintiff of a demand for payment of the penalties. All payments of stipulated penalties to the United States shall be made in the form of a certified check or cashier's check made payable to "EPA Hazardous Substance Superfund," and shall be forwarded to:

U.S. Environmental Protection Agency, Region IX
Superfund Accounting
P.O. Box 360863M
Pittsburgh, Pennsylvania 15251
Attention: Collection Officer for Superfund

The delinquent Settling Defendant shall send a transmittal letter

with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site and the civil action number 93-6490-MRP(Tx), and shall also state that the funds are to be applied to site spill identifier numbers N1 and 59. The delinquent Settling Defendant shall also send copies of the check and transmittal letter to the United States as specified in Section XI. All payments of stipulated penalties to the State shall be made in the form and manner specified in Section V.B above. Penalties shall accrue as provided above regardless of whether Plaintiffs have notified the delinquent Settling Defendant of the violation or made a demand for payment, but need only be paid upon demand. However, payment shall be considered timely with respect to each Settling Defendant so long as the Settling Defendant has given timely instructions to a competent financial institution for the subject Electronic Funds Transfer to be made in a timely manner, and has promptly upon the transfer obtained a written verification from the financial institution that the Electronic Funds Transfer was made in accordance with the Settling Defendant's instructions.

D. COLLECTION ACTIONS. If either Plaintiff must bring an action to collect any payment required by this Consent Decree, the delinquent Settling Defendant shall reimburse the Plaintiff bringing the action for all costs of such action, including but not limited to costs of attorney time.

E. RELATION TO OTHER REMEDIES. Payments made under Section V shall be in addition to any other remedies or sanctions available to the Plaintiffs by virtue of a delinquent Settling Defendant's failure to make timely payments required by this

Consent Decree.

F. PAYMENT SCHEDULE. The Settling Defendants shall pay the United States and the State the following sums, when and in the manner **described in paragraphs V.A and B, above.**

	United States	State of California
Lockheed Air Terminal, Inc./ Lockheed Corporation	$ 2,600,000	$ 133,572
Calmat Co./Pick Your Part Auto Wrecking/Waste Management Disposal Services of California, Inc.	$ 1,300,000	$ 67,786
Pacific Steel Treating Company/ Inc./Niels Bruun-Anderson, as Trustee of Erik and Else Bruun-Anderson Trust	$ 325,000	$ 16,947
Fleetwood Machine Products, Inc./William L. Cooke and Jerry Conrow, as Trustees of the Amended Cooke Family Trust	$ 325,000	$ 16,947

In lieu of the lump sum settlement payment specified in Paragraph **F** above, the following Settling Defendants: Fleetwood Machine Products, Inc., William L. Cooke and Jerry Conrow, as Trustees of the Amended Cooke Family Trust, hereinafter "Installment Settlors," **may** make payments as follows:

Installment Settlors shall pay $ 75,000 **when and in the manner described in Paragraphs V.A. and B above** in accordance with instructions provided by Plaintiff United States to the Installment Settlors upon execution of the Consent Decree. The Installment Settlors shall pay the balance owed to Plaintiff United States within six months of execution of the Consent Decree. Interest shall accrue up to the date the balance, including any accrued interest, is paid.

It is understood between Plaintiffs and Installment Settlors that the Installment Settlors shall attempt to sell the real property known as 2902 Washington Street, Phoenix, Arizona, in satisfaction of their remaining $ 250,000 obligation to Plaintiff United States under this Consent Decree. It is understood by Plaintiff State and Installment Settlors that all sale proceeds in excess of $ 250,000 shall be immediately applied to pay some or all of the Installment Settlors' liability to Plaintiff State. In the event no real property sale proceeds are available, the Installment Settlors shall pay their liability to the State of California in accordance with instructions provided by Plaintiff State to Installment Settlors, in two equal payments, the first being due within six months of execution of this Consent Decree, and the balance owed to Plaintiff State within one year of execution of this Consent Decree.

VI. COVENANTS NOT TO SUE AND RESERVATIONS OF RIGHTS

A. PLAINTIFFS' COVENANT NOT TO SUE. In consideration of the settlement payments that will be made by each Settling Defendant under the terms of the Consent Decree, and except as specifically provided in Sections VI.B, VI.C, VI.E, and VI.F, the Plaintiffs covenant not to sue or to take administrative action against such Settling Defendant and such additional Releasees as are defined in Section II, pursuant to Sections 106 and 107(a) of CERCLA and Section 7003 of the Resource Conservation and Recovery Act and comparable state law, including but not limited to the California Hazardous Substance Account Act, Health and Safety Code Section 25300, et seq., and/or common law with regard to all 1987 NHOU ROD response costs and all Past Basin-wide response

costs. The covenant not to sue shall take effect as to each Settling Defendant and such additional Releasees as are defined in Section II, other than the Installment Settlors, upon the receipt by Plaintiffs of the payments of that Settling Defendant required by Section V; and as to each Installment Settlor, upon the receipt by the Plaintiffs of the initial payments required by Section V of that Settling Defendant. The covenant not to sue as to each Settling Defendant is conditioned upon the Settling Defendant making all of the payments required of that Settling Defendant by this Consent Decree. The covenant not to sue extends only to the Settling Defendants and the Releasees as defined in Section II, and does not extend to any other person. In the event of any breach by a Settling Defendant of its obligations under this Consent Decree, the covenant not to sue shall remain in effect as to the other Settling Defendants and Releasees despite said breach.

B. PLAINTIFFS' PRE-CERTIFICATION RESERVATIONS. Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse Plaintiffs for costs of response related to such further response actions, if prior to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or
2. information, previously unknown to the Plaintiffs,

is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicates that any remedial action taken at the NHOU Site is not protective of human health or the environment. As of the date of entry of this Consent Decree, EPA agrees that the interim remedial measures being implemented at the NHOU Site under the 1987 NHOU ROD are protective of human health and the environment.

C. PLAINTIFFS' POST-CERTIFICATION RESERVATIONS. Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse the Plaintiffs for such costs of response if, subsequent to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or
2. information, previously unknown to the Plaintiffs, is received, in whole or in part,

and these previously unknown conditions or this information together with other relevant information indicate that any remedial action taken at the NHOU Site is not protective of human health or the environment.

D. INFORMATION AND CONDITIONS KNOWN TO THE PLAINTIFFS. For purposes of Section VI.B, the information and the conditions known to the Plaintiffs shall include only that information and

those conditions set forth in the 1987 NHOU ROD, the administrative record supporting the 1987 NHOU ROD, the San Fernando Valley Phase I Groundwater RI, December 1992, and all documents submitted ~~by the Settling Defendants~~ to EPA in response to CERCLA Section 104(e) inquiries or other EPA requests prior to January 1, 1995 ~~March 31, 1994~~. For purposes of Section VI.C, the information and the conditions known to the Plaintiffs shall include **the information and conditions known to the Plaintiffs for purposes of Section VI.B, and** ~~only~~ that information and those conditions set forth in (i) any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision relating to the NHOU Site; (ii) the administrative record supporting any future Explanation(s) of Decision, or Amendment(s) to any Record of Decision Record(s) of Decision relating to the NHOU Site, ~~the San Fernando Valley Phase I Groundwater RI, December 1992, and~~, (iii) all documents submitted to EPA ~~by the Settling Defendants~~ in response to CERCLA Section 104(e) inquiries or other EPA requests **prior to issuance of the Certification of Completion**; and (iv) the record for the NHOU Site maintained by EPA following issuance of any Record of Decision but prior to issuance of the Certification of Completion.

more work up to present we agreed, [illegible] clarify

E. <u>PLAINTIFFS' GENERAL RESERVATION OF RIGHTS</u>. The covenant not to sue set forth above does not pertain to any matters other than those expressly specified in Section VI.A. The Plaintiffs reserve, and this Consent Decree is without prejudice to, all rights against ~~the~~ each Settling Defendants with respect to all other matters, including, but not limited to, the following:

1. claims based on a failure by the Settling Defendants to meet a requirement of this Consent Decree;
2. liability arising from the past, present, or future disposal, release, or threat of release of hazardous substances outside of the NHOU Site;
3. liability for damages for injury to, destruction of, or loss of natural resources;
4. liability for response costs to enforce CERCLA or any other federal environmental law that have been or may be incurred by any federal agencies other than EPA or the Department of Justice on behalf of EPA;
5. **liability for response costs to enforce CERCLA or ~~the Hazardous Substance Account Act or~~ any ~~other~~ state environmental law that ~~have~~ has been or may be incurred by any state agencies other than DTSC or the State Department of Justice on behalf of DTSC;**
6. criminal liability; and
7. ~~liability, if any, for violations of federal or state law which occur during or after implementation of the Interim Remedial Action selected in the 1987 NHOU ROD, except for any alleged violations of CERCLA Section 107, RCRA Section 7003, or comparable state law based upon conditions addressed in the 1987 NHOU ROD.~~ (Plaintiffs' Strikeout)[3]

cleanup of [illegible] [illegible] by, e.g., RWQCB, [illegible] be [illegible] open, there's an NHOU issue w/ EPA in this, Greg thinks, to prevent multiple enforcement [illegible]

[illegible]

[3] Plaintiffs believe that this language is redundant and therefore unnecessary.

F. PLAINTIFFS' NHOU SITE-SPECIFIC RESERVATION OF RIGHTS. The covenant not to sue set forth above specifically does not pertain to the performance of any Remedial Investigation/ Feasibility Study ("RI/FS") other than the 1986 Operable Unit Feasibility Study that formed the basis for the 1987 NHOU ROD; additional response actions that may be implemented pursuant to any final remedy or pursuant to any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision; costs or activities related to any operable unit other than the NHOU Site, including any future operable unit(s); or any unknown environmental condition as to which Plaintiffs have reserved their rights in Paragraphs C and D above.

Plaintiff State of California currently does not fund the costs of operation and maintenance of the North Hollywood facility and is not seeking to recover such costs in this action. Costs of operations and maintenance are being funded by the United States and LADWP pursuant to contractual agreement. However, in the event that the State subsequently incurs operations and maintenance costs due to a failure by either the United States or the LADWP to fund the operation and maintenance costs of the North Hollywood facility, such costs are not to be considered "1987 NHOU ROD response costs" as defined in this Consent Decree and the State reserves the right to seek recovery of such operations and maintenance costs from any potentially responsible party, including each of the Settling Defendants.

is LADWP funding by itself? If so, the prior mention may not be willful or wrongful EPA gives to LADWP [illegible] [illegible] [illegible] LADWP, [illegible]

G. SETTLING DEFENDANTS' RESERVATION OF RIGHTS. Settling Defendants reserve any and all defenses or rights they may have

with respect to any actions concerning the NHOU Site except any rights expressly waived in this Decree. Settling Defendants retain any and all rights, claims, remedies and defenses that they have or may have against any person or entity not expressly waived in this Decree, except for rights, claims and remedies any Settling Defendant has or may have against any other Settling Defendant(s) or Releasees for matters ~~covered by~~ stemming in this Consent Decree, which are hereby expressly waived. This reservation shall not affect each Settling Defendant's obligation to perform its obligation under this Decree, and shall not affect EPA's ability to assess stipulated penalties in accordance with Section V.C.2 (Stipulated Penalties).

H. SETTLING DEFENDANTS' COVENANT. The Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against either Plaintiff with respect to 1987 NHOU ROD and Past Basin-wide response costs including, but not limited to, (i) any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507), under CERCLA §§106(b)(2), 107, 111, 112, or 113, or any other provision of law; (ii) any claim against the United States or the State, including any department, agency, or instrumentality of the United States or State pursuant to Sections 107 and 113 of CERCLA related to the 1987 NHOU ROD response costs or the Basin-wide past response costs; or (iii) any claims arising out of response activities at the NHOU Site. However, and notwithstanding the foregoing, nothing in this Consent Decree shall be interpreted as waiving, abrogating, or resolving (1) any claims which any Settling Defendant has or may have based upon any alleged liability which the United States Department of Defense, any branch or division thereof, or any predecessor agency has or may have for conditions at the Site pursuant to CERCLA Section 106, 107, 113, 120 or 310, 42 U.S.C. §§ 9606, 9607, 9613, 9620 or 9659, or RCRA Section 7002, 42 U.S.C. § 6972, or (2) any claims which any Settling Defendant has or may have with respect to the 1987 NHOU ROD response costs or Past Basin-wide Response Costs against the United States pursuant to any contract between any Settling Defendant and the United States or any government

contractor(s).[4] Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

VII. CONTRIBUTION PROTECTION

A. Except for the Releasees as defined in Section II, nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Consent Decree. Each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each party may have with respect to any matter, transaction, or occurrence relating in any way to the NHOU Site against any person not a party or Release hereto.

B. With regard to claims for contribution against the ~~Settling Defendants~~ Other Releasees for matters addressed in this Consent Decree, the Parties hereto agree that the ~~Settling Defendants~~[5] Other Releasees are entitled to the protection from contribution actions or claims provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

C. "Matters addressed in this Consent Decree" mean 1987 NHOU ROD response costs and Past Basin-wide response costs.

D. The Settling Defendants agree that with respect to any suit or claim for contribution brought by them for matters ~~related to~~ addressed in this Consent Decree they will notify the Plaintiffs in

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[4] EPA requests that the Settling Defendants inform EPA if they have contracts upon which they believe they may have claims against the United States for the matters addressed in this Consent Decree. To be discussed.

[5] Plaintiffs retain the position that contribution protection applies only to settlors.

writing no later than sixty (60) days prior to the initiation of such suit or claim. The Settling Defendants also agree that with respect to any suit or claim for contribution brought against them for matters ~~related to~~ addressed in this Consent Decree they will notify in writing the Plaintiffs within sixty (60) days of service of the complaint on them. In addition, the Settling Defendants shall notify the Plaintiffs within ten (10) days of service or receipt of any Motion for Summary Judgment for matters ~~related to~~ addressed in this Consent Decree and within ten (10) days of receipt of any order from a court setting a case for trial for matters ~~related~~ addressed in to this Consent Decree.

E. The Settling Parties recognize and acknowledge that the settlement embodied in this Consent Decree relates only to the Interim Remedial Action selected in the 1987 NHOU ROD, as well as Past Basin-wide past response costs, and that additional remedial actions may be necessary to address the contamination at the NHOU Site. In any subsequent administrative or judicial proceeding initiated by the United States or the State and not precluded by this Consent Decree for injunctive relief, recovery of response costs, or other appropriate relief relating to the NHOU Site, the Settling Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Section VII.E affects enforceability of the covenants not to sue set forth in

Section VI.

VIII. NHOU SITE ACCESS

A. Commencing upon the date of entry of this Consent Decree and terminating upon issuance of a final ROD for the NHOU Site, the Settling Defendants who own property at the NHOU Site agree to provide the Plaintiffs and their representatives access at all reasonable times to their facilities located at the NHOU Site and any other property owned or controlled by the Settling Defendants to which access is required for the implementation of response actions for the NHOU Site, including, but not limited to, the following actions:

1. monitoring, investigation, remedial, or other activities at the NHOU Site;
2. verifying any data or information submitted to either Plaintiff;
3. conducting investigations relating to contamination at or near the NHOU Site;
4. obtaining samples; and
5. assessing the need for, planning, or implementing response actions at or near the NHOU Site.

To the extent Plaintiffs deem consistent with protection of human health and the environment, Plaintiffs will provide the Settling Defendant with twenty-four (24) hours' notice prior to entry to properties accessed pursuant to this Consent Decree. In accessing Settling Defendants' properties pursuant to this Consent Decree, Plaintiffs shall not unreasonably interfere with Settling Defendants' business activities. However, nothing in this paragraph shall provide any Settling Defendant with any

claim or cause of action whatsoever against Plaintiffs, including without limitation any claim for injunctive relief. It shall not constitute an unreasonable interference with Settling Defendants' business activities for a Plaintiff to take any action in response to an emergency deemed by such Plaintiff to constitute an endangerment to human health or the environment. Plaintiffs agree to split samples taken on property owned or controlled by a Settling Defendant if requested by the Settling Defendant.

B. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective access authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statute or regulation.

IX. ACCESS TO INFORMATION

A. The Settling Defendants shall provide to the Plaintiffs, upon request, copies of all non-privileged documents and information within their possession or control or that of their contractors or agents relating to the NHOU Interim Remedial Action, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the NHOU Site Interim Remedial Action.

B. The Settling Defendants may assert business confidentiality claims covering part or all of the documents or information submitted to the Plaintiffs under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in

40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to either Plaintiff, or if EPA has notified the Settling Defendants that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to the Settling Defendants.

C. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege in lieu of providing documents, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

D. No claim of confidentiality or privilege shall be made with respect to any document that falls within Section 104(e)(7)(F) of CERCLA, 42 U.S.C. § 9604(e)(7)(F).

E. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective information gathering authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statute or regulation.

X. RETENTION OF RECORDS

A. Until ten (10) years after the entry of this Consent Decree, each Settling Defendant shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to **releases of hazardous substances or liability for** response actions taken at the NHOU Site or the liability of any person for **releases of hazardous substances or liability for**[6] response actions conducted and to be conducted at the NHOU Site, regardless of any corporate retention policy to the contrary.

B. At the conclusion of this document retention period, the Settling Defendants shall notify the Plaintiffs at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by either Plaintiff, the Settling Defendants shall deliver any such records or documents to the Plaintiff who made the request. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege, they shall provide the

[6] This is intended to clarify the model language, but not to change its intent. Defendants will have to exercise their best judgment as to which documents should be retained.

Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

C. Each Settling Defendant hereby certifies, individually, that it has not since notification of potential liability by the United States or the State or the filing of suit against it regarding the NHOU Site altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to its potential liability regarding the NHOU Site which are the sole record of factual information, except as such documents are destroyed or altered in the ordinary course of Settling Defendants' business and in compliance with State and federal law, and have not been destroyed for an improper purpose. Each Settling Defendant further warrants that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6927.

XI. NOTICES AND SUBMISSIONS

Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, the State, and the Settling Defendants, respectively.

As to the United States:

David B. Glazer
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
301 Howard Street, Suite 870
San Francisco, California 94115

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
Re: Case No. 90-11-3-1149

As to EPA:

Remedial Project Manager — North Hollywood Operable Unit
San Fernando Valley Superfund Site
Hazardous Waste Management Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105

Marie M. Rongone
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street, RC-3-3
San Francisco, California 94105

As to the State:

Ann Rushton
Deputy Attorney General, Environment Section
California Department of Justice
300 South Spring Street, #5000
Los Angeles, California 90013

As to the State Department of Toxic Substances Control:

Chief, Site Mitigation Branch
Department of Toxic Substances Control, Region 3
1011 North Grandview Avenue
Glendale, California 91201

As to the Settling Defendants:

For Lockheed Air Terminal and Lockheed Corporation

James Buckley

For Calmat Co.

Paul Stanford
General Counsel
Calmat Co.
3200 San Fernando Road
Los Angeles, California 90065

For Pick Your Part Auto Wrecking

_____

For Waste Management Disposal Services of California, Inc.

General Counsel
3003 Butterfield Road
Oak Brook, Illinois 60521
Facsimile Number: (708) 218-1553

and

Lynn Walker
Senior Environmental Counsel
2400 West Union Avenue, Suite 200
Englewood, Colorado 80110
Phone Number: (303 797-4687
Facsimile Number: (303) 797-3031

For Pacific Steel Treating Company, Inc.

_____

For Niels Bruun-Anderson, as Trustee of Erik and Else Bruun-Anderson Trust

For Fleetwood Machine Products, Inc.

For William L. Cooke and Jerry N. Conrow, as Trustees of the Amended Cooke Family Trust

XII. RETENTION OF JURISDICTION

This Court shall retain jurisdiction of this matter for the purpose of enforcing the terms of this Consent Decree.

XIII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

A. This Consent Decree shall be lodged with the Court for a period of thirty (30) days for public notice and comment. The Plaintiffs reserve the right to withdraw or withhold their consent if the comments regarding the Consent Decree disclose facts or considerations that indicate that this Consent Decree is inappropriate, improper, or inadequate. The Settling Defendants consent to the entry of this Consent Decree without further notice.

B. If for any reason this Court, or upon appeal, a higher court should decline to approve this Consent Decree in the form presented, this agreement is voidable as to a Settling Defendant by written notice by such Settling Defendant **to all other parties,** ~~at the sole discretion of any party,~~ **or as to either Plaintiff by written notice by such Plaintiff to all other parties,** and the terms of the agreement may not be used as evidence in any litigation between **any of** the **remaining** Parties **to this Consent Decree and that Settling Defendant or Plaintiff**

as to whom this Consent Decree is void.

XIV. SECTION HEADINGS

The section headings set forth in this Consent Decree and its Table of Contents are included for convenience or reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Consent Decree.

XV. SIGNATORIES

Each undersigned representative of a Settling Defendant to this Consent Decree, the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice, and the Deputy Attorney General of the California Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such party to this document.

SO ORDERED THIS _____ DAY OF _____, 19__.

_____
United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., and California v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR THE UNITED STATES OF AMERICA

Date: _____

LOIS J. SCHIFFER
Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

DAVID B. GLAZER
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

STEVEN A. HERMAN
Assistant Administrator for Enforcement
U.S. Environmental Protection Agency

Date: _____

FELICIA MARCUS
Regional Administrator, Region IX
U.S. Environmental Protection Agency

FOR THE STATE OF CALIFORNIA

Date: _____

Hamid Saebfar
Chief, Site Mitigation Branch
California Department of Toxic Substances Control, Region 3

Date: _____

ANN RUSHTON

Deputy Attorney General
California Department of Justice

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR DEFENDANTS:

NIELS BRUUN-ANDERSEN

_____
NIELS BRUUN-ANDERSEN
Trustee of the Erik and Else Bruun-Andersen Trust

Date: _____

CALMAT COMPANY

_____
A. FREDERICK GERSTELL
President

Date: _____

FLEETWOOD MACHINE PRODUCTS, INC.

_____
WILLIAM COOKE
President

Date: _____

LOCKHEED AIR TERMINAL, INC.

_____
VIGGO BUTLER
President

Date: _____

LOCKHEED CORPORATION

_____
DANIEL M. TELLEP
President

Date: _____

PACIFIC STEEL TREATING COMPANY, INC.

_____
NIELS BRUUN-ANDERSEN
President

Date: _____

PICK-YOUR-PARTS AUTO WRECKING

_____
GLENN C. MCELROY
President

Date: _____

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR DEFENDANTS:

WASTE MANAGEMENT DISPOSAL
SERVICES OF CALIFORNIA, INC.

_____
GREG LOUGHNANE
President

Date: _____

WILLIAM L. COOKE

JERRY CONROW

_____
WILLIAM L. COOKE
Co-Trustee of the Amended Cooke
Cooke Family Trust

Date: _____

_____
JERRY CONROW
Co-Trustee of the Amended
Cooke Family Trust

Date: _____

LOIS J. SCHIFFER
Assistant Attorney General
Environment & Natural Resources Division
United States Department of Justice

DAVID B. GLAZER
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Attorneys for Plaintiff, United States of America
(Attorneys for Plaintiffs continued on next page)

IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	CIVIL NO. 93-6490-MRP(Tx) PARTIAL CONSENT DECREE
STATE OF CALIFORNIA Plaintiff, v. ALLIED-SIGNAL, INC., et al., Defendants.	PARTIAL CONSENT DECREE

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I. BACKGROUND

A. COMPLAINTS. On October 26, 1993, the United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), and, on October 29, 1993, the State of California ("State"), on behalf of the State Department of Toxic Substances Control (formerly, the Toxic Substances Control Program of the State Department of Health Services), filed complaints in this matter pursuant to Sections 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C. §§ 9607 and 9613. Both the United States and the State ("Plaintiffs") filed, prior to or concurrently with the lodging of this Consent Decree, amended complaints, which add additional defendants to the original complaints. In the amended complaints, the Plaintiffs seek recovery of response costs incurred by the Plaintiffs in connection with actions taken pursuant to CERCLA in response to releases and threatened releases of hazardous substances from the Defendants' facilities in the San Fernando Valley Groundwater Basin ("Basin") and at the North Hollywood Operable Unit Site ("NHOU Site") within the Basin.

B. SITE DESCRIPTION.

1. Basin. The San Fernando Valley Superfund Sites ("SFV Sites") are located in the eastern half of the Basin, between the San Gabriel and the Santa Monica Mountains, in Los Angeles County, California. EPA has divided the SFV Sites in two different ways. For the purpose of placing the SFV Sites on the National Priorities List ("NPL"), EPA divided the SFV Sites into

the following four areas based on the location of drinking water well fields that were known to be contaminated by volatile organic compounds ("VOCs") in 1984: Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). Once more was known about the extent of groundwater contamination and for the purpose of accelerating the investigation and cleanup of the SFV Sites, EPA divided the SFV Sites into the following five Operable Units ("OUs"): North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock.

2. NHOU Site. This Consent Decree focuses on the NHOU Site, originally listed as part of the San Fernando Valley Area 1/North Hollywood Area NPL site. The NHOU Site is comprised of the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates.

C. NATURE OF SITE CONTAMINATION. Tests conducted in the early 1980s to determine the presence of certain industrial chemicals in the State's drinking water revealed extensive VOC contamination in the Basin's groundwater. The primary contaminants of concern were and are the solvents trichloroethene ("TCE") and tetrachloroethene ("PCE"), widely used in a variety of industries including metal plating, machinery degreasing, and dry cleaning. By August 1985, groundwater from 27 of the 35 production wells in the North Hollywood Well Field alone exceeded the Federal Maximum Contaminant Level ("MCL") for TCE. MCLs are

drinking water standards established under the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. § 300f et seq. Other VOC contaminants in the Basin have also been detected above their MCLs. As a result of this groundwater contamination, many production wells have been taken out of service, despite the fact that the Basin's groundwater has been used to supply the domestic water needs of approximately 800,000 people. According to recent estimates, the plumes of TCE contamination above the MCL in the Basin's groundwater extend over an area eleven miles long and as great as three miles wide.

D. NPL LISTING. In June 1986, EPA placed the SFV Sites, which include the NHOU Site, on the NPL (see 51 Federal Register 21054). The NPL is promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and is a list of the most seriously contaminated hazardous substances sites in the country (see 40 C.F.R. Part 300, Appendix B). As stated in Section I.B.1 above, the SFV Sites listed on the NPL are Area 1 (North Hollywood Area), Area 2 (Crystal Springs Area), Area 3 (Verdugo Basin), and Area 4 (Pollock Area). The original boundaries of the SFV Sites were based on the location of the drinking water well fields that were known to be contaminated by VOCs in 1984. Groundwater data collected since 1984 show that VOC groundwater contamination extends beyond the original boundaries drawn at the time the SFV Sites were placed on the NPL.

E. OU DESIGNATION. In 1985, EPA determined that the most effective way of dealing with the spreading groundwater contamination in the Basin was to divide the SFV Sites into OUs. Each OU represents a discrete, interim remedial action that will

inhibit the migration of contamination in the groundwater prior to the completion of a Basin-wide Remedial Investigation ("RI") and Feasibility Study ("FS") and selection of any Basin-wide remedial actions. As stated in Section I.B.1 above, EPA has identified the following five OUs: North Hollywood (the NHOU Site), Burbank, Glendale North, Glendale South, and Pollock. EPA has issued Record of Decision ("ROD") documents selecting interim remedial actions for four of these OUs: NHOU Site (1987), Burbank OU (1989), and Glendale North and South OUs (1993).

F. NHOU SITE FS AND ROD. In November 1986, pursuant to a cooperative agreement with EPA and the State of California, the Los Angeles Department of Water and Power ("LADWP") completed an OU FS for the NHOU Site. After providing an opportunity for the public to comment on the completed OU FS, in September 1987, EPA issued a ROD for the NHOU Site. The interim remedial action selected in the 1987 NHOU ROD is fifteen years of groundwater extraction and treatment.

G. NHOU SITE INTERIM REMEDIAL ACTION. In 1989, pursuant to another cooperative agreement with EPA and the State of California, LADWP constructed the NHOU Site groundwater extraction and treatment facilities. These facilities pump out contaminated groundwater, remove the contaminants from the groundwater, and convey the treated groundwater to LADWP's pump station for distribution to the public. Consistent with Section 104(c)(3) of CERCLA, 42 U.S.C. § 9604(c)(3), EPA paid for ninety percent and the State paid for ten percent of the construction costs of the extraction and treatment facilities; and EPA is paying for ninety percent and the State is responsible for paying

ten percent of the operating costs of the NHOU Site interim remedial action. Pursuant to its cooperative agreement with EPA and the State of California, LADWP will continue to operate and maintain the NHOU Site Interim Remedial Action.

H. BASIN-WIDE GROUNDWATER AND SOIL CLEANUP ACTIVITIES. Remediation of groundwater in the Basin is a collaborative undertaking of EPA, the State, LADWP, and the California Regional Water Quality Control Board, Los Angeles Region ("RWQCB"). In December 1992, pursuant to another cooperative agreement with EPA, LADWP completed the Phase 1 Basin-wide groundwater RI. EPA is currently preparing a Basin-wide groundwater FS. In addition to groundwater investigation and remediation activities, EPA, in conjunction with the State and RWQCB, has conducted and continues to conduct soil investigations at individual facilities throughout the Basin to uncover potential sources of groundwater contamination. In September 1989, EPA entered into a cooperative agreement with RWQCB to provide funds to augment the State's program to investigate sources of groundwater contamination in the Basin.

I. PLAINTIFFS' ALLEGATION OF DEFENDANTS' LIABILITY. The Plaintiffs allege that: (i) the past, present, or potential migrations of "hazardous substances," as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), from the Defendants' "facilities," as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), constitute actual or threatened "releases," as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22); (ii) the Defendants are persons subject to liability under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a); (iii) the releases or threatened

releases of hazardous substances from the Defendants' facilities have caused the Plaintiffs to incur and to continue to incur "response" costs, within the meaning of Section 101(25) of CERCLA, 42 U.S.C. § 9601(25); and (iv) the actions taken by the Plaintiffs in response to releases or threatened releases of hazardous substances from the Defendants' facilities were not inconsistent with the National Contingency Plan.

J. SETTLING DEFENDANTS' DENIAL OF LIABILITY. The Defendants that have entered into this Consent Decree ("Settling Defendants") do not admit and expressly deny any liability to the Plaintiffs arising out of the transactions or occurrences alleged in the amended complaints or as set forth above. The Plaintiffs and the Settling Defendants agree that neither this Consent Decree, nor the entry into settlement, nor any payments pursuant to this Consent Decree shall constitute or be construed as a finding or an admission, adjudication or acknowledgement of any fact or law, or of any liability, fault or wrongdoing, or evidence of such, or an admission of violation of any law, rule or regulation by Settling Defendants nor as an estoppel or waiver of any defenses of Settling Defendants except as provided in Section VI.G of this Consent Decree.

K. PURPOSE.

1. Pursuant to a cooperative agreement with EPA and the State of California, LADWP is implementing the NHOU Interim Remedial Action selected in the 1987 NHOU ROD. The purpose of this Consent Decree is to avoid prolonged litigation and to provide for the Settling Defendants' payment of specified amounts of the past and future response costs for the NHOU Interim

Remedial Action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to their facilities located at the NHOU Site in full and complete satisfaction of any and all claims against Settling Defendants for such costs.

2. The parties to this Consent Decree ("Parties") recognize that the Settling Defendants' payment represents only a part of the total cost of the NHOU Interim Remedial Action selected in the 1987 NHOU ROD and of the past costs of Basin-wide investigations relating to the facilities located at the NHOU Site.

3. In entering into this Consent Decree, the Plaintiffs have considered the circumstances of the releases and threatened releases of hazardous substances in the Basin, the involvement of the Settling Defendants in the ownership and/or operation of facilities located at the NHOU Site and the willingness and capacity of Settling Defendants and the other Defendants to resolve this matter.

4. The Parties agree, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and implementation of this Consent Decree will expedite the cleanup of the NHOU Site and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the parties to this Consent Decree, it is ORDERED, ADJUDGED, AND DECREED:

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in

this Consent Decree that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in any appendices attached hereto and incorporated hereunder, the following definitions shall apply:

A. "Basin-wide response costs" shall mean all costs that the Plaintiffs have incurred or may incur for Basin-wide/non-operable unit specific investigations or other non-operable unit specific response actions.

B. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

C. "Certification of Completion" shall mean EPA's certification pursuant to Section 122(f)(3) of CERCLA, 42 U.S.C. § 9622(f)(3), that all remedial actions have been completed that relate to the NHOU Site in accordance with the requirements of the National Contingency Plan and any applicable Record of Decision.

D. "Consent Decree" shall mean this Decree and any attached appendices. In the event of conflict between this Decree and any appendix, this Decree shall control.

E. "Day" shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal Holiday, the period shall run until the close of business of the next working day.

F. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of

the United States.

G. "Future Basin-wide Response Costs" shall mean all Basin-wide response costs that EPA has incurred or will incur after April 30, 1992 and that the State has incurred or will incur after December 31, 1993.

H. "Interest," in accordance with Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507. In calculating interest, Plaintiffs may compound on a monthly or annual basis.

I. "Interim Remedial Action" shall mean the interim remedial action selected in the 1987 NHOU ROD.

J. "North Hollywood Operable Unit" or "NHOU Site" shall mean the areal extent of hazardous substance groundwater contamination that is presently located in the vicinity of the North Hollywood Well Field and includes any areas to which and from which such hazardous substance groundwater contamination migrates. EPA has determined that each of the Settling Defendants has owned and/or operated and/or currently owns and/or operates facilities that are located at the NHOU Site and/or has arranged for the disposal of hazardous substances at a facility located at the NHOU Site.

K. "Parties" shall mean the United States, the State of California, and the Settling Defendants.

L. "Past Basin-wide response costs" shall mean Basin-wide Response Costs incurred by EPA prior to and including April 30, 1992 and Basin-wide Response Costs incurred by the State prior to

and including December 31, 1993.

M. "Plaintiffs" shall mean the United States and the State of California.

N. "Releasees" shall mean Settling Defendants and their officers, directors, employees and agents, and where the Settling Defendant is a trustee, its successor trustees appointed to carry out the purposes of said trust; and where the Settling Defendant is a corporate entity, its corporate successors to potential liability for the NHOU Site. "Releasees" shall also mean the following named entities associated with one or more of the Settling Defendants:

<u>Affiliates of Waste Management Recycling & Disposal Services of California, Inc.</u>:

Waste Management Disposal Services of California, Inc. ("WMDSC") f/k/a Valley Reclamation Co.; Bradley Landfill and Recycling Center, a division of WMDSC; Waste Management of California, Inc., including, but not limited to, its divisions Waste Management of Los Angeles-North, f/k/a Waste Management of San Fernando Valley, Waste Management of Los Angeles-South, f/k/a Waste Management of Gardena, and Universal Refuse Removal of El Cajon, f/k/a Universal Refuse Removal, Inc.; Waste Management Collection and Recycling, Inc., f/k/a Inland Disposal, Inc., including, but not limited to its divisions American Waste Systems, f/k/a American Waste Systems, Inc. and Waste Transfer and Recycling f/k/a Waste Transfer and Recycling, Inc.; Waste Management, Inc., and WMX Technologies, Inc.

Affiliates of Lockheed Martin Corporation (f/k/a Lockheed Corporation) and/or Airport Group International, Inc. (f/k/a Lockheed Air Terminal, Inc.:

Lockheed Martin Corporation and its current and former subsidiaries, divisions and affiliates, including but not limited to Lockheed Martin Aeronautical Systems, f/k/a Lockheed Aeronautical Systems Company; and Lockheed Martin Skunk Works, f/k/a Lockheed Advanced Development Company; Airport Group International, Inc., f/k/a/ Lockheed Air Terminal, Inc., a wholly-owned subsidiary of Airport Group International Holdings, L.L.C., Lockheed Missiles & Space Company, Inc.; and Lockheed Corporation.

Affiliates of CalMat Co.:

CalMat Land Co., CalMat Properties Co., CalMat of Central California, CC Plaza Co., Coast Asphalt, Inc., Huntmix, Inc., Industrial Asphalt, Kirst Construction Co., Inc., Reliance Land Co., Reliance Transport Co., Rio Norte Este Co., River Vista Development Co., River Bend Corp., Sanger Rock and Sand, Sloan Canyon Sand Co., Triangle Rock Products, Inc., Western Thermal Soils Co.

Affiliates of Pick-Your-Part Auto Wrecking:

Sun Valley Pick-Your-Part Auto Wrecking; Pick Your Part Auto Recycling; The City Tow; Memory Lane Collector Car Parts; Insurance Salvage Service; Master Mining Systems; Multi-Metals; Pick Your Car; Yermo Signs; Cook, Carlton & Lee Advertising Company; Top Line Lien Sales; Help Yourself Auto Wrecking; Sun Valley Repair Shop; Hayward Associates; Contamination Clean-Up of

California, Inc.

Affiliates of Niels Bruun Andersen, as Trustee of the Erik and Else Bruun-Andersen Trust, and of Pacific Steel Treating Co., Inc.:

Niels-Bruun Andersen
608 Batcheller Lane
Sioux Falls, SD 57105

Erik Andersen
c/o Pacific Magnetic and Penetrant Co., Inc.
6837 Farmdale Ave.
North Hollywood, CA 91605

However, Releasees shall not include any person or entity with liability for the NHOU Site independent of that person's or entity's association with a Settling Defendant.

O. "Settling Defendants" shall mean CalMat Co.; Fleetwood Machine Products, Inc.; Airport Group International, Inc. (f/k/a Lockheed Air Terminal, Inc.); Lockheed Martin Corporation (f/k/a Lockheed Corporation); Pacific Steel Treating Company, Inc.; Pick-Your-Part Auto Wrecking; Waste Management Disposal Services of California, Inc.; Niels Bruun-Andersen, in his capacity as Trustee of the Erik and Else Bruun-Andersen Trust; and William L. Cooke and Jerry Conrow, in their capacity as Trustees of the Amended Cooke Family Trust.

P. "State" shall mean the State of California.

Q. "United States" shall mean the United States of America.

R. "1987 NHOU ROD" shall mean the EPA Record of Decision

relating to the North Hollywood Operable Unit of the San Fernando Valley Area 1/North Hollywood Area National Priorities List site that was signed in September 1987 by the EPA Region IX Deputy Regional Administrator, acting for the Regional Administrator, and all attachments thereto.

S. "1987 NHOU ROD response costs" shall mean all past and future costs that the Plaintiffs or any other person have incurred or will incur for implementation of the remedy selected in the 1987 NHOU ROD.

III. JURISDICTION

This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Settling Defendants. Solely for the purposes of this Consent Decree, the Settling Defendants waive all objections and defenses that they may have to jurisdiction of this Court or to venue in this District and shall not challenge the entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

IV. PARTIES BOUND

This Consent Decree is binding upon the Plaintiffs, and upon the Settling Defendants and their heirs, successors, and assigns. Any change in ownership or corporate or other legal status, including but not limited to any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of the Settling Defendants under this Consent Decree.

V. REIMBURSEMENT OF RESPONSE COSTS

A. PAYMENT OF RESPONSE COSTS. Except as otherwise provided in Paragraph V.F, within thirty (30) days of entry of this Consent Decree, each Settling Defendant shall pay the settlement amount it is obligated to pay pursuant to Paragraph V.F below to the United States and to the State for 1987 NHOU ROD response costs and Past Basin-wide response costs.

B. FORM OF PAYMENT. Payment to the United States by each Settling Defendant shall be made by Electronic Funds Transfer ("EFT") to the U.S. Department of Justice lockbox, referencing CERCLA Site/Spill identifier Nos. N1 and 59, and the U.S.A.O. No. 9305960. Payment shall be made in accordance with instructions provided by Plaintiff United States to the Settling Defendants upon execution of the Consent Decree. Any EFT received at the Department of Justice lockbox bank after 2:00 P.M. Eastern Time will be credited on the next business day. At the time of payment, each Settling Defendant shall simultaneously send written notice of payment and a copy of any transmittal documentation to the United States and EPA as specified in Section XI. The notice shall reference the North Hollywood Operable Unit/San Fernando Valley Area I Site and the civil action number 93-6490-MRP(Tx.). Payment to the State shall be made in the form of a certified check or cashier's check made payable to "Cashier, Department of Toxic Substances Control," and shall be forwarded to:

Department of Toxic Substances Control
State of California
Accounting Office
400 P Street, 4th Floor

Sacramento, California 95814

Each Settling Defendant shall send a transmittal letter with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site, Project Nos. 300126 and 300287. Each Settling Defendant shall also send a copy of its check and transmittal letter to the State as specified in Section XI.

C. FAILURE TO MAKE TIMELY PAYMENTS

1. Interest on Late Payments. In the event that any payments required under Section V are not made when due, interest on the unpaid amount shall begin to accrue thirty (30) days after the effective date of this Consent Decree, at the rate specified in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), through the date of payment.

2. Stipulated Penalties. If any amounts due to the Plaintiffs under this Consent Decree are not paid by the required date, the delinquent Settling Defendant shall pay as a stipulated penalty, in addition to the interest required by Section V.C.1 above, $1000 for the first 30 days and $5,000 thereafter per day that such payment is late. Stipulated penalties are due and payable within thirty (30) days of the delinquent Settling Defendant's receipt from either Plaintiff of a demand for payment of the penalties. All payments of stipulated penalties to the United States shall be made in the form of a certified check or cashier's check made payable to "EPA Hazardous Substance Superfund," and shall be forwarded to:

U.S. Environmental Protection Agency, Region IX
Superfund Accounting
P.O. Box 360863M
Pittsburgh, Pennsylvania 15251
Attention: Collection Officer for Superfund

The delinquent Settling Defendant shall send a transmittal letter with the check referencing the North Hollywood Operable Unit/San Fernando Valley Area 1 Site and the civil action number 93-6490-MRP(Tx), and shall also state that the funds are to be applied to site spill identifier numbers N1 and 59. The delinquent Settling Defendant shall also send copies of the check and transmittal letter to the United States as specified in Section XI. All payments of stipulated penalties to the State shall be made in the form and manner specified in Section V.B above. Penalties shall accrue as provided above regardless of whether Plaintiffs have notified the delinquent Settling Defendant of the violation or made a demand for payment, but need only be paid upon demand. However, payment shall be considered timely with respect to each Settling Defendant so long as the Settling Defendant has given timely instructions to a competent financial institution for the subject Electronic Funds Transfer to be made in a timely manner, and has promptly upon the transfer obtained a written verification from the financial institution that the Electronic Funds Transfer was made in accordance with the Settling Defendant's instructions.

D. COLLECTION ACTIONS. If either Plaintiff must bring an action to collect any payment required by this Consent Decree, the delinquent Settling Defendant shall reimburse the Plaintiff bringing the action for all costs of such action, including but not limited to costs of attorney time.

E. RELATION TO OTHER REMEDIES. Payments made under Section V shall be in addition to any other remedies or sanctions available to the Plaintiffs by virtue of a delinquent Settling

Defendant's failure to make timely payments required by this Consent Decree.

F. PAYMENT SCHEDULE. The Settling Defendants shall pay the United States and the State the following sums, when and in the manner described in paragraphs V.A and B, above.

	United States	State of California
Lockheed Martin Corporation f/k/a Lockheed Corporation/ Airport Group International, Inc. f/k/a Lockheed Air Terminal, Inc.	$ 2,600,000	$ 133,572
Calmat Co./Pick Your Part Auto Wrecking/Waste Management Disposal Services of California, Inc.	$ 1,500,000	$ 78,215
Pacific Steel Treating Company/ Inc./Niels Bruun-Andersen, as Trustee of Erik and Else Bruun-Andersen Trust	$ 325,000	$ 16,947
Fleetwood Machine Products, Inc./William L. Cooke and Jerry Conrow, as Trustees of the Amended Cooke Family Trust	$ 325,000	$ 16,947

In lieu of the lump sum settlement payment specified in Paragraph F above, the following Settling Defendants: Fleetwood Machine Products, Inc., William L. Cooke and Jerry Conrow, as Trustees of the Amended Cooke Family Trust, hereinafter "Installment Settlors," may make payments as follows:

Installment Settlors shall pay $ 75,000 when and in the manner described in Paragraphs V.A. and B above in accordance with instructions provided by Plaintiff United States to the Installment Settlors upon execution of the Consent Decree. The Installment Settlors shall pay the balance owed to Plaintiff United States within six months of execution of the Consent Decree. Interest shall accrue up to the date the balance,

including any accrued interest, is paid.

It is understood between Plaintiffs and Installment Settlors that the Installment Settlors shall attempt to sell the real property known as 2902 Washington Street, Phoenix, Arizona, in satisfaction of their remaining $ 250,000 obligation to Plaintiff United States under this Consent Decree. It is understood by Plaintiff State and Installment Settlors that all sale proceeds in excess of $ 250,000 shall be immediately applied to pay some or all of the Installment Settlors' liability to Plaintiff State. In the event no real property sale proceeds are available, the Installment Settlors shall pay their liability to the State of California in accordance with instructions provided by Plaintiff State to Installment Settlors, in two equal payments, the first being due within six months of execution of this Consent Decree, and the balance owed to Plaintiff State within one year of execution of this Consent Decree.

VI. COVENANTS NOT TO SUE AND RESERVATIONS OF RIGHTS

A. PLAINTIFFS' COVENANT NOT TO SUE. In consideration of the settlement payments that will be made by each Settling Defendant under the terms of the Consent Decree, and except as specifically provided in Sections VI.B, VI.C, VI.E, and VI.F, the Plaintiffs covenant not to sue or to take administrative action against such Settling Defendant and such additional Releasees as are defined in Section II, pursuant to Sections 106 and 107(a) of CERCLA and Section 7003 of the Resource Conservation and Recovery Act and comparable state law, including but not limited to the California Hazardous Substance Account Act, Health and Safety Code Section 25300, et seq., and/or common law with regard to all

1987 NHOU ROD response costs and all Past Basin-wide response costs. The covenant not to sue shall take effect as to each Settling Defendant and such additional Releasees as are defined in Section II, other than the Installment Settlors, upon the receipt by Plaintiffs of the payments of that Settling Defendant required by Section V; and as to each Installment Settlor, upon the receipt by the Plaintiffs of the initial payments required by Section V of that Settling Defendant. The covenant not to sue as to each Settling Defendant is conditioned upon the Settling Defendant making all of the payments required of that Settling Defendant by this Consent Decree. The covenant not to sue extends only to the Settling Defendants and the Releasees as defined in Section II, and does not extend to any other person. In the event of any breach by a Settling Defendant of its obligations under this Consent Decree, the covenant not to sue shall remain in effect as to the other Settling Defendants and Releasees despite said breach.

B. PLAINTIFFS' PRE-CERTIFICATION RESERVATIONS. Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse Plaintiffs for costs of response related to such further response actions, if prior to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or

2. information, previously unknown to the Plaintiffs, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicates that any remedial action taken at the NHOU Site is not protective of human health or the environment. As of the date of entry of this Consent Decree, EPA agrees that the interim remedial measures being implemented at the NHOU Site under the 1987 NHOU ROD are protective of human health and the environment.

C. PLAINTIFFS' POST-CERTIFICATION RESERVATIONS. Notwithstanding any other provision of this Consent Decree, the Plaintiffs reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel the Settling Defendants (i) to perform further response actions relating to the NHOU Site or (ii) to reimburse the Plaintiffs for such costs of response if, subsequent to the Certification of Completion:

1. conditions at the NHOU Site, previously unknown to the Plaintiffs, are discovered, or
2. information, previously unknown to the Plaintiffs, is received, in whole or in part,

and these previously unknown conditions or this information together with other relevant information indicate that any remedial action taken at the NHOU Site is not protective of human health or the environment.

D. INFORMATION AND CONDITIONS KNOWN TO THE PLAINTIFFS. For purposes of Section VI.B, the information and the conditions

known to the Plaintiffs shall include only that information and those conditions set forth in the 1987 NHOU ROD, the administrative record supporting the 1987 NHOU ROD, the San Fernando Valley Phase I Groundwater RI, December 1992, and all documents submitted to EPA in response to CERCLA Section 104(e) inquiries or other EPA requests prior to September 1, 1995. For purposes of Section VI.C, the information and the conditions known to the Plaintiffs shall include the information and conditions known to the Plaintiffs for purposes of Section VI.B, and that information and those conditions set forth in (i) any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision relating to the NHOU Site; (ii) the administrative record supporting any future Explanations of Significant Differences, Record(s) of Decision, or Amendments to any Records of Decision relating to the NHOU Site, (iii) all documents submitted to EPA in response to CERCLA Section 104(e) inquiries or other EPA requests prior to issuance of the Certification of Completion; and (iv) the record for the NHOU Site maintained by EPA following issuance of any Record of Decision but prior to issuance of the Certification of Completion.

E. PLAINTIFFS' GENERAL RESERVATION OF RIGHTS. The covenant not to sue set forth above does not pertain to any matters other than those expressly specified in Section VI.A. The Plaintiffs reserve, and this Consent Decree is without prejudice to, all rights against each Settling Defendant with respect to all other matters, including, but not limited to, the following:

1. claims based on a failure by that Settling Defendant to meet a requirement of this Consent Decree;
2. liability arising from the past, present, or future disposal, release, or threat of release of hazardous substances outside of the NHOU Site;
3. liability for damages for injury to, destruction of, or loss of natural resources;
4. liability for response costs to enforce CERCLA or any other federal environmental law that have been or may be incurred by any federal agencies other than EPA or the Department of Justice on behalf of EPA;
5. liability for response costs to enforce CERCLA or any state environmental law that has been or may be incurred by any state agencies other than DTSC or the State Department of Justice on behalf of DTSC; and
6. criminal liability.

F. PLAINTIFFS' NHOU SITE-SPECIFIC RESERVATION OF RIGHTS. The covenant not to sue set forth above specifically does not pertain to the performance of any Remedial Investigation/ Feasibility Study ("RI/FS") other than the 1986 Operable Unit Feasibility Study that formed the basis for the 1987 NHOU ROD; additional response actions that may be implemented pursuant to any final remedy or pursuant to any future Explanation(s) of Significant Differences, Record(s) of Decision, or Amendment(s) to any Record of Decision; costs or activities related to any

operable unit other than the NHOU Site, including any future operable unit(s); or any unknown environmental condition as to which Plaintiffs have reserved their rights in Paragraphs C and D above.

Plaintiff State of California currently does not fund the costs of operation and maintenance of the North Hollywood facility and is not seeking to recover such costs in this action. Costs of operations and maintenance are being funded by the United States and LADWP pursuant to contractual agreement. However, in the event that the State subsequently incurs operations and maintenance costs due to a failure by either the United States or the LADWP to fund the operation and maintenance costs of the North Hollywood facility, such costs are not to be considered "1987 NHOU ROD response costs" as defined in this Consent Decree and the State reserves the right to seek recovery of such operations and maintenance costs from any potentially responsible party, including each of the Settling Defendants.

G. SETTLING DEFENDANTS' RESERVATION OF RIGHTS. Settling Defendants reserve any and all defenses or rights they may have with respect to any actions concerning the NHOU Site except any rights expressly waived in this Decree. Settling Defendants retain any and all rights, claims, remedies and defenses that they have or may have against any person or entity not expressly waived in this Decree, except for rights, claims and remedies any Settling Defendant has or may have against any other Settling Defendant(s) or Releasees for matters addressed in this Consent Decree, which are hereby expressly waived. This reservation shall not affect each Settling Defendant's obligation to perform

its obligation under this Decree, and shall not affect EPA's ability to assess stipulated penalties in accordance with Section V.C.2 (Stipulated Penalties).

H. SETTLING DEFENDANTS' COVENANT. The Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against either Plaintiff with respect to 1987 NHOU ROD and Past Basin-wide response costs including, but not limited to, (i) any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507), under CERCLA §§106(b)(2), 107, 111, 112, or 113, or any other provision of law; (ii) any claim against the United States or the State, including any department, agency, or instrumentality of the United States or State pursuant to Sections 107 and 113 of CERCLA related to the 1987 NHOU ROD response costs or the Basin-wide past response costs; or (iii) any claims arising out of response activities at the NHOU Site. However, and notwithstanding the foregoing, nothing in this Consent Decree shall be interpreted as waiving, abrogating, or resolving (1) any claims which any Settling Defendant has or may have based upon any alleged liability which the United States Department of Defense, any branch or division thereof, or any predecessor agency has or may have for conditions at the Site pursuant to CERCLA Section 106, 107, 113, 120 or 310, 42 U.S.C. §§ 9606, 9607, 9613, 9620 or 9659, or RCRA Section 7002, 42 U.S.C. § 6972, or (2) any claims which any Settling Defendant has or may have with respect to the 1987 NHOU ROD response costs or Past Basin-wide Response Costs against the United States pursuant to any contract between any

Settling Defendant and the United States or any government contractor(s). Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

VII. CONTRIBUTION PROTECTION

A. Except for the Releasees as defined in Section II, nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a party to this Consent Decree. Each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each party may have with respect to any matter, transaction, or occurrence relating in any way to the NHOU Site against any person not a party hereto or a Releasee.

B. With regard to claims for contribution against the Releasees for matters addressed in this Consent Decree, the Parties hereto agree that the Releasees are entitled to the protection from contribution actions or claims provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

C. "Matters addressed in this Consent Decree" mean 1987 NHOU ROD response costs and Past Basin-wide response costs and shall include any claim for such costs that either Plaintiff has or may have against any Releasee with respect to any facility located within the NHOU Site, subject only to the following qualifications and exceptions. "Matters addressed in this Consent Decree" shall include, but not be limited to, any claim for such costs that either Plaintiff has or may have against

CalMat Co. or any Releasees described in Section II above as affiliates of CalMat Co. with respect to the facility located at 8251 Tujunga Avenue, Sun Valley, California, but shall not include any other claim for response costs that either Plaintiff has or may have against any Releasee based upon that Releasee's CERCLA section 107(a) liability for release of a hazardous substance from a facility described in the Plaintiffs' first amended complaint(s) in these consolidated actions as a facility currently owned or operated by any defendant other than Settling Defendants.

D. The Settling Defendants agree that with respect to any suit or claim for contribution brought by them for matters addressed in this Consent Decree they will notify the Plaintiffs in writing no later than sixty (60) days prior to the initiation of such suit or claim. The Settling Defendants also agree that with respect to any suit or claim for contribution brought against them for matters addressed in this Consent Decree they will notify in writing the Plaintiffs within sixty (60) days of service of the complaint on them. In addition, the Settling Defendants shall notify the Plaintiffs within ten (10) days of service or receipt of any Motion for Summary Judgment for matters addressed in this Consent Decree and within ten (10) days of receipt of any order from a court setting a case for trial for matters addressed in this Consent Decree.

E. The Settling Parties recognize and acknowledge that the settlement embodied in this Consent Decree relates only to the Interim Remedial Action selected in the 1987 NHOU ROD, as well as Past Basin-wide past response costs, and that additional remedial

actions may be necessary to address the contamination at the NHOU Site. In any subsequent administrative or judicial proceeding initiated by the United States or the State and not precluded by this Consent Decree for injunctive relief, recovery of response costs, or other appropriate relief relating to the NHOU Site, the Settling Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Section VII.E affects the enforceability of the covenants not to sue set forth in Section VI.

VIII. NHOU SITE ACCESS

A. Commencing upon the date of entry of this Consent Decree and terminating upon issuance of a final ROD for the NHOU Site, the Settling Defendants who own property at the NHOU Site agree to provide the Plaintiffs and their representatives access at all reasonable times to their facilities located at the NHOU Site and any other property owned or controlled by the Settling Defendants to which access is required for the implementation of response actions for the NHOU Site, including, but not limited to, the following actions:

1. monitoring, investigation, remedial, or other activities at the NHOU Site;
2. verifying any data or information submitted to either Plaintiff;

3. conducting investigations relating to contamination at or near the NHOU Site;

4. obtaining samples; and

5. assessing the need for, planning, or implementing response actions at or near the NHOU Site.

To the extent Plaintiffs deem consistent with protection of human health and the environment, Plaintiffs will provide the Settling Defendant with twenty-four (24) hours' notice prior to entry to properties accessed pursuant to this Consent Decree. In accessing Settling Defendants' properties pursuant to this Consent Decree, Plaintiffs shall not unreasonably interfere with Settling Defendants' business activities. However, nothing in this paragraph shall provide any Settling Defendant with any claim or cause of action whatsoever against Plaintiffs, including without limitation any claim for injunctive relief. It shall not constitute an unreasonable interference with Settling Defendants' business activities for a Plaintiff to take any action in response to an emergency deemed by such Plaintiff to constitute an endangerment to human health or the environment. Plaintiffs agree to split samples taken on property owned or controlled by a Settling Defendant if requested by the Settling Defendant.

B. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective access authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statute or regulation.

IX. ACCESS TO INFORMATION

A. The Settling Defendants shall provide to the Plaintiffs, upon request, copies of all non-privileged documents

and information within their possession or control or that of their contractors or agents relating to the NHOU Interim Remedial Action, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the NHOU Site Interim Remedial Action.

B. The Settling Defendants may assert business confidentiality claims covering part or all of the documents or information submitted to the Plaintiffs under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to either Plaintiff, or if EPA has notified the Settling Defendants that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to the Settling Defendants.

C. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege in lieu of providing documents, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of

the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

D. No claim of confidentiality or privilege shall be made with respect to any document that falls within Section 104(e)(7)(F) of CERCLA, 42 U.S.C. § 9604(e)(7)(F).

E. Notwithstanding any provision of this Consent Decree, the Plaintiffs retain all of their respective information gathering authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statute or regulation.

X. RETENTION OF RECORDS

A. Until ten (10) years after the entry of this Consent Decree, each Settling Defendant shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to releases of hazardous substances or liability for response actions taken at the NHOU Site or the liability of any person for releases of hazardous substances or liability for response actions conducted and to be conducted at the NHOU Site, regardless of any corporate retention policy to the contrary.

B. At the conclusion of this document retention period, the Settling Defendants shall notify the Plaintiffs at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by either Plaintiff, the Settling Defendants shall deliver any such records or documents to the Plaintiff who made the request. The Settling Defendants may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal or state law. If the Settling Defendants assert such a privilege, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted. However, no documents, reports, or other information created or generated pursuant to the requirements of this or any other consent decree with the United States shall be withheld on the grounds that they are privileged. If a claim of privilege applies only to a portion of a document, the document shall be provided to Plaintiffs in redacted form to mask the privileged information only.

C. Each Settling Defendant hereby certifies, individually, that it has not since notification of potential liability by the United States or the State or the filing of suit against it regarding the NHOU Site altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other

information relating to its potential liability regarding the NHOU Site which are the sole record of factual information, except as such documents are destroyed or altered in the ordinary course of Settling Defendants' business and in compliance with State and federal law, and have not been destroyed for an improper purpose. Each Settling Defendant further warrants that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6927.

XI. NOTICES AND SUBMISSIONS

Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, the State, and the Settling Defendants, respectively.

As to the United States:

David B. Glazer
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
301 Howard Street, Suite 870
San Francisco, California 94115

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station

Washington, D.C. 20044
Re: Case No. 90-11-3-1149

As to EPA:

Remedial Project Manager — North Hollywood Operable Unit
San Fernando Valley Superfund Site
Hazardous Waste Management Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105

Marie M. Rongone
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street, RC-3-3
San Francisco, California 94105

As to the State of California Department of Toxic Substances Control:

Ann Rushton
Deputy Attorney General, Environment Section
California Department of Justice
300 South Spring Street, #5000
Los Angeles, California 90013

Chief, Site Mitigation Branch
Department of Toxic Substances Control, Region 3
1011 North Grandview Avenue
Glendale, California 91201

As to the Settling Defendants:

For Airport Group International and Lockheed Martin Corporation

Dominic J. Hanket, Esq.
Assistant General Counsel
Lockheed Martin Corporation
4500 Park Granada Boulevard
Calabasas, CA 91399-0410

For CalMat Co.

Paul Stanford
General Counsel
CalMat Co.
3200 San Fernando Road
Los Angeles, California 90065

For Pick Your Part Auto Wrecking

Glenn McElroy
Pick-Your-Part Auto Wrecking

1301 East Orangewood
Anaheim, California 92805

For Waste Management Disposal Services of California, Inc.

General Counsel
3003 Butterfield Road
Oak Brook, Illinois 60521

and

P.B. "Lynn" Walker
Senior Environmental Counsel
3900 S. Wadsworth Blvd., Ste. 800
Lakewood, CO 80235

For Pacific Steel Treating Company, Inc. and the Erik and Else Bruun-Anderson Trust

Niels Bruun Andersen
608 Batcheller Lane
Sioux Falls, SD 57105

Erik Andersen
c/o Pacific Magnetic and Penetrant Co., Inc.
6837 Farmdale Ave.
North Hollywood, CA 91605

For William L. Cooke and Jerry N. Conrow, as Trustees of the Amended Cooke Family Trust, and for Fleetwood Machine Products, Inc.

Charles H. Pomeroy
McKenna & Cuneo
444 S. Flower St., 7th floor
Los Angeles, CA 90071

XII. RETENTION OF JURISDICTION

This Court shall retain jurisdiction of this matter for the purpose of enforcing the terms of this Consent Decree.

XIII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

A. This Consent Decree shall be lodged with the Court for a period of thirty (30) days for public notice and comment. The Plaintiffs reserve the right to withdraw or withhold their

consent if the comments regarding the Consent Decree disclose facts or considerations that indicate that this Consent Decree is inappropriate, improper, or inadequate. The Settling Defendants consent to the entry of this Consent Decree without further notice.

B. If for any reason this Court, or upon appeal, a higher court should decline to approve this Consent Decree in the form presented, this agreement is voidable as to a Settling Defendant by written notice by such Settling Defendant to all other parties, or as to either Plaintiff by written notice by such Plaintiff to all other parties, and the terms of the agreement may not be used as evidence in any litigation between any of the remaining Parties to this Consent Decree and that Settling Defendant or Plaintiff as to whom this Consent Decree is void.

XIV. SECTION HEADINGS

The section headings set forth in this Consent Decree and its Table of Contents are included for convenience or reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Consent Decree.

XV. SIGNATORIES

Each undersigned representative of a Settling Defendant to this Consent Decree, the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice, and the Deputy Attorney General of the California Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such party to this document.

SO ORDERED THIS _____ DAY OF _____, 19__.

_____
United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., and California v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR THE UNITED STATES OF AMERICA

Date: _____

LOIS J. SCHIFFER
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

DAVID B. GLAZER
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice

Date: _____

GERALD M. CLIFFORD
Assistant Administrator for Enforcement
U.S. Environmental Protection Agency

Date: _____

FELICIA MARCUS
Regional Administrator, Region IX
U.S. Environmental Protection Agency

Date: _____

MARIE M. RONGONE
Assistant Regional Counsel, Region IX
U.S. Environmental Protection Agency

FOR THE STATE OF CALIFORNIA

Date: _____

_____
Hamid Saebfar
Chief, Site Mitigation Branch
California Department of Toxic
Substances Control, Region 3

Date: _____

_____
ANN RUSHTON
Deputy Attorney General
California Department of Justice

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of U.S. v. Allied-Signal, Inc., et al., 93-6490-MRP(Tx), and California v. Allied-Signal, Inc., et al., 93-6570-MRP(Tx), North Hollywood Operable Unit/San Fernando Valley Area 1 Site.

FOR DEFENDANTS:

LOCKHEED MARTIN CORPORATION (f/k/a Lockheed Corporation)
AIRPORT GROUP INTERNATIONAL, INC. (f/k/a Lockheed Air Terminal, Inc.)

_____
VINCENT N. MARAFINO
Executive Vice-President, Lockheed Martin Corporation

Date: _____

WASTE MANAGEMENT RECYCLING AND DISPOSAL SERVICES OF CALIFORNIA, INC.

_____
GREG LOUGHNANE
President

Date: _____

CALMAT CO.

Paul Stanford
~~A. FREDERICK GERSTELL~~ EXECUTIVE VICE PRESIDENT
~~President~~

Date: 11-6-95

PICK-YOUR-PART AUTO WRECKING

_____
GLENN C. MCELROY
President

Date: _____ Date: _____

PACIFIC STEEL TREATING
COMPANY, INC.

_____
NIELS BRUUN-ANDERSEN
President

Date: _____

ERIK AND ELSE BRUUN-ANDERSEN
TRUST

_____
NIELS BRUUN-ANDERSEN
Trustee of the Erik and Else
Bruun-Andersen Trust

Date: _____

FLEETWOOD MACHINE PRODUCTS, INC.

_____
WILLIAM COOKE
President

Date: _____

AMENDED COOKE FAMILY TRUST

WILLIAM L. COOKE
Co-Trustee of the Amended Cooke
Cooke Family Trust

Date: _____

JERRY CONROW
Co-Trustee of the Amended
Cooke Family Trust

Date: _____

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Barry Vallone	From Jorge Leon
Co.	Co. SWRCB
Dept.	Phone # (916) 657-2428
Fax # (310) 552-0805	Fax # 653-0428

DRAFT (8/11/95)

[Counsel for Cal-Mat]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Cal-Mat[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Cal-Mat Company (Sun Valley Landfill) site. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Calmat Company to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Nothing in this letter is intended to release any party from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

Post-it® brand fax transmittal memo 7671 | # of pages ▸ 2

To Chuck Mitz	From Jorge Leon
Co. Waste Mgt Inc	Co. SWRCB
Dept.	Phone # 657-2428
Fax # 448-2470	Fax # 653-0428

DRAFT (8/11/95)

[Counsel for Waste Management, Inc.]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Waste Management, Inc.[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Bradley Landfill site, owned by Waste Management, Inc. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Waste Management, Inc. to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Waste Management, Inc. has filed with this Regional Board assurances of financial responsibility to initiate and complete corrective action for releases from the Bradley Landfill in the amount of $1 Million (Insurance Policy No. CPCS92-0006). In addition, Waste Management, Inc. has an additional insurance

policy from National Guaranty Insurance Company in the amount of $11,782,547 for closure and post closure funding. Nothing in this letter is intended to release Waste Management, Inc. from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15, Article 6, involving these funds.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

GIBBS, GIDEN, LOCHER & ACRET
ATTORNEYS AT LAW
ONE CENTURY PLAZA, 34TH FLOOR
2029 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-3039
TELEPHONE (310) 553-3400
FACSIMILE (310) 556-0806

FACSIMILE COVER SHEET

OUR FILE NO. 359.002

DATE: August 18, 1995 **TIME COMPLETED:**
TO: Lynn Walker
c/o Randy Morrison
COMPANY: CROSBY, HEAFEY, ROACH & MAY
FAX NO: (510) 273-8832 **PAGES** (incl. cover sheet): 3
FROM: Barry C. Vaughan

ATTACHED PLEASE FIND:

___ FOR YOUR FILES
X FOR YOUR INFORMATION
___ IN ACCORDANCE WITH YOUR REQUEST
___ PLEASE COMMENT
___ PLEASE TELEPHONE ME
___ PLEASE ADVISE ME HOW TO REPLY

CAUTION: PRIVILEGED AND/OR CONFIDENTIAL COMMUNICATION
THE INFORMATION CONTAINED IN THIS FACSIMILE COVER SHEET AND THE ATTACHMENTS, IF ANY, ARE PRIVILEGED, CONFIDENTIAL AND INTENDED ONLY FOR THE INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR REPRODUCTION OF THIS COMMUNICATION, OR ANY PART HEREOF, IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE IMMEDIATELY NOTIFY GIBBS, GIDEN, LOCHER & ACRET BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO GGLA AT THE ABOVE ADDRESS VIA THE UNITED STATES POSTAL SERVICE.

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THIS DOCUMENT WAS CONFIRMED
(REDUCED SAMPLE ABOVE - SEE DETAILS BELOW)

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TOTAL PAGES SCANNED : 3
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No.	REMOTE STATION	START TIME	DURATION	#PAGES	MODE	RESULTS
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		TOTAL	0:01'02"	3		

NOTE:
No. : OPERATION NUMBER 48 : 4800BPS SELECTED EC : ERROR CORRECT G2 : G2 COMMUNICATION
PD : POLLED BY REMOTE SF : STORE & FORWARD RI : RELAY INITIATE RS : RELAY STATION
MB : SEND TO MAILBOX PG : POLLING A REMOTE MP : MULTI-POLLING RM : RECEIVE TO MEMORY

To Chuck Lily	From George Lem
Co. Waste Mgt Inc	Co. SWRCB
Dept	Phone # 657-2428
Fax # 448-2470	Fax # 653-0428

DRAFT (8/11/95)

[Counsel for Waste Management, Inc.]

RE: North Hollywood Operable Unit

Dear Counsel:

This letter is provided to you as counsel for Waste Management, Inc.[enter full name], which has been identified as a potentially responsible party for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The EPA and DTSC are lead agencies for the regional groundwater issues, while the Regional Board retains site-specific authority pursuant to its permitting responsibility over individual sites.

It is our understanding that your client is entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Ms, Ann Rushton, Counsel for DTSC, has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern, as presented to us by Counsel for DTSC, we have reviewed our files on the Bradley Landfill site, owned by Waste Management, Inc. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board does not plan to require Waste Management, Inc. to undertake the construction or operation of individual groundwater treatment facilities at its site in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Waste Management, Inc. has filed with this Regional Board assurances of financial responsibility to initiate and complete corrective action for releases from the Bradley Landfill in the amount of $1 Million (Insurance Policy No. CPCS92-0006). In addition, Waste Management, Inc. has an additional insurance

policy from National Guaranty Insurance Company in the amount of $11,782,547 for closure and post closure funding. Nothing in this letter is intended to release Waste Management, Inc. from its responsibilities as set forth under existing orders of the Regional Water Quality Control Board, including post-closure Waste Discharge Requirements and other requirements of Title 23, Calif. Code of Regs, Chapter 15, Article 6, involving these funds.

Sincerely,

Robert P. Ghirelli
Executive Officer

cc: Ann Rushton, Atty Gen Ofc, LA
Rep, DTSC
Rep, EPA

WMX TECHNOLOGIES, INC.
GOVERNMENT AFFAIRS -- WEST
915 L Street, Suite 1430
Sacramento, California 95814

Tel: (916) 448-4675
Fax: (916) 448-2470

TELECOPIER TRANSMISSION COVER SHEET

DELIVER TO: Barry Vaughan

Fax Number: 310/552-0805

Office Number: 310/552-3400

MESSAGE: RE: Draft letter

SENT BY: Chuck White

Number of Pages: 3 INCLUDING THIS COVER SHEET

Warning: The document attached is intended only for the use of the individual or entity to which it is addressed. This information may be privileged and confidential. Any dissemination, distribution or copying of this communication by anyone other than the intended recipient is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone so that we can arrange for the return of the original message, without cost to you. Thank you.

If there are any questions regarding this transmission, or if all pages were not received, please contact Rachel (916/448-4675).

DATE 8/14/95

TIME PM

DANIEL E. LUNGREN
Attorney General

State of California
DEPARTMENT OF JUSTICE

300 SOUTH SPRING STREET, SUITE 521
LOS ANGELES, CA 90013
(213) 897-2000

FACSIMILE (213) 897-2808
(213) 897-2608

July 21, 1995

Barry Vaughan, Esq.
Gibbs, Giden, Locher & Acret
2029 Century Park East, Suite 3400
Los Angeles, CA 90067-3020

RE: North Hollywood Operable Unit
Draft Regional Board Letter

Dear Barry:

In accordance with our telephone conversation, I am enclosing a copy of the draft letter which I had submitted to Jorge Leon at the Regional Water Quality Control Board.

It is my understanding that you are acting as the temporary coordinator among the PRP group and will be distributing the draft to the other PRPs as well.

I hope that this draft will be useful in your further discussions with the Regional Board.

Sincerely,

DONALD E. LUNGREN
Attorney General

Ann Rushton

ANN RUSHTON
Deputy Attorney General

cc: Jorge Leon, Esq.
Marie Rongone, Esq.
David Glazer, Esq.

DRAFT

[Counsel for Settling Defendants]

Re: North Hollywood Operable Unit

Dear Counsel,

This letter is provided to you as counsel for your respective clients, [list clients and sites]. These parties have been identified as potentially responsible parties for response costs incurred by the United States Environmental Protection Agency ("EPA") and the California Department of Toxic Substances Control ("DTSC") in connection with a water treatment facility constructed as an interim remedy for the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin.

It is our understanding that your clients are entering into a consent decree with EPA and DTSC in which your clients are contributing money to reimburse EPA and DTSC for costs incurred in connection with the construction and operation of the above-described water treatment facility. It is our further understanding that EPA and DTSC agree that such contributions entitle your clients to a release from liability from any other response costs incurred by EPA and DTSC, and to contribution protection from third parties for any such costs, with respect to matters covered by the consent decree.

Counsel for DTSC has informed us that your clients want to minimize any potential risk of being required to initiate individual groundwater treatment measures at their respective facilities in addition to their financial contribution to the EPA-DTSC treatment facility.

In response to that concern as presented to us by counsel for DTSC, we have reviewed the our files on the North Hollywood Operable Unit. Based on our review of that material, we have concluded that, absent new information or change in circumstances, the Regional Water Quality Control Board will not require your clients to undertake the construction or operation of individual groundwater treatment facilities at their respective sites in addition to their financial contribution to the EPA-DTSC groundwater treatment facility which is the subject of the proposed consent decree.

Nothing in this letter is intended to release any party from its responsibilities as set forth under any existing order of the Regional Water Quality Control Board.

Sincerely,

Appendix M

FAX TRANSMISSION COVER SHEET

IMPORTANT/CONFIDENTIAL: This communication is intended only for the use of the individual or entity to which it is addressed. This message contains information from the State of California, Attorney General's Office which may be privileged, confidential and exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, or the employee, or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited.

DATE: July 21, 1995 NUMBER OF PAGES: (INCLUDING COVER SHEET) 3

TIME:

TO:

NAME: Barry Vaughan, Esq. (310) 552-0805

AGENCY/COMPANY: cc. Jorge Leon (8) 453-0428

FAX NO.: Marie Rongone (415) 744-1041

PHONE NO.: David Glazer (415) 744-6476

FROM:

NAME: ANN RUSHTON, Deputy Attorney General, Environmental Law Section

STATE OF CALIFORNIA
DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL
300 South Spring Street, Suite 500N
Los Angeles, California 90013

PHONE NO.: (213) 897-2608 CALNET: (8) 647-2608

FAX NO.: (213) 897-2802 (or if busy, (213) 897-2804)

COMMENTS:

PLEASE DELIVER AS SOON AS POSSIBLE!

IF YOU NEED ASSISTANCE REGARDING THIS TRANSMITTAL, CALL THE SENDER

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
Conrock Company	Excess Umbrella Liability Policies	Various	Various	1977	1980
CalMat Company	A/L & G/L Renewal - Umbrella	None given	Zurich Insurance Company	2000	2001
CalMat Company	Historical Insurance Policy Lists	Various	Various	6/16/1961	7/1/1993
Conrock Company	Excess Liability Policies	Various	Various	12/31/1971	12/31/1974
Conrock Company	Primary	LAP 4832700	Fidelity & Casualty	12/31/1971	12/31/1974
Conrock Company	Umbrella	RDU 8888339	Continental Casualty Company	2/14/1972	12/31/1974
Conrock Company	Excess Liability	79221835	Federal Insurance Company	1/23/1974	12/31/1974
Conrock Company	Excess Liability	33 XN 36 WCA	The Aetna Casualty & Surety Company	1/23/1974	12/31/1974
Conrock Company	Comprehensive Liability	L 1472459	The Fidelity & Casualty Company of New York	12/31/1974	12/31/1977
Conrock company	Tenant - L A By Products Company	CAG 266707	Compass Insurance Company	11/17/1976	12/1/1977
Conrock Company	Comprehensive Liability	L 3397697	The Fidelity & Casualty Company of New York	12/31/1977	12/31/1980
Conrock Company	Umbrella Liability Policy	63 003 992	Northbrook Insurance Company	12/31/1977	12/31/1978
Conrock Company	Umbrella Liability Policy	63 005 229	Northbrook Insurance Company	12/31/1978	12/31/1979
Conrock Company	Excess Umbrella Liability Policy	CNZ 14-16-19	The Central National Ins Company of Omaha	6/28/1979	12/31/1980
Conrock Company	Commercial Umbrella Liability Policy	UMB 006 49 65 48	Transcontinental Insurance Company	12/31/1979	12/31/1980
Conrock Company	Comprehensive Liability	CBP 909748	Continental Insurance Company	12/31/1980	12/31/1983
Conrock Company	Excess Umbrella Liability Policy	CNZ 14-20-97	The Central National Ins Company of Omaha	12/31/1980	12/31/1981
Conrock Company	Excess Umbrella Liability Policy	(81)7922-19-50	Federal Insurance Company	12/31/1980	12/31/1981
Conrock Company	Excess Umbrella Liability Policy	M 870545	Mission Insurance Company	12/31/1980	12/31/1981
Conrock Company	Excess Umbrella Liability Policy	UMB 00 844 84 81	Transcontinental Insurance Company	12/31/1980	12/31/1981
Conrock Company	Excess Liability Policy	AUX5 20 04 57	Allianz Underwriters Inc	9/23/1981	9/23/1982
Conrock Company	Special Coverage Policy	1 CM 0 05 07	Great American Surplus Lines Insurance Co	9/23/1981	9/23/1982
Conrock Company	Excess Umbrella Liability Policy	XC-00-10-88	American Centennial Insurance Company	12/31/1981	12/31/1982
Conrock Company	Excess Umbrella Liability Policy	(82)7922-19-50	Federal Insurance Company	12/31/1981	12/31/1982
Conrock Company	Excess Umbrella Liability Policy	MN 002436	Mission National Insurance Company	12/31/1981	12/31/1982
Conrock Company	Excess Umbrella Liability Policy	CNZ00-61-11	The Central National Ins Company of Omaha	12/31/1981	12/31/1982
Conrock Company	Special Coverage Policy	2 CM 0 11 05	Great American Surplus Lines Insurance Co	9/23/1982	9/23/1983
Conrock Company	Excess Umbrella Liability Policies	Various	Various	12/31/1982	12/31/1983
Conrock Company	Excess Umbrella Liability Policy	XC-00-27-01	American Centennial Insurance Company	12/31/1982	12/31/1983
Conrock Company	Excess Umbrella Liability Policy	CNZ00-66-82	The Central National Ins Company of Omaha	12/31/1982	12/31/1983
Conrock Company	Excess Umbrella Liability Policy	(83)7922-19-50	Federal Insurance Company	12/31/1982	12/31/1983
Conrock Company	Excess Umbrella Liability Policy	MN 019400	Mission National Insurance Company	12/31/1982	12/31/1983
Conrock Company	Special Coverage Policy	3 CM 0 17 21	Great American Surplus Lines Insurance Co	9/23/1983	9/23/1984
CalMat Company/Conrock Company	Comprehensive Liability	SRL 3 63 53 14	The Continental Insurance Company	12/31/1983	7/1/1985
Conrock Company	Excess Liability Policies	Various	Various	12/31/1983	12/31/1984
Conrock Company	First Umbrella	954997	First State Insurance Company	12/31/1983	12/31/1984
Conrock Company	Fourth Excess	HXL 1 57 65 12	Home Insurance Company	12/31/1983	12/31/1984
Conrock Company	Fourth Excess	XLX 162 03 49	Firemans Fund Insurance Company	12/31/1983	7/1/1985
Conrock Company	Fourth Excess	SR 30370	Highlands Insurance Company	12/31/1983	12/31/1984

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
Conrock Company	Fourth Excess	TXS 102742	Twin City Fire Insurance Company	12/31/1983	12/31/1984
Conrock Company	Second Excess	(84)7922-19-50	Federal Insurance Company	12/31/1983	12/31/1984
Conrock Company	Second Excess	XL 208419	Intregrity Insurance Company	12/31/1983	12/31/1984
Conrock Company	Third Excess	MN 031990	Mission National Insurance Company	12/31/1983	12/31/1984
Conrock Company	Second Excess	HL 01689	Hudson Insurance Company	12/31/1983	12/31/1984
CalMat Company	General Indemnity Agreement	None given	St Paul Fire & Marine Insurance Company	6/27/1984	None given
Conrock Company	Special Coverage Policy	4 CM 0 30 22	Great American Surplus Lines Insurance Co	9/23/1984	11/7/1984
Conrock Company	Excess Liability Policies	Various	Various	12/31/1984	7/1/1985
Conrock Company	Fifth Excess	HXL 1 64 34 33	Home Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fifth Excess	SR 30493	Highlands Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fifth Excess	SRX 2 10 13 59	Continental Insurance Company	12/31/1984	7/1/1985
Conrock Company	First Umbrella	UL 000258	First State Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	XCP 156783	Insurance Company of North America	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	MN 044780	Mission National Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	HXL-1 64 34 32	Home Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	XCC 01 27 18	Pacific Employers Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	72-284-84-C	Zurich International Ltd	12/31/1984	7/1/1985
Conrock Company	Second Excess	XL 210057	Intregrity Insurance Company	12/31/1984	7/1/1985
Conrock Company	Second Excess	72,283-84-C	Zurich International Ltd	12/31/1984	7/1/1985
Conrock Company	Third Excess	(85)7922-19-50	Federal Insurance Company	12/31/1984	7/1/1985
Conrock Company	Third Excess	522 055003 5	International Insurance Company	12/31/1984	7/1/1985
Conrock Company	Fourth Excess	(85)7928-95-35	Federal Insurance Company	12/31/1984	7/1/1985
CalMat Company	Comprehensive Liability	SRL 3 34 46 16	The Continental Insurance Company	7/1/1985	7/1/1986
CalMat Company	Excess Liability Policies	Various	Various	7/1/1985	7/1/1986
CalMat Company	Fifth Excess	XCPG 00044304	Insurance Company of North America	7/1/1985	7/1/1986
CalMat Company	Fifth Excess	XCC 01 27 74	Pacific Employers Insurance Company	7/1/1985	7/1/1986
CalMat Company	First Umbrella	56 HUSG 1575	Hartford Casualty	7/1/1985	7/1/1986
CalMat Company	Fourth Excess	XCC 01 27 62	Pacific Employers Insurance Company	7/1/1985	7/1/1986
CalMat Company	Fourth Excess	XCPG 00044301	Insurance Company of North America	7/1/1985	7/1/1986
CalMat Company	Fourth Excess	EG 000152	New England Insurance Company	7/1/1985	7/1/1986
CalMat Company	Second Excess	6285-6188	Granite State Insurance Company	7/1/1985	7/1/1986
CalMat Company	Second Excess	960-9693	National Union Fire Insurance Company	7/1/1985	7/1/1986
CalMat Company	Sixth Excess	XLX 173-56-91	Fireman's Fund Insurance Company	7/1/1985	7/1/1986
CalMat Company	Sixth Excess	(86) 7928-95-35	Federal Insurance Company	7/1/1985	7/1/1986
CalMat Company	Sixth Excess	SR 30624	Highlands Insurance Company	7/1/1985	7/1/1986
CalMat Company	Third Excess	PY 289285	Lloyds of London	7/1/1985	7/1/1986
CalMat Company	Third Excess	JE 895-0748	Industrial Insurance Co of Hawaii	7/1/1985	7/1/1986
CalMat Company	Third Excess	SRX 2 10 13 65	Continental Insurance Company	7/1/1985	7/1/1986
CalMat Company	Third Excess	EG 000151	New England Insurance Company	7/1/1985	7/1/1986

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
CalMat Company	Comprehensive Liability	CCP 001-70-41-07	Transportation Insurance Company	7/1/1986	7/1/1987
CalMat Company	Comprehensive Liability Renewal	None given	C N A Insurance Companies	7/1/1986	7/1/1987
CalMat Company	Excess Liability Correspondence	Various	Various	7/1/1986	7/1/1987
CalMat Company	Excess Liability Policies	Various	Various	7/1/1986	7/1/1987
CalMat Company	Fifth Excess	PY 085586	Lloyds of London	7/1/1986	7/1/1987
CalMat Company	Fifth Excess	PMMO 74101	Pacific Mutual Marine Office Inc	7/1/1986	7/1/1987
CalMat Company	Fifth Excess - Included in Fourth Excess	CLM 3069917	National Union Fire Insurance Company	7/1/1986	7/1/1987
CalMat Company	First Umbrella	RDX 001-70-41-34	Continental Insurance Company	7/1/1986	7/1/1987
CalMat Company	Fourth Excess	PY 077886	Lloyds of London	7/1/1986	7/1/1987
CalMat Company	Fourth Excess	CLM 3069917	National Union Fire Insurance Company	7/1/1986	7/1/1987
CalMat Company	Fourth Excess	4286-7604	Insurance Company of Pennsylvania	7/1/1986	7/1/1987
CalMat Company	Second Excess	72 HUSG 1781	Hartford Casualty	7/1/1986	7/1/1987
CalMat Company	Seventh Excess	NN 500002786	American Excess Insurance Association	7/1/1986	7/1/1987
CalMat Company	Sixth Excess	PY 077686	Lloyds of London	7/1/1986	7/1/1987
CalMat Company	Sixth Excess	4286-7605	Insurance Company of Pennsylvania	7/1/1986	7/1/1987
CalMat Company	Sixth Excess - Included in Fourth Excess	5523042	Lexington Insurance Company	7/1/1986	7/1/1987
CalMat Company	Third Excess	4286-7158	Insurance Company of Pennsylvania	7/1/1986	7/1/1987
CalMat Company	Third Excess	JE 895-1900	Industrial Insurance Co of Hawaii	7/1/1986	7/1/1987
CalMat Company	Fourth Excess	5523042	Lexington Insurance Company	7/1/1986	7/1/1987
CalMat Company	Comprehensive Liability	CCP 001-59-88-85	Transportation Insurance Company	7/1/1987	7/1/1988
CalMat Company	Comprehensive Liability Renewal	None given	Transportation Insurance Company	7/1/1987	7/1/1988
CalMat Company	Excess Liability Policies	Various	Various	7/1/1987	7/1/1988
CalMat Company	Fifth Excess	(88) 7908-89-16	Pacific Indemnity Company	7/1/1987	7/1/1988
CalMat Company	Fifth Excess	XXK 1904312	Fireman's Fund Insurance Company	7/1/1987	7/1/1988
CalMat Company	First Excess	72 HU SG6643	Hartford Casualty	7/1/1987	7/1/1988
CalMat Company	Fourth Excess	XCPG 05697566	Insurance Company of North America	7/1/1987	7/1/1988
CalMat Company	Fourth Excess	(88) 7908-89-15	Pacific Indemnity Company	7/1/1987	7/1/1988
CalMat Company	Fourth Excess	EL 000982	First State Insurance Company	7/1/1987	7/1/1988
CalMat Company	Second Excess	JE 899-5110	Industrial Insurance Co of Hawaii	7/1/1987	7/1/1988
CalMat Company	Third Excess	426-30-10	National Union Fire Insurance Company	7/1/1987	7/1/1988
CalMat Company	Third Excess	4287-1146	Insurance Company of Pennsylvania	7/1/1987	7/1/1988
CalMat Company	Third Excess	552-9948	Lexington Insurance Company	7/1/1987	7/1/1988
CalMat Compan	Fifth Excess	XXK 190-87-38	Fireman's Fund Insurance Company	7/1/1988	7/1/1989
CalMat Company	Comprehensive Liability	GL 6001-60-42-53	Transportation Insurance Company	7/1/1988	7/1/1989
CalMat Company	Comprehensvie Liability Renewal	None given	Transportation Insurance Company	7/1/1988	7/1/1989
CalMat Company	Excess Liability Policies	Various	Various	7/1/1988	7/1/1989
CalMat Company	Fifth Excess	(89) 7908-89-16	Pacific Insurance Company	7/1/1988	7/1/1989
CalMat Company	First Excess	72 HU SG5807	Hartford Casualty	7/1/1988	7/1/1989
CalMat Company	Fourth Excess	(89) 7908-89-15	Pacific Insurance Company	7/1/1988	7/1/1989

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
CalMat Company	Second Excess	426-65-39	National Union Fire Insurance Company	7/1/1988	7/1/1989
CalMat Company	Second Excess	4288-1747	Insurance Company of Pennsylvania	7/1/1988	7/1/1989
CalMat Company	Stop Gap Liability	GL 9001-60-44-67	Transportation Insurance Company	7/1/1988	7/1/1989
CalMat Company	Third Excess	XCP G1077773-2	Insurance Company of North America	7/1/1988	7/1/1989
CalMat Company	Third Excess	EL 001124	First State Insurance Company	7/1/1988	7/1/1989
CalMat Company	Second Excess	556-5833	Lexington Insurance Company	7/1/1988	7/1/1989
CalMat Company	Comprehensive Liab Renewal/Bid Proposals	None given	M & M/J & H (Brokers)	7/1/1989	None given
CalMat Company	Comprehensive Liability	GL 9007-41-14-53	Transportation Insurance Company	7/1/1989	7/1/1990
CalMat Company	Comprehensive Liability Renewal/Corr	None given	Transportation Insurance Company	7/1/1989	7/1/1990
CalMat Company	Excess Liability Policies	Various	Various	7/1/1989	7/1/1990
CalMat Company	Fifth Excess	XXK 190-69-93	Fireman's Fund Insurance Company	7/1/1989	7/1/1990
CalMat Company	First Umbrella	JU 910-6917	Industrial Indemnity Company	7/1/1989	7/1/1990
CalMat Company	Fourth Excess	(90) 7908-89-15	Federal Insurance Company	7/1/1989	7/1/1990
CalMat Company	Second Excess	426-66-10	National Union Fire Insurance Company	7/1/1989	7/1/1990
CalMat Company	Stop Gap Liability	GL 5007-41-14-55	Transportation Insurance Company	7/1/1989	7/1/1990
CalMat Company	Third Excess	XCPG 1077835-9	Inxurance Company of North America	7/1/1989	7/1/1990
CalMat Company	Third Excess	FL 0001015	First State Insurance Company	7/1/1989	7/1/1990
CalMat Company	Comprehensive Liability	GL 0-07413310	Transportation Insurance Company	7/1/1990	7/1/1991
CalMat Company	Comprehensive Liability Renewal	None given	Transportation Insurance Company	7/1/1990	None given
CalMat Company	Excess Liability Policies	Various	Various	7/1/1990	7/1/1991
CalMat Company	Fifth Excess	(91) 7908-89-15	Federal Insurance Company	7/1/1990	7/1/1991
CalMat Company	First Umbrella	JU 910-7973	Industrial Indemnity Company	7/1/1990	7/1/1991
CalMat Company	Fourth Excess	83XN238SCA	Aetna Casualty and Surety Company	7/1/1990	7/1/1991
CalMat Company	Second Excess	426-66-79	National Union Fire Insurance Company	7/1/1990	7/1/1991
CalMat Company	Sixth Excess	XXK 211-15-99	Fireman's Fund Insurance Company	7/1/1990	7/1/1991
CalMat Company	Sixth Excess	(91) 90 7908-90-30	Federal Insurance Company	7/1/1990	7/1/1991
CalMat Company	Stop Gap Liability	GL 8 07413311	Transportation Insurance Company	7/1/1990	7/1/1991
CalMat Company	Third Excess	NUA 149742800	Reliance Insurance Company	7/1/1990	7/1/1991
CalMat Company	Fourth Excess	FL 0001747	First State Insurance Company	7/1/1990	7/1/1991
CalMat Company	Comprehensive Liab Renewal/Bid Proposals	None given	None Given	7/1/1991	None given
CalMat Company	Comprehensive Liability	GL 7-07415956	Continental Casualty Company	7/1/1991	7/1/1992
CalMat Company	Excess Liability Policies	Various	Various	7/1/1991	7/1/1992
CalMat Company	Fifth Excess	(92) 7908-89-15	Federal Insurance Company	7/1/1991	7/1/1992
CalMat Company	First Umbrella	JU 910-9447	Industrial Indemnity Company	7/1/1991	7/1/1992
CalMat Company	Fourth Excess	FL 0002348	First State Insurance Company	7/1/1991	7/1/1992
CalMat Company	Fourth Excess	(92) 7908-90-30	Federal Insurance Company	7/1/1991	7/1/1992
CalMat Company	Liability Insurance Renewal	None given	None Given	7/1/1991	7/1/1992
CalMat Company	Second Excess	770-20-44	American International Surplus Lines	7/1/1991	7/1/1992
CalMat Company	Sixth Excess	XXK 216-54-78	Fireman's Fund Insurance Company	7/1/1991	7/1/1992

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
CalMat Company	Third Excess	NEA 1497428	Reliance Insurance Company	7/1/1991	7/1/1992
CalMat Company	Comprehensive Liability	GL 4-07418155	Continental Casualty Company	7/1/1992	7/1/1993
CalMat Company	Excess Liability Policies	Various	Various	7/1/1992	7/1/1993
CalMat Company	Fifth Excess	XXK-000-3162-6641	Fireman's Fund Insurance Company	7/1/1992	7/1/1993
CalMat Company	First Umbrella	JU 912-3092	Industrial Indemnity Company	7/1/1992	7/1/1993
CalMat Company	Fourth Excess	(93) 7908-89-15	Federal Insurance Company	7/1/1992	7/1/1993
CalMat Company	Second Excess	770-23-76	American Surplus Lines	7/1/1992	7/1/1993
CalMat Company	Third Excess	(93) 7908-90-30	Federal Insurance Company	7/1/1992	7/1/1993
CalMat Company	Third Excess	FL 0003017	First State Insurance Company	7/1/1992	7/1/1993
CalMat Company	Comprehensive Liability	NH 960-7996	Industrial Indemnity Company	7/1/1993	7/1/1994
CalMat Company	Excess Liability Policies	Various	Various	7/1/1993	7/1/1994
CalMat Company	Fifth Excess	72 XS SL3001	Hartford Casualty	7/1/1993	7/1/1994
CalMat Company	First Umbrella	BE 308-87-97	National Union Fire Insurance Company	7/1/1993	7/1/1994
CalMat Company	Fourth Excess	XXK-000-3187-2633	Fireman's Fund Insurance Company	7/1/1993	7/1/1994
CalMat Company	Third Excess	(94) 7908-49-65	Federal Insurance Company	7/1/1993	7/1/1994
CalMat Company	Second Excess	HXL-F86-65-30	Home Insurance Companies	7/1/1993	7/1/1994
CalMat Company/Industrial Asphalt	Contractors Pollution Liability	PCC 79-29-730-00	Steadfast Insurance Company	9/15/1993	9/15/1994
CalMat Company	Comprehensive Liability Underwriting Data	None given	None Given	7/1/1994	7/1/1995
CalMat Company	Excess Liability - Fifth Excess	72 XS SL3001	Hartford Casualty	7/1/1994	7/1/1995
CalMat Company	Excess Liability - First Umbrella	BE 308-88-52	National Union Fire Insurance Company	7/1/1994	7/1/1995
CalMat Company	Excess Liability - Fourth Excess	XXK-000-7372-6663	Firemans Fund Insurance Company	7/1/1994	7/1/1995
CalMat Company	Excess Liability - Second Excess	HXL-F86-66-64	Home Insurance Companies	7/1/1994	7/1/1995
CalMat Company	Excess Liability - Third Excess	(95) 7908-49-65	Federal Insurance Company	7/1/1994	7/1/1995
CalMat Company	Excess Liability Policies	Various	Various	7/1/1994	7/1/1995
CalMat Company	General Liability - Commercial G/L & A/L	547-000-105-5	U S Fire Insurance Company	7/1/1994	7/1/1995
CalMat Company	Excess Liability - Second Excess	HXL-U022574	Zurich Insurance Company	7/1/1994	7/1/1995
CalMat Company	Comprehensive Liability Renewal	None given	None Given	7/1/1995	7/1/1996
CalMat Company	Excess Liability - Fifth Excess	72 XS SL3001	Hartford Casualty	7/1/1995	7/1/1996
CalMat Company	Excess Liability - First Umbrella	BE 309-63-50	National Union Fire Insurance Company	7/1/1995	7/1/1996
CalMat Company	Excess Liability - Fourth Excess	XXK-000-8248-3223	Firemans Fund Insurance Company	7/1/1995	7/1/1996
CalMat Company	Excess Liability - Third Excess	(96) 7908-49-65	Federal Insurance Company	7/1/1995	7/1/1996
CalMat Company	Excess Liability Policies	Various	Various	7/1/1995	7/1/1996
CalMat Company	General Liability - Commercial G/L & A/L	545-000-120-1	U S Fire Insurance Company	7/1/1995	7/1/1996
CalMat Company	Owners & Contractors Liability	545-000-121-9	U S Fire Insurance Company	7/1/1995	7/1/1996
CalMat Company	Excess Liability - Second Excess	AEO 8355547	Zurich Insurance Company	7/1/1995	7/1/1996
CalMat Company	Comprehensive Liability Renewal	None given	None Given	7/1/1996	None given
CalMat Company	Excess Liability - First Umbrella	BE 818-60-73	American International Specialty	7/1/1996	7/1/1997
CalMat Company	Excess Liability - Fourth Excess	XXK 00074121583	Firemans Fund Insurance Company	7/1/1996	7/1/1997
CalMat Company	Excess Liability - Third Excess	7908-49-65-(97)	Federal Insurance Company	7/1/1996	7/1/1997

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
CalMat Company	Excess Liability Policies	Various	Various	7/1/1996	7/1/1997
CalMat Company	General Liability - Commercial	GLO 8384053-00	Zurich-American Insurance Group	7/1/1996	7/1/1997
CalMat Company	Excess Liability - Second Excess	XLX 926-24-47	TIG Insurance Company	7/1/1996	7/1/1997
CalMat Company	Excess Liability - Second Excess	XLX 926-24-47	TIG Insurance Company	7/1/1997	7/1/1998
CalMat Company	Excess Liability - Third Excess	(98) 7908-49-65	Federal Insurance Company	7/1/1997	7/1/1998
CalMat Company	Excess Liability Policies	Various	Various	7/1/1997	7/1/1998
CalMat Company	General Liability Insurance	GLO 8384053-01	Zurich-American Insurance Group	7/1/1997	7/1/1998
CalMat Company	Liability Insurance Renewal	None given	None Given	7/1/1997	7/1/1998
CalMat Company	Excess Liability - First Umbrella	BE 819 40 92	American International Specialty	7/1/1997	7/1/1998
CalMat Company	Comprehensive Liability Renewal	None given	None Given	7/1/1998	None given
CalMat Company	Excess Liability - Third Excess	7908-49-65	Federal Insurance Company	7/1/1998	7/1/2001
CalMat Company	Excess Liability - Second Excess	XLX 926 29 21	TIG Insurance Company	7/1/1998	7/1/2001
CalMat Company	Excess Liability Insurance	BE 819-85-73	American International Specialty	7/1/1998	Canc 7/1/1999
CalMat Company	Excess Liability Insurance	XLX 926 31 78	TIG Insurance Company	7/1/1998	Canc 7/1/1999
CalMat Company	Excess Liability Insurance	7908-49-65	Federal Insurance Company	7/1/1998	Canc 7/1/1999
CalMat Company	Excess Liability Policies	Various	Various	7/1/1998	7/1/2001
CalMat Company	General Liability Insurance	GLO 8384053-02	Zurich-American Insurance Group	7/1/1998	7/1/1999
CalMat Company	Excess Liability - First Umbrella	BE 818-40-62	American International Specialty	7/1/1998	7/1/2001
CalMat Company	Property Insurance - All Risk	8522324	Lexington Insurance Company	9/1/1998	9/1/1999
CalMat Company	Property Insurance - Excess EQ	ZG 00009639	Pacific Insurance Company	9/1/1998	9/1/1999
CalMat Company	Property Insurance - Excess EQ	CPP 3992155	Agricultural Insurance Company	9/1/1998	9/1/1999
CalMat Company	Property Insurance - Excess EQ	IML 457647	Westchester Fire Insurance Company	9/1/1998	9/1/1999
CalMat Company	General Liability Insurance	GLO 8384053-03	Zurich-American Insurance Group	7/1/1999	7/1/2000
CalMat Company	Liability Insurance Renewal	None given	None Given	7/1/1999	7/1/2000
CalMat Company	Umbrella Policy	BE 701-30-19	American International Specialty Lines Ins Co	7/1/1999	7/1/2000
CalMat Company	Property Insurance - Excess EQ	IXL 492466	Westchester Fire Insurance Company	9/1/1999	9/1/2000
CalMat Company	Property Insurance All Risk	8526142	Lexington Insurance Company	9/1/1999	9/1/2000
CalMat Company	Property Insurance - Excess EQ	ZG 0014707	Pacific Insurance Company	9/1/1999	9/1/2000
CalMat Company	General Liability Insurance	GLO 8384053-04	Zurich-American Insurance Group	7/1/2000	7/1/2001
CalMat Company	Liability Insurance Renewal	None given	None Given	7/1/2000	7/1/2001
CalMat Company	Umbrella Policy	BE 739-85-09	AIG Excess Casualty	7/1/2000	7/25/2001
CalMat Company	General Liability Insurance	GLO 8384053-05	Zurich-American Insurance Group	7/1/2001	7/1/2002
CalMat Company	Liability Insurance Renewal	None given	None Given	7/1/2001	7/1/2002
CalMat Company	Umbrella Policy	BE 741-42-06	AIG Excess Casualty	7/25/2001	7/1/2002
CalMat Company	General Liability Insurance	GLO 8384053-06	Zurich-American Insurance Group	7/1/2002	7/1/2003
CalMat Company	General Liability Insurance	GLO 8384053-07	Zurich American Insurance Group	7/1/2003	7/1/2004
Vulcan Materials Company & Subsidiaries	General Liability Insurance	MWZZ50312	Old Republic Insurance Company	7/1/2004	1/1/2005
Vulcan Materials Company & Subsidiaries	General Liability Insurance	MWZZ50353	Old Republic Insurance Company	1/1/2005	1/1/2006
Vulcan Materials Company & Subsidiaries	General Liability Insurance	MWZZ 50372	Old Republic Insurance Company	1/1/2006	1/1/2007

INSURANCE POLICIES - CALMAT & ASSOCIATED COMPANIES

Insured (Company Name)	Policy Type	Policy Number	Insurance Company	Policy Effective Date	Policy Expiration Date
CalMat Company	Environmental Iss - Pre Acquisition (2 Files)	None given	Unknown	None given	None given
CalMat Company	Summary of Insurance	None given	None Given	None given	None given
Conrock Company	Expired Policies	None given	None Given	None given	None given

Box #	Legend
1	*Comprehensive G/L 202400052308 thru 202502052308
1	**Business Comprehensive Policy PYAL40524 thru Inland Marine PQSE99373-S
1	***G/L Policy SLP6714265-00 thru Fire & Theft 520426
1	****G/L Policy ICP 02-19-77 thru Fire & Theft 507093
2	*W/C & Employers Liability Policies WCM19028-B & WCP14306-C
2	**Comprehensive G/L-A/L L-1472459 thru Commercial Umbrella Liability UMB 00 844 8481
3	*Label - Bodily Injury & Property Damage CLE19 9117 003 thru Second Year Retrospective Return Premium CLE19 9117 003
3	**Label - Bodily Injury & Property Damage thru Auto Printo-out dated 4/30/1970
3	***Label - Bodily Injury & Property Damage CLEA 9117 019 thru Fourth Adjustment CLEA 9117 019
3	****Label - Bodily Injury & Property Damage CA9117-027 thru Miscellaneous Correspondence CA 9117-027
4	*Broker of Record Authorization 8103-63-75-E thru 8114-31-55-C
4	**Liability Insurance Refunds - Chubb & Sons Broker and Bond Refund 400JD-2465
4	***Fax from A&A to Crum Forster 545-000-120-1 and 141-000-116-5
5	*Label - Filling thru W/C Experience Rating
5	**Label - Excess Liability Insurance thru Third Excess
5	***Label - Property Insurance thru All Property Insurance Binders
5	****Insurance Refund Memo thru Performance Bond B1830517
6	*Lael - Excess Umbrella Liability Insurnace thru Umbrella Policy 105004
6	**Label - Antique Auto Insurance thru Special Floater MSF-122-00-05
7	*W/C & Employers Liability Policies - GTC0914023 & GTC0914024
7	**Memo dated 5-19-77 thru Various Print-outs, etc
7	***W/C & Employers Liability Policies EA-8117-021 thru Blank Employers First Report of Injury
7	****W/C Endorsement Policy WCP11057-C & W/C & Employers Liability Policy WCP11432-A
7	*****Certificate of Consent thru Self Insurers Bond
7	******Letter & Premium Invoice WCP11057 thru Audit Report
7	*******Miscellaneous Information C-8067 thru Letter to Fred S James & Company
9	*Property Ins Policy MLP9107655 thru Third Excess Earthquake ZG0003630
9	**All Risk Property MLP8363188-01 thru NSM96279
9	***Property Ins Policies MLP8363188-00 thru IM22794
9	****Excess D&O Policy HI235988 thru D&O Liability information from Aetna
9	*****D&O Liability Policies 4360278 thru DFX0009187
9	******D&O Liability Policies 4375454 thru DFX0009187

Box #	Legend
9	*******Excess W/C Policies 4152649 thru 4156041
10	*Property Insurance Policies PSP149018 thru NSM97304
10	**D&O Policies 095LB10039116BCA thru GAS369550-D
10	***D&O Policies 4833865 thru 81381130-A
10	****Excess D&O Policies SEO5566681 & 3523596
10	*****D&O Policies 4452530 thru 81381130-A
10	******D&O Policies 4431994 thru 81381130
10	*******D&O Policies 4412130 thru 136341193
10	********D&O Policies 4493374 thru 136341192
11	*Label: Transfer File D-12458 -- Contents: List of A/L & G/L Policies thru Second Excess Policy - Second Year Premiums
11	**Label: Bodily Injury & Property Damage File -- Contents: 2nd Year Retrospective Return Premium thru 3rd Year Audit Adjustment
11	***Liability Insurance Policies SC009806 & SC009807
11	****Label: Arizona Sand & Rock Company - Various Policies -- Contents: W/C Policy GTC914024 thru Inland Marine Policy M909560
12	*Cover Letter dated 5-22-90 thru A/L Conrock Employess Fleet
12	**Comprehensive G/L Policy SRL3635314 & GL Extension of Policy SRL3635314
12	***A/L Policy SRB3350473 thru Excess Liability SRX2101365
12	****A/L Policy LBA2838796 thru Policies LBA2838796/001-069
12	*****W/C 6 25 92 38 Daily Report/Policy
12	******A/L Conrock Employee Fleet thru Policies LBA2715972/001-071
12	*******A/L Coverages LBA2716871 thru Policies LBA2716871/001-140
12	********A/L Conrock Employee Fleet LBA2715972 thru Business Auto Policies LBA27115972/001-070

Appendix N

FIRST QUARTER 2005
QUARTERLY AIR QUALITY
MONITORING REPORT
for the
HEWITT PIT LANDFILL

January-March 2005

Facility I.D.: 3530; Sector: PB
Application #343861
7245 Laurel Canyon Boulevard
North Hollywood, CA 91605-3709

Submitted to

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive
Diamond Bar, California 91765

Prepared by

GC ENVIRONMENTAL, INC.
1230 North Jefferson Street, Suite J
Anaheim, California 92807

On behalf of

CALMAT PROPERTIES
3200 San Fernando Road
Los Angeles, California 90065

Project Number 1003-1
April 2005

gec:1003-1/docs/05-04 1st qtr 2005 monitoring doc
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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
FIRST QUARTER 2005 QUARTERLY MONITORING REPORT
FOR THE
HEWITT PIT LANDFILL

Facility I.D.: 3530; Sector: PB
Application #343861
7245 Laurel Canyon Boulevard
North Hollywood, CA 91605-3709

Prepared for:
CALMAT PROPERTIES
3200 San Fernando Road
Los Angeles, California 90065

Project 1003-1

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1.0 INTRODUCTION

This First Quarter Air Quality Monitoring Report has been prepared for the Hewitt Pit Landfill located in North Hollywood, California in accordance with the Rule 1150.1 Compliance Plan approved by South Coast Air Quality Management District (SCAQMD) on December 17, 1999.

No perimeter gas probes had methane detections for the quarter in any of the testing or monitoring performed. Therefore, all probes were in compliance under Rule 1150.1.

The conditions of the plan and the monitoring results are summarized below. **Figure 1** shows a layout of the landfill with the compliance probe locations. **Table 1** shows the cross-reference table reconciling the stored identification number of the gas monitoring instrument with the monitoring probe number at the Site. Probe monitoring data is included in this report as **Attachment 1**.

SUMMARY OF REQUIRED MONITORING, SCHEDULE AND RESULTS

Required Monitoring	Schedule	Results
TOCs in subsurface refuse boundary sampling probes (probes) to be less than 5%.	Monthly (minimum)	There was no TOC exceedance measured during this quarter. Probe monitoring data is attached to this report as **Attachment 1** and performed weekly for most of this quarter.
TACs in probes.	Annually 2nd Quarterly Report	Not required for this report.
Integrated surface sampling (ISS) to be less than 50 ppmv as TOCs.	Annually 2nd Quarterly Report	Not required for this report.
Instantaneous surface monitoring (ISM) to be less than 500 ppmv as TOCs.	Annually 2nd Quarterly Report	Not required for this report.
TOCs and TACs in the main gas collection header.	Annually 3rd Quarterly Report	Not required for this report.
Flare source test and 98% destruction of NMOCs.	Annually 3rd Quarterly Report	Not required for this report.

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FIGURE 1

PROBE LOCATIONS

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Map (Fig #1)

TABLE 1

PROBE CROSS-REFERENCE

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HEWITT PIT LANDFILL

Probe I.D. Cross Reference List

Probe ID# - Datafield	Probe Data Alt. Name	Site Map Probe ID#	Probe ID# - Datafield	Probe Data Alt. Name	Site Map Probe ID#
HWPT001	01M	1	HWPT0043	43M	7B'
HWPT002	02M	1A	HWPT0044	44M	7C'
HWPT003	03M	2	HWPT0045	45M	18B
HWPT004	04M	2A	HWPT0046	46M	8B
HWPT005	05M	3B	HWPT0047	47M	8C'
HWPT006	06M	4	HWPT0048	48M	19
HWPT007	07M	4A	HWPT0049	49M	20
HWPT008	08M	5	HWPT0050	50M	20A
HWPT009	09M	5A	HWPT0051	51M	22
HWPT0010	10M	6B	HWPT0052	52M	22A
HWPT0011	11M	6C	HWPT0053	53M	23
HWPT0012	12M	6D	HWPT0054	54M	24
HWPT0013	13M	7	HWPT0055	55M	24A
HWPT0014	14M	7A	HWPT0056	56M	25
HWPT0015	15M	8A	HWPT0057	57M	25A
HWPT0016	16M	9	HWPT0058	58M	26
HWPT0017	17M	10	HWPT0059	59M	26A
HWPT0018	18M	10A	HWPT0060	60M	26B
HWPT0019	19M	11B	HWPT0061	61M	27
HWPT0020	20M	12B	HWPT0062	62M	27A
HWPT0021	21M	13B	HWPT0063	63M	28
HWPT0022	22M	13D	HWPT0064	64M	30A
HWPT0023	23M	13C	HWPT0065	65M	31
HWPT0024	24M	1B'	HWPT0066	66M	31A
HWPT0025	25M	1C'	HWPT0067	67M	32
HWPT0026	26M	13X	HWPT0068	68M	32A
HWPT0027	27M	14B	HWPT0069	69M	33
HWPT0028	28M	14C	HWPT0070	70M	34
HWPT0029	29M	2B'	HWPT0071	71M	35
HWPT0030	30M	2C'	HWPT0072	72M	36B
HWPT0031	31M	15A	HWPT0073	73M	37
HWPT0032	32M	3B'	HWPT0074	74M	38
HWPT0033	33M	3C'	HWPT0075	75M	39
HWPT0034	34M	4B'	HWPT0076	76M	40
HWPT0035	35M	4C'	HWPT0077	77M	41
HWPT0036	36M	16A	HWPT0078	78M	42
HWPT0037	37M	5B'	HWPT0079	79M	43
HWPT0038	38M	5C'	HWPT0080	80M	45
HWPT0039	39M	16X	HWPT0081	81M	46
HWPT0040	40M	17A	FLARE STATION INLET=		FLARE
HWPT0041	41M	6A'			
HWPT0042	42M	6C'			

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ATTACHMENT 1

GAS MONITORING

PROBE DATA

January through March 2005

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Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Field Technician and Weather Conditions						
Technician	Date	Ambient Temp	Barometric Pressure (in - Hg)	General Weather	Wind Speed	Wind Direction
chepee	01/04/2005	48	2999.0	Raining	Breezy Wind	S
chepee	01/11/2005	56	2999.0	Partly Cloudy	Light Wind	SE
chepee	01/20/2005	73	2999.0	Partly Cloudy	Light Wind	SW
T Aguilar	01/26/2005	66	2990.0	Cloudy		
chepee	02/01/2005	68	2999.0	Mostly Clear	Light Wind	SW
chepee	02/08/2005	66	2999.0	Clear	Breezy Wind	N
chepee	02/15/2005	66	2999.0	Cloudy	Light Wind	N
chepee	02/21/2005	58	2999.0	Raining	Windy	SW
chepee	03/02/2005	62	2999.0	Cloudy	Light Wind	SE
chepee	03/08/2005	67	2999.0	Mostly Clear	Breezy Wind	SE
chepee	03/15/2005	67	2999.0	Clear	Light Wind	NE
chepee	03/22/2005	65	2999.0	Cloudy	Breezy Wind	SE
chepee	03/29/2005	56	2999.0	Clear	Light Wind	NE

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
01M	01/04/2005	10:27	0.0	3.7	16.9	79.4	0.0	-
01M	01/11/2005	10:47	0.0	2.5	17.3	80.2	0.0	-
01M	01/20/2005	10:45	0.0	1.9	18.8	79.3	0.0	-
01M	01/26/2005	11:56	0.0	1.7	18.3	80.0	0.0	-
01M	02/01/2005	09:47	0.0	1.6	19.5	78.9	0.0	-
01M	02/08/2005	10:49	0.0	1.6	19.4	79.0	0.0	-
01M	02/15/2005	11:42	0.0	1.7	19.5	78.8	0.0	-
01M	02/21/2005	11:07	0.0	2.1	17.5	80.4	0.0	-
01M	03/02/2005	10:38	0.0	4.2	13.4	82.4	0.0	-
01M	03/08/2005	09:21	0.0	1.4	18.9	79.7	0.0	-
01M	03/15/2005	09:06	0.0	2.3	18.6	79.1	0.0	-
01M	03/22/2005	10:21	0.0	1.7	18.8	79.5	0.0	-
01M	03/29/2005	10:55	0.0	1.9	18.7	79.4	0.0	-
02M	01/04/2005	10:28	0.0	0.3	19.5	80.2	0.0	-
02M	01/11/2005	10:48	0.0	0.0	20.4	79.6	0.0	-
02M	01/20/2005	10:46	0.0	0.0	20.5	79.5	0.0	-
02M	01/26/2005	11:58	0.0	1.5	17.6	80.9	0.0	-
02M	02/01/2005	09:47	0.0	0.0	20.6	79.4	0.0	-
02M	02/08/2005	10:50	0.0	0.0	20.3	79.7	0.0	-
02M	02/15/2005	11:43	0.0	1.0	19.3	79.7	0.0	-
02M	02/21/2005	11:08	0.0	2.2	18.4	79.4	0.0	-
02M	03/02/2005	10:39	0.0	0.1	18.4	81.5	0.0	-
02M	03/08/2005	09:22	0.0	0.0	20.0	80.0	0.0	-
02M	03/15/2005	09:07	0.0	0.0	20.1	79.9	0.0	-
02M	03/22/2005	10:22	0.0	1.9	18.5	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
02M	03/29/2005	10:56	0.0	0.0	19.9	80.1	0.0	-
03M	01/04/2005	10:31	0.0	0.1	20.9	79.0	0.0	-
03M	01/11/2005	10:50	0.0	0.4	20.6	79.0	0.0	-
03M	01/20/2005	10:49	0.0	1.6	18.3	80.1	0.0	-
03M	01/26/2005	12:00	0.0	0.0	20.1	79.9	0.0	-
03M	02/01/2005	09:50	0.0	0.2	20.6	79.2	0.0	-
03M	02/08/2005	10:52	0.0	0.4	20.5	79.1	0.0	-
03M	02/15/2005	11:45	0.0	0.6	20.1	79.3	0.0	-
03M	02/21/2005	11:10	0.0	10.2	8.5	81.3	0.0	-
03M	03/02/2005	10:41	0.0	1.8	18.8	79.4	0.0	-
03M	03/08/2005	09:31	0.0	0.0	20.2	79.8	0.0	-
03M	03/15/2005	09:11	0.0	0.0	20.3	79.7	0.0	-
03M	03/22/2005	10:24	0.0	0.9	19.2	79.9	0.0	-
03M	03/29/2005	10:58	0.0	0.1	20.1	79.8	0.0	-
04M	01/04/2005	10:32	0.0	3.3	17.5	79.2	0.0	-
04M	01/11/2005	10:51	0.0	2.8	17.9	79.3	0.0	-
04M	01/20/2005	10:49	0.0	0.4	20.0	79.6	0.0	-
04M	01/26/2005	12:02	0.0	0.0	20.3	79.7	0.0	-
04M	02/01/2005	09:51	0.0	0.2	20.6	79.2	0.0	-
04M	02/08/2005	10:53	0.0	0.3	20.5	79.2	0.0	-
04M	02/15/2005	11:46	0.0	0.6	20.2	79.2	0.0	-
04M	02/21/2005	11:10	0.0	4.8	13.7	81.5	0.0	-
04M	03/02/2005	10:42	0.0	2.1	17.9	80.0	0.0	-
04M	03/08/2005	09:32	0.0	0.4	20.2	79.4	0.0	-
04M	03/15/2005	09:12	0.0	0.2	20.3	79.5	0.0	-
04M	03/22/2005	10:25	0.0	0.4	19.9	79.7	0.0	-
04M	03/29/2005	10:59	0.0	0.7	19.6	79.7	0.0	-
05M	01/04/2005	10:34	0.0	6.7	14.1	79.2	0.0	-
05M	01/11/2005	10:53	0.0	5.7	15.3	79.0	0.0	-
05M	01/20/2005	10:51	0.0	6.8	14.5	78.7	0.0	-
05M	01/26/2005	12:04	0.0	2.0	17.7	80.3	0.0	-
05M	02/01/2005	09:53	0.0	2.0	18.8	79.2	0.0	-
05M	02/08/2005	10:55	0.0	3.8	17.2	79.0	0.0	-
05M	02/15/2005	11:48	0.0	5.2	16.0	78.8	0.0	-
05M	02/21/2005	11:12	0.0	11.3	8.9	79.8	0.0	-
05M	03/02/2005	10:44	0.0	0.8	18.4	80.8	0.0	-
05M	03/08/2005	09:34	0.0	4.9	16.8	78.3	0.0	-
05M	03/15/2005	09:14	0.0	1.6	18.2	80.2	0.0	-
05M	03/22/2005	10:27	0.0	14.3	7.0	78.7	0.0	-
05M	03/29/2005	11:01	0.0	7.2	13.4	79.4	0.0	-
06M	01/04/2005	10:35	0.0	1.0	17.0	82.0	0.0	-
06M	01/11/2005	10:54	0.0	1.5	19.3	79.2	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
06M	01/20/2005	10:53	0.0	0.8	19.5	79.7	0.0	-
06M	01/26/2005	12:06	0.0	0.0	20.2	79.8	0.0	-
06M	02/01/2005	09:54	0.0	0.0	20.5	79.5	0.0	-
06M	02/08/2005	10:56	0.0	0.0	20.4	79.6	0.0	-
06M	02/15/2005	11:49	0.0	0.4	20.0	79.6	0.0	-
06M	02/21/2005	11:14	0.0	9.1	11.0	79.9	0.0	-
06M	03/02/2005	10:45	0.0	0.0	20.4	79.6	0.0	-
06M	03/08/2005	09:35	0.0	0.0	20.2	79.8	0.0	-
06M	03/15/2005	09:15	0.0	0.0	19.9	80.1	0.0	-
06M	03/22/2005	10:28	0.0	4.0	15.3	80.7	0.0	-
06M	03/29/2005	11:02	0.0	0.1	19.5	80.4	0.0	-
07M	01/04/2005	10:36	0.0	3.7	17.5	78.8	0.0	-
07M	01/11/2005	10:55	0.0	0.0	20.6	79.4	0.0	-
07M	01/20/2005	10:53	0.0	0.0	20.5	79.5	0.0	-
07M	01/26/2005	12:08	0.0	0.0	20.6	79.4	0.0	-
07M	02/01/2005	09:55	0.0	0.0	20.7	79.3	0.0	-
07M	02/08/2005	10:57	0.0	0.9	20.2	78.9	0.0	-
07M	02/15/2005	11:50	0.0	1.4	19.7	78.9	0.0	-
07M	02/21/2005	11:15	0.0	7.3	12.1	80.6	0.0	-
07M	03/02/2005	10:46	0.0	2.3	18.6	79.1	0.0	-
07M	03/08/2005	09:36	0.0	0.0	20.2	79.8	0.0	-
07M	03/15/2005	09:16	0.0	0.0	20.3	79.7	0.0	-
07M	03/22/2005	10:29	0.0	5.7	15.3	79.0	0.0	-
07M	03/29/2005	11:03	0.0	0.1	20.2	79.7	0.0	-
08M	01/04/2005	10:38	0.0	0.5	19.0	80.5	0.0	-
08M	01/11/2005	10:57	0.0	0.0	20.9	79.1	0.0	-
08M	01/20/2005	10:55	0.0	0.0	20.7	79.3	0.0	-
08M	01/26/2005	12:10	0.0	0.8	19.6	79.6	0.0	-
08M	02/01/2005	09:57	0.0	0.0	20.7	79.3	0.0	-
08M	02/08/2005	10:59	0.0	0.0	20.6	79.4	0.0	-
08M	02/15/2005	11:54	0.0	0.0	20.8	79.2	0.0	-
08M	02/21/2005	11:18	0.0	6.4	13.1	80.5	0.0	-
08M	03/02/2005	10:48	0.0	0.0	20.3	79.7	0.0	-
08M	03/08/2005	09:38	0.0	0.0	20.2	79.8	0.0	-
08M	03/15/2005	09:18	0.0	0.0	20.3	79.7	0.0	-
08M	03/22/2005	10:31	0.0	11.8	7.9	80.3	0.0	-
08M	03/29/2005	11:05	0.0	0.0	20.3	79.7	0.0	-
09M	01/04/2005	10:38	0.0	0.0	20.8	79.2	0.0	-
09M	01/11/2005	10:58	0.0	0.0	20.9	79.1	0.0	-
09M	01/20/2005	10:56	0.0	0.0	20.7	79.3	0.0	-
09M	01/26/2005	12:12	0.0	0.9	19.5	79.6	0.0	-
09M	02/01/2005	09:58	0.0	0.0	20.7	79.3	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
09M	02/08/2005	10:59	0.0	0.0	20.7	79.3	0.0	-
09M	02/15/2005	11:54	0.0	0.1	21.0	78.9	0.0	-
09M	02/21/2005	11:19	0.0	0.7	19.5	79.8	0.0	-
09M	03/02/2005	10:48	0.0	2.8	18.4	78.8	0.0	-
09M	03/08/2005	09:39	0.0	0.0	20.2	79.8	0.0	-
09M	03/15/2005	09:19	0.0	0.0	20.4	79.6	0.0	-
09M	03/22/2005	10:32	0.0	5.6	13.6	80.8	0.0	-
09M	03/29/2005	11:06	0.0	4.8	17.4	77.8	0.0	-
10M	01/04/2005	10:41	0.0	0.2	20.4	79.4	0.0	-
10M	01/11/2005	11:02	0.0	0.3	20.4	79.3	0.0	-
10M	01/20/2005	10:58	0.0	0.6	19.7	79.7	0.0	-
10M	01/26/2005	12:14	0.0	0.0	20.2	79.8	0.0	-
10M	02/01/2005	10:00	0.0	0.6	18.6	80.8	0.0	-
10M	02/08/2005	11:01	0.0	0.4	20.0	79.6	0.0	-
10M	02/15/2005	11:56	0.0	0.4	20.3	79.3	0.0	-
10M	02/21/2005	11:21	0.0	0.8	19.0	80.2	0.0	-
10M	03/02/2005	10:50	0.0	0.7	19.2	80.1	0.0	-
10M	03/08/2005	09:41	0.0	0.2	19.8	80.0	0.0	-
10M	03/15/2005	09:20	0.0	0.1	20.1	79.8	0.0	-
10M	03/22/2005	10:34	0.0	0.1	18.6	81.3	0.0	-
10M	03/29/2005	11:08	0.0	0.5	18.4	81.1	0.0	-
11M	01/04/2005	10:42	0.0	0.4	20.2	79.4	0.0	-
11M	01/11/2005	11:02	0.0	0.4	19.5	80.1	0.0	-
11M	01/20/2005	10:59	0.0	0.1	20.4	79.5	0.0	-
11M	01/26/2005	12:16	0.0	0.2	19.0	80.8	0.0	-
11M	02/01/2005	10:00	0.0	0.0	20.3	79.7	0.0	-
11M	02/08/2005	11:02	0.0	0.0	20.5	79.5	0.0	-
11M	02/15/2005	11:57	0.0	0.3	19.2	80.5	0.0	-
11M	02/21/2005	11:22	0.0	0.3	19.4	80.3	0.0	-
11M	03/02/2005	10:51	0.0	0.1	19.9	80.0	0.0	-
11M	03/08/2005	09:40	0.0	0.0	20.0	80.0	0.0	-
11M	03/15/2005	09:21	0.0	0.0	20.1	79.9	0.0	-
11M	03/22/2005	10:34	0.0	0.1	19.4	80.5	0.0	-
11M	03/29/2005	11:09	0.0	0.0	20.1	79.9	0.0	-
12M	01/04/2005	10:42	0.0	0.4	20.2	79.4	0.0	-
12M	01/11/2005	11:03	0.0	2.9	17.0	80.1	0.0	-
12M	01/20/2005	11:00	0.0	0.5	19.9	79.6	0.0	-
12M	01/26/2005	12:18	0.0	0.0	20.1	79.9	0.0	-
12M	02/01/2005	10:01	0.0	0.4	20.1	79.5	0.0	-
12M	02/08/2005	11:03	0.0	1.6	19.3	79.1	0.0	-
12M	02/15/2005	11:58	0.0	0.8	19.9	79.3	0.0	-
12M	02/21/2005	11:22	0.0	0.7	19.2	80.1	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
12M	03/02/2005	10:51	0.0	0.3	19.9	79.8	0.0	-
12M	03/08/2005	09:42	0.0	0.2	20.2	79.6	0.0	-
12M	03/15/2005	09:22	0.0	0.3	20.0	79.7	0.0	-
12M	03/22/2005	10:35	0.0	0.5	19.4	80.1	0.0	-
12M	03/29/2005	11:09	0.0	0.8	18.9	80.3	0.0	-
13M	01/04/2005	10:43	0.0	0.0	20.7	79.3	0.0	-
13M	01/11/2005	11:09	0.0	5.9	15.0	79.1	0.0	-
13M	01/20/2005	11:01	0.0	4.1	15.9	80.0	0.0	-
13M	01/26/2005	12:20	0.0	0.1	19.9	80.0	0.0	-
13M	02/01/2005	10:02	0.0	0.0	20.6	79.4	0.0	-
13M	02/08/2005	11:04	0.0	0.8	19.4	79.8	0.0	-
13M	02/15/2005	11:59	0.0	1.1	18.8	80.1	0.0	-
13M	02/21/2005	11:23	0.0	3.2	15.0	81.8	0.0	-
13M	03/02/2005	10:53	0.0	0.1	20.3	79.6	0.0	-
13M	03/08/2005	09:43	0.0	0.0	20.3	79.7	0.0	-
13M	03/15/2005	09:23	0.0	0.0	20.3	79.7	0.0	-
13M	03/22/2005	10:36	0.0	1.7	18.1	80.2	0.0	-
13M	03/29/2005	11:11	0.0	0.9	18.5	80.6	0.0	-
14M	01/04/2005	10:44	0.0	0.0	20.9	79.1	0.0	-
14M	01/11/2005	11:09	0.0	0.0	20.1	79.9	0.0	-
14M	01/20/2005	11:02	0.0	0.0	20.4	79.6	0.0	-
14M	01/26/2005	12:22	0.0	0.0	20.6	79.4	0.0	-
14M	02/01/2005	10:03	0.0	0.0	20.7	79.3	0.0	-
14M	02/08/2005	11:05	0.0	0.0	20.6	79.4	0.0	-
14M	02/15/2005	12:00	0.0	0.0	20.8	79.2	0.0	-
14M	02/21/2005	11:25	0.0	0.0	19.8	80.2	0.0	-
14M	03/02/2005	10:53	0.0	0.0	20.4	79.6	0.0	-
14M	03/08/2005	09:44	0.0	0.1	20.2	79.7	0.0	-
14M	03/15/2005	09:24	0.0	0.0	20.3	79.7	0.0	-
14M	03/22/2005	10:37	0.0	0.0	20.0	80.0	0.0	-
14M	03/29/2005	11:11	0.0	0.0	20.0	80.0	0.0	-
15M	01/04/2005	10:46	0.0	0.8	20.7	78.5	0.0	-
15M	01/11/2005	11:11	0.0	1.6	18.8	79.6	0.0	-
15M	01/20/2005	11:04	0.0	0.4	20.3	79.3	0.0	-
15M	01/26/2005	12:24	0.0	0.9	19.4	79.7	0.0	-
15M	02/01/2005	10:05	0.0	1.3	19.7	79.0	0.0	-
15M	02/08/2005	11:07	0.0	1.4	19.3	79.3	0.0	-
15M	02/15/2005	12:02	0.0	1.4	19.6	79.0	0.0	-
15M	02/21/2005	11:27	0.0	1.4	19.1	79.5	0.0	-
15M	03/02/2005	10:55	0.0	1.5	19.2	79.3	0.0	-
15M	03/08/2005	09:46	0.0	1.0	19.6	79.4	0.0	-
15M	03/15/2005	09:27	0.0	0.8	19.6	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
15M	03/22/2005	10:39	0.0	0.9	19.4	79.7	0.0	-
15M	03/29/2005	11:14	0.0	1.0	19.3	79.7	0.0	-
16M	01/04/2005	10:48	0.0	0.2	20.4	79.4	0.0	-
16M	01/11/2005	11:14	0.0	1.6	18.5	79.9	0.0	-
16M	01/20/2005	11:06	0.0	0.0	20.8	79.2	0.0	-
16M	01/26/2005	12:26	0.0	0.0	20.2	79.8	0.0	-
16M	02/01/2005	10:08	0.0	0.0	20.6	79.4	0.0	-
16M	02/08/2005	11:09	0.0	0.3	20.5	79.2	0.0	-
16M	02/15/2005	12:04	0.0	0.9	19.9	79.2	0.0	-
16M	02/21/2005	11:29	0.0	0.4	19.6	80.0	0.0	-
16M	03/02/2005	10:57	0.0	2.4	18.4	79.2	0.0	-
16M	03/08/2005	09:48	0.0	0.0	20.3	79.7	0.0	-
16M	03/15/2005	09:29	0.0	0.0	20.3	79.7	0.0	-
16M	03/22/2005	10:41	0.0	0.4	19.6	80.0	0.0	-
16M	03/29/2005	11:15	0.0	0.0	20.2	79.8	0.0	-
17M	01/04/2005	10:53	0.0	0.0	20.7	79.3	0.0	-
17M	01/11/2005	11:15	0.0	0.0	20.7	79.3	0.0	-
17M	01/20/2005	11:11	0.0	0.2	20.5	79.3	0.0	-
17M	01/26/2005	12:28	0.0	0.1	20.0	79.9	0.0	-
17M	02/01/2005	10:09	0.0	0.0	20.6	79.4	0.0	-
17M	02/08/2005	11:11	0.0	0.1	20.5	79.4	0.0	-
17M	02/15/2005	12:11	0.0	0.0	20.9	79.1	0.0	-
17M	02/21/2005	11:30	0.0	0.3	20.5	79.2	0.0	-
17M	03/02/2005	10:58	0.0	0.1	20.2	79.7	0.0	-
17M	03/08/2005	09:50	0.0	0.2	20.2	79.6	0.0	-
17M	03/15/2005	09:30	0.0	0.1	20.2	79.7	0.0	-
17M	03/22/2005	10:43	0.0	0.2	20.1	79.7	0.0	-
17M	03/29/2005	11:17	0.0	0.0	20.3	79.7	0.0	-
18M	01/04/2005	10:54	0.0	0.3	20.4	79.3	0.0	-
18M	01/11/2005	11:16	0.0	0.3	20.7	79.0	0.0	-
18M	01/20/2005	11:11	0.0	0.1	20.5	79.4	0.0	-
18M	01/26/2005	12:30	0.0	0.0	20.4	79.6	0.0	-
18M	02/01/2005	10:10	0.0	0.0	20.5	79.5	0.0	-
18M	02/08/2005	11:12	0.0	0.1	20.6	79.3	0.0	-
18M	02/15/2005	12:11	0.0	0.1	20.9	79.0	0.0	-
18M	02/21/2005	11:31	0.0	0.2	20.4	79.4	0.0	-
18M	03/02/2005	10:59	0.0	0.1	20.4	79.5	0.0	-
18M	03/08/2005	09:51	0.0	0.0	20.2	79.8	0.0	-
18M	03/15/2005	09:31	0.0	0.1	20.3	79.6	0.0	-
18M	03/22/2005	10:43	0.0	0.1	20.2	79.7	0.0	-
18M	03/29/2005	11:17	0.0	0.1	20.3	79.6	0.0	-
19M	01/04/2005	10:56	0.0	0.0	20.9	79.1	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
19M	01/11/2005	11:21	0.0	0.0	20.9	79.1	0.0	-
19M	01/20/2005	11:13	0.0	0.0	20.6	79.4	0.0	-
19M	01/26/2005	12:32	0.0	0.0	20.6	79.4	0.0	-
19M	02/01/2005	10:12	0.0	0.0	20.6	79.4	0.0	-
19M	02/08/2005	11:13	0.0	0.0	20.7	79.3	0.0	-
19M	02/15/2005	12:13	0.0	0.0	21.0	79.0	0.0	-
19M	02/21/2005	11:33	0.0	0.0	20.6	79.4	0.0	-
19M	03/02/2005	11:00	0.0	0.0	20.4	79.6	0.0	-
19M	03/08/2005	09:53	0.0	0.0	20.2	79.8	0.0	-
19M	03/15/2005	09:33	0.0	0.0	20.3	79.7	0.0	-
19M	03/22/2005	10:45	0.0	0.0	20.3	79.7	0.0	-
19M	03/29/2005	11:19	0.0	0.0	20.4	79.6	0.0	-
20M	01/04/2005	10:58	0.0	0.0	21.0	79.0	0.0	-
20M	01/11/2005	11:26	0.0	0.0	20.8	79.2	0.0	-
20M	01/20/2005	11:19	0.0	0.0	20.8	79.2	0.0	-
20M	01/26/2005	12:34	0.0	0.0	20.7	79.3	0.0	-
20M	02/01/2005	10:14	0.0	0.0	20.7	79.3	0.0	-
20M	02/08/2005	11:15	0.0	0.0	20.7	79.3	0.0	-
20M	02/15/2005	12:18	0.0	0.0	20.9	79.1	0.0	-
20M	02/21/2005	11:36	0.0	0.0	20.7	79.3	0.0	-
20M	03/02/2005	11:02	0.0	0.0	20.5	79.5	0.0	-
20M	03/08/2005	09:55	0.0	0.0	20.3	79.7	0.0	-
20M	03/15/2005	09:35	0.0	0.0	20.4	79.6	0.0	-
20M	03/22/2005	10:47	0.0	0.0	20.3	79.7	0.0	-
20M	03/29/2005	11:21	0.0	0.0	20.4	79.6	0.0	-
21M	01/04/2005	11:01	0.0	0.0	21.0	79.0	0.0	-
21M	01/11/2005	11:29	0.0	0.0	20.9	79.1	0.0	-
21M	01/20/2005	11:21	0.0	0.3	20.4	79.3	0.0	-
21M	01/26/2005	12:36	0.0	0.0	20.6	79.4	0.0	-
21M	02/01/2005	10:15	0.0	0.0	20.8	79.2	0.0	-
21M	02/08/2005	11:16	0.0	0.3	20.5	79.2	0.0	-
21M	02/15/2005	12:20	0.0	1.6	19.0	79.4	0.0	-
21M	02/21/2005	11:37	0.0	0.0	20.8	79.2	0.0	-
21M	03/02/2005	11:03	0.0	0.0	20.5	79.5	0.0	-
21M	03/08/2005	09:56	0.0	0.0	20.2	79.8	0.0	-
21M	03/15/2005	09:36	0.0	0.0	20.4	79.6	0.0	-
21M	03/22/2005	10:48	0.0	1.5	18.7	79.8	0.0	-
21M	03/29/2005	11:22	0.0	0.0	20.5	79.5	0.0	-
22M	01/04/2005	11:02	0.0	0.0	21.0	79.0	0.0	-
22M	01/11/2005	11:31	0.0	0.8	20.0	79.2	0.0	-
22M	01/20/2005	11:22	0.0	0.0	20.7	79.3	0.0	-
22M	01/26/2005	12:38	0.0	1.0	19.2	79.8	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
22M	02/01/2005	10:17	0.0	0.0	20.7	79.3	0.0	-
22M	02/08/2005	11:18	0.0	0.0	20.7	79.3	0.0	-
22M	02/15/2005	12:21	0.0	0.0	20.6	79.4	0.0	-
22M	02/21/2005	11:39	0.0	0.0	20.8	79.2	0.0	-
22M	03/02/2005	11:04	0.0	7.2	13.6	79.2	0.0	-
22M	03/08/2005	09:57	0.0	0.0	20.2	79.8	0.0	-
22M	03/15/2005	09:38	0.0	0.0	20.4	79.6	0.0	-
22M	03/22/2005	10:50	0.0	2.8	17.6	79.6	0.0	-
22M	03/29/2005	11:23	0.0	0.0	20.4	79.6	0.0	-
23M	01/04/2005	11:04	0.0	0.0	21.0	79.0	0.0	-
23M	01/11/2005	11:32	0.0	4.6	15.1	80.3	0.0	-
23M	01/20/2005	11:23	0.0	0.4	20.2	79.4	0.0	-
23M	01/26/2005	12:40	0.0	0.5	19.7	79.8	0.0	-
23M	02/01/2005	10:18	0.0	0.0	20.6	79.4	0.0	-
23M	02/08/2005	11:19	0.0	0.0	20.7	79.3	0.0	-
23M	02/15/2005	12:22	0.0	0.0	20.8	79.2	0.0	-
23M	02/21/2005	11:40	0.0	0.0	20.8	79.2	0.0	-
23M	03/02/2005	11:05	0.0	0.1	19.6	80.3	0.0	-
23M	03/08/2005	09:58	0.0	0.0	20.3	79.7	0.0	-
23M	03/15/2005	09:39	0.0	0.0	20.4	79.6	0.0	-
23M	03/22/2005	10:51	0.0	0.3	19.7	80.0	0.0	-
23M	03/29/2005	11:24	0.0	0.0	20.4	79.6	0.0	-
24M	01/04/2005	11:05	0.0	0.0	21.0	79.0	0.0	-
24M	01/11/2005	11:33	0.0	0.0	20.1	79.9	0.0	-
24M	01/20/2005	11:25	0.0	0.0	20.6	79.4	0.0	-
24M	01/26/2005	12:42	0.0	0.0	20.2	79.8	0.0	-
24M	02/01/2005	10:19	0.0	0.0	20.6	79.4	0.0	-
24M	02/08/2005	11:20	0.0	0.0	20.7	79.3	0.0	-
24M	02/15/2005	12:24	0.0	0.0	20.9	79.1	-2.7	-
24M	02/21/2005	11:41	0.0	1.0	19.7	79.3	0.0	-
24M	03/02/2005	11:07	0.0	0.0	20.4	79.6	0.0	-
24M	03/08/2005	10:00	0.0	0.0	20.3	79.7	0.0	-
24M	03/15/2005	09:41	0.0	0.0	20.3	79.7	0.0	-
24M	03/22/2005	10:52	0.0	0.0	20.2	79.8	0.0	-
24M	03/29/2005	11:26	0.0	0.0	20.4	79.6	0.0	-
25M	01/04/2005	11:05	0.0	0.0	21.0	79.0	0.0	-
25M	01/11/2005	11:34	0.0	3.7	16.5	79.8	0.0	-
25M	01/20/2005	11:25	0.0	2.4	17.6	80.0	0.0	-
25M	01/26/2005	12:44	0.0	0.0	20.6	79.4	0.0	-
25M	02/01/2005	10:20	0.0	0.0	20.7	79.3	0.0	-
25M	02/08/2005	11:21	0.0	0.8	19.6	79.6	0.0	-
25M	02/15/2005	12:25	0.0	4.0	16.0	80.0	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
25M	02/21/2005	11:42	0.0	0.0	19.9	80.1	0.0	-
25M	03/02/2005	11:07	0.0	0.5	19.9	79.6	0.0	-
25M	03/08/2005	10:00	0.0	0.0	20.3	79.7	0.0	-
25M	03/15/2005	09:41	0.0	0.0	20.4	79.6	0.0	-
25M	03/22/2005	10:53	0.0	0.1	20.1	79.8	0.0	-
25M	03/29/2005	11:26	0.0	0.0	20.5	79.5	0.0	-
26M	01/04/2005	11:06	0.0	0.0	21.0	79.0	0.0	-
26M	01/11/2005	11:35	0.0	0.7	19.6	79.7	0.0	-
26M	01/20/2005	11:26	0.0	0.0	20.4	79.6	0.0	-
26M	01/26/2005	12:46	0.0	0.0	20.3	79.7	0.0	-
26M	02/01/2005	10:21	0.0	0.0	20.7	79.3	0.0	-
26M	02/08/2005	11:22	0.0	0.0	20.5	79.5	0.0	-
26M	02/15/2005	12:28	0.0	0.3	20.1	79.6	0.0	-
26M	02/21/2005	11:43	0.0	0.0	20.7	79.3	0.0	-
26M	03/02/2005	11:08	0.0	0.4	20.0	79.6	0.0	-
26M	03/08/2005	10:02	0.0	0.0	20.2	79.8	0.0	-
26M	03/15/2005	09:42	0.0	0.0	20.4	79.6	0.0	-
26M	03/22/2005	10:54	0.0	0.3	20.0	79.7	0.0	-
26M	03/29/2005	11:27	0.0	0.0	20.5	79.5	0.0	-
27M	01/04/2005	11:07	0.0	0.0	21.0	79.0	0.0	-
27M	01/11/2005	11:36	0.0	0.0	20.8	79.2	0.0	-
27M	01/20/2005	11:27	0.0	0.0	20.6	79.4	0.0	-
27M	01/26/2005	12:48	0.0	0.0	20.5	79.5	0.0	-
27M	02/01/2005	10:23	0.0	0.0	20.7	79.3	0.0	-
27M	02/08/2005	11:23	0.0	0.0	20.7	79.3	0.0	-
27M	02/15/2005	12:30	0.0	0.0	20.9	79.1	0.0	-
27M	02/21/2005	11:44	0.0	0.1	20.7	79.2	0.0	-
27M	03/02/2005	11:09	0.0	0.1	20.2	79.7	0.0	-
27M	03/08/2005	10:03	0.0	0.0	20.3	79.7	0.0	-
27M	03/15/2005	09:51	0.0	0.0	20.3	79.7	0.0	-
27M	03/22/2005	10:55	0.0	0.0	20.3	79.7	0.0	-
27M	03/29/2005	11:29	0.0	0.0	20.4	79.6	0.0	-
28M	01/04/2005	11:08	0.0	0.5	20.5	79.0	0.0	-
28M	01/11/2005	11:37	0.0	3.4	16.9	79.7	0.0	-
28M	01/20/2005	11:28	0.0	2.0	18.6	79.4	0.0	-
28M	01/26/2005	12:50	0.0	0.2	20.0	79.8	0.0	-
28M	02/01/2005	10:23	0.0	0.3	20.4	79.3	0.0	-
28M	02/08/2005	11:24	0.0	0.9	19.7	79.4	0.0	-
28M	02/15/2005	12:31	0.0	1.9	18.7	79.4	0.0	-
28M	02/21/2005	11:45	0.0	3.6	16.9	79.5	0.0	-
28M	03/02/2005	11:10	0.0	0.8	19.7	79.5	0.0	-
28M	03/08/2005	10:04	0.0	0.1	20.2	79.7	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
28M	03/15/2005	09:52	0.0	0.1	20.3	79.6	0.1	-
28M	03/22/2005	10:55	0.0	2.3	17.7	80.0	0.0	-
28M	03/29/2005	11:29	0.0	0.7	19.4	79.9	0.0	-
29M	01/04/2005	11:09	0.0	0.0	20.6	79.4	0.0	-
29M	01/11/2005	11:39	0.0	0.7	19.9	79.4	0.0	-
29M	01/20/2005	11:29	0.0	0.5	20.0	79.5	0.0	-
29M	01/26/2005	12:52	0.0	0.0	20.1	79.9	0.0	-
29M	02/01/2005	10:24	0.0	0.0	20.6	79.4	0.0	-
29M	02/08/2005	11:24	0.0	0.0	20.5	79.5	0.0	-
29M	02/15/2005	12:32	0.0	0.0	20.9	79.1	0.0	-
29M	02/21/2005	11:46	0.0	2.6	17.0	80.4	0.0	-
29M	03/02/2005	11:11	0.0	0.0	20.3	79.7	0.0	-
29M	03/08/2005	10:05	0.0	0.0	20.2	79.8	0.0	-
29M	03/15/2005	09:53	0.0	0.0	20.4	79.6	0.0	-
29M	03/22/2005	10:56	0.0	0.0	20.0	80.0	0.0	-
29M	03/29/2005	11:30	0.0	0.0	20.3	79.7	0.0	-
30M	01/04/2005	11:10	0.0	0.0	20.9	79.1	0.0	-
30M	01/11/2005	11:39	0.0	4.4	15.8	79.8	0.0	-
30M	01/20/2005	11:30	0.0	0.0	20.6	79.4	0.0	-
30M	01/26/2005	12:54	0.0	0.0	20.6	79.4	0.0	-
30M	02/01/2005	10:25	0.0	0.0	20.7	79.3	0.0	-
30M	02/08/2005	11:25	0.0	0.0	20.7	79.3	0.0	-
30M	02/15/2005	12:33	0.0	1.7	19.0	79.3	0.0	-
30M	02/21/2005	11:47	0.0	0.0	19.9	80.1	0.0	-
30M	03/02/2005	11:11	0.0	0.0	20.5	79.5	0.0	-
30M	03/08/2005	10:06	0.0	0.0	20.2	79.8	0.0	-
30M	03/15/2005	09:54	0.0	0.0	20.4	79.6	0.0	-
30M	03/22/2005	10:57	0.0	0.0	20.4	79.6	0.0	-
30M	03/29/2005	11:31	0.0	0.0	20.5	79.5	0.0	-
31M	01/04/2005	11:11	0.0	0.0	21.1	78.9	0.0	-
31M	01/11/2005	11:41	0.0	0.0	20.8	79.2	0.0	-
31M	01/20/2005	11:31	0.0	0.0	20.7	79.3	0.0	-
31M	01/26/2005	12:56	0.0	0.0	20.5	79.5	0.0	-
31M	02/01/2005	10:26	0.0	0.0	20.7	79.3	0.0	-
31M	02/08/2005	11:27	0.0	0.0	20.7	79.3	0.0	-
31M	02/15/2005	12:34	0.0	1.0	19.0	80.0	0.0	-
31M	02/21/2005	11:48	0.0	0.0	20.8	79.2	0.0	-
31M	03/02/2005	11:12	0.0	0.0	20.5	79.5	0.0	-
31M	03/08/2005	10:09	0.0	0.0	20.3	79.7	0.0	-
31M	03/15/2005	09:55	0.0	0.0	20.4	79.6	0.0	-
31M	03/22/2005	10:58	0.0	0.2	20.2	79.6	0.0	-
31M	03/29/2005	11:32	0.0	0.0	20.4	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
32M	01/04/2005	11:12	0.0	0.0	21.0	79.0	0.0	-
32M	01/11/2005	11:42	0.0	0.0	20.9	79.1	0.0	-
32M	01/20/2005	11:33	0.0	0.0	20.7	79.3	0.0	-
32M	01/26/2005	12:58	0.0	0.0	20.2	79.8	0.0	-
32M	02/01/2005	10:28	0.0	0.0	20.7	79.3	0.0	-
32M	02/08/2005	11:29	0.0	0.0	20.8	79.2	0.0	-
32M	02/15/2005	12:35	0.0	0.0	21.0	79.0	0.0	-
32M	02/21/2005	11:49	0.0	0.1	20.8	79.1	0.0	-
32M	03/02/2005	11:13	0.0	0.0	20.4	79.6	0.0	-
32M	03/08/2005	10:10	0.0	0.0	20.3	79.7	0.0	-
32M	03/15/2005	09:56	0.0	0.0	20.4	79.6	0.0	-
32M	03/22/2005	10:59	0.0	0.1	20.2	79.7	0.0	-
32M	03/29/2005	11:33	0.0	0.0	20.4	79.6	0.0	-
33M	01/04/2005	11:13	0.0	0.0	21.0	79.0	0.0	-
33M	01/11/2005	11:43	0.0	1.8	19.1	79.1	0.0	-
33M	01/20/2005	11:34	0.0	0.0	20.7	79.3	0.0	-
33M	01/26/2005	13:01	0.0	0.0	20.5	79.5	0.0	-
33M	02/01/2005	10:29	0.0	0.0	20.8	79.2	0.0	-
33M	02/08/2005	11:29	0.0	0.0	20.8	79.2	0.0	-
33M	02/15/2005	12:36	0.0	4.4	16.2	79.4	0.0	-
33M	02/21/2005	11:50	0.0	0.0	20.8	79.2	0.0	-
33M	03/02/2005	11:14	0.0	0.0	20.5	79.5	0.0	-
33M	03/08/2005	10:11	0.0	0.0	20.4	79.6	0.0	-
33M	03/15/2005	09:57	0.0	0.0	20.5	79.5	0.0	-
33M	03/22/2005	11:00	0.0	4.7	14.6	80.7	0.0	-
33M	03/29/2005	11:34	0.0	0.0	20.5	79.5	0.0	-
34M	01/04/2005	11:14	0.0	0.0	21.0	79.0	0.0	-
34M	01/11/2005	11:46	0.0	2.8	17.3	79.9	0.0	-
34M	01/20/2005	11:35	0.0	0.0	20.7	79.3	0.0	-
34M	01/26/2005	13:03	0.0	0.0	20.5	79.5	0.0	-
34M	02/01/2005	10:30	0.0	0.0	20.7	79.3	0.0	-
34M	02/08/2005	11:31	0.0	0.0	20.8	79.2	0.0	-
34M	02/15/2005	12:40	0.0	0.6	20.0	79.4	0.0	-
34M	02/21/2005	11:53	0.0	1.5	19.1	79.4	0.0	-
34M	03/02/2005	11:15	0.0	0.0	20.6	79.4	0.0	-
34M	03/08/2005	10:12	0.0	0.0	20.3	79.7	0.0	-
34M	03/15/2005	09:59	0.0	0.0	20.4	79.6	0.1	-
34M	03/22/2005	11:01	0.0	0.6	19.3	80.1	0.0	-
34M	03/29/2005	11:35	0.0	0.1	20.2	79.7	0.0	-
35M	01/04/2005	11:15	0.0	0.0	21.0	79.0	0.0	-
35M	01/11/2005	11:46	0.0	2.8	17.3	79.9	0.0	-
35M	01/20/2005	11:36	0.0	2.9	17.5	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
35M	01/26/2005	13:05	0.0	1.3	18.5	80.2	0.0	-
35M	02/01/2005	10:31	0.0	0.0	20.7	79.3	0.0	-
35M	02/08/2005	11:32	0.0	2.3	18.1	79.6	0.0	-
35M	02/15/2005	12:40	0.0	2.8	17.6	79.6	0.0	-
35M	02/21/2005	11:54	0.0	2.5	18.1	79.4	0.0	-
35M	03/02/2005	11:15	0.0	1.7	18.4	79.9	0.0	-
35M	03/08/2005	10:13	0.0	0.0	20.3	79.7	0.0	-
35M	03/15/2005	09:59	0.0	0.0	20.5	79.5	0.0	-
35M	03/22/2005	11:02	0.0	3.7	16.4	79.9	0.0	-
35M	03/29/2005	11:36	0.0	0.0	20.3	79.7	0.0	-
36M	01/04/2005	11:16	0.0	1.1	20.1	78.8	0.0	-
36M	01/11/2005	11:47	0.0	1.1	19.3	79.6	0.0	-
36M	01/20/2005	11:37	0.0	1.0	19.6	79.4	0.0	-
36M	01/26/2005	13:07	0.0	0.6	19.5	79.9	0.0	-
36M	02/01/2005	10:32	0.0	0.3	20.3	79.4	0.0	-
36M	02/08/2005	11:33	0.0	1.1	19.5	79.4	0.0	-
36M	02/15/2005	12:42	0.0	2.3	18.2	79.5	0.0	-
36M	02/21/2005	11:55	0.0	2.4	17.3	80.3	0.0	-
36M	03/02/2005	11:16	0.0	1.1	18.9	80.0	0.0	-
36M	03/08/2005	10:19	0.0	1.3	19.1	79.6	0.0	-
36M	03/15/2005	10:01	0.0	0.3	20.2	79.5	0.1	-
36M	03/22/2005	11:03	0.0	1.6	18.5	79.9	0.0	-
36M	03/29/2005	11:37	0.0	1.1	19.3	79.6	0.0	-
37M	01/04/2005	11:17	0.0	0.0	20.7	79.3	0.0	-
37M	01/11/2005	11:48	0.0	0.0	20.7	79.3	0.0	-
37M	01/20/2005	11:38	0.0	0.6	20.0	79.4	0.0	-
37M	01/26/2005	13:09	0.0	0.0	20.5	79.5	0.0	-
37M	02/01/2005	10:33	0.0	0.0	20.7	79.3	0.0	-
37M	02/08/2005	11:34	0.0	0.0	20.7	79.3	0.0	-
37M	02/15/2005	12:48	0.0	1.1	19.5	79.4	0.0	-
37M	02/21/2005	11:56	0.0	1.3	18.9	79.8	0.0	-
37M	03/02/2005	11:18	0.0	0.1	20.2	79.7	0.0	-
37M	03/08/2005	10:20	0.0	0.0	20.2	79.8	0.0	-
37M	03/15/2005	10:02	0.0	0.0	20.4	79.6	0.0	-
37M	03/22/2005	11:04	0.0	3.7	15.6	80.7	0.0	-
37M	03/29/2005	11:38	0.0	0.0	20.4	79.6	0.0	-
38M	01/04/2005	11:18	0.0	0.0	21.0	79.0	0.0	-
38M	01/11/2005	11:49	0.0	3.7	17.0	79.3	0.0	-
38M	01/20/2005	11:39	0.0	3.7	16.6	79.7	0.0	-
38M	01/26/2005	13:11	0.0	0.2	19.9	79.9	0.0	-
38M	02/01/2005	10:34	0.0	0.0	20.7	79.3	0.0	-
38M	02/08/2005	11:34	0.0	3.3	17.1	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
38M	02/15/2005	12:49	0.0	3.5	16.9	79.6	0.0	-
38M	02/21/2005	11:57	0.0	2.0	17.7	80.3	0.0	-
38M	03/02/2005	11:18	0.0	2.9	17.1	80.0	0.0	-
38M	03/08/2005	10:21	0.0	0.0	20.3	79.7	0.0	-
38M	03/15/2005	10:03	0.0	0.0	20.5	79.5	0.0	-
38M	03/22/2005	11:05	0.0	3.8	15.2	81.0	0.0	-
38M	03/29/2005	11:39	0.0	0.0	20.5	79.5	0.0	-
39M	01/04/2005	11:19	0.0	1.0	20.0	79.0	0.0	-
39M	01/11/2005	11:56	0.0	1.8	18.4	79.8	0.0	-
39M	01/20/2005	11:40	0.0	0.2	20.4	79.4	0.0	-
39M	01/26/2005	13:13	0.0	0.0	20.3	79.7	0.0	-
39M	02/01/2005	10:35	0.0	0.0	20.8	79.2	0.0	-
39M	02/08/2005	11:35	0.0	0.1	20.5	79.4	0.0	-
39M	02/15/2005	12:50	0.0	0.2	20.4	79.4	0.0	-
39M	02/21/2005	11:58	0.0	1.1	18.7	80.2	0.0	-
39M	03/02/2005	11:19	0.0	0.3	20.0	79.7	0.0	-
39M	03/08/2005	10:22	0.0	0.2	20.3	79.5	0.0	-
39M	03/15/2005	10:04	0.0	0.1	20.4	79.5	0.0	-
39M	03/22/2005	11:06	0.0	0.0	20.0	80.0	0.0	-
39M	03/29/2005	11:40	0.0	0.2	20.3	79.5	0.0	-
40M	01/04/2005	11:20	0.0	0.4	20.7	78.9	0.0	-
40M	01/11/2005	11:58	0.0	1.0	20.2	78.8	0.0	-
40M	01/20/2005	11:42	0.0	0.0	20.7	79.3	0.0	-
40M	01/26/2005	13:15	0.0	0.0	20.2	79.8	0.0	-
40M	02/01/2005	10:36	0.0	0.0	20.7	79.3	0.0	-
40M	02/08/2005	11:37	0.0	0.0	20.6	79.4	0.0	-
40M	02/15/2005	12:52	0.0	0.0	20.8	79.2	0.0	-
40M	02/21/2005	11:59	0.0	0.4	20.2	79.4	0.0	-
40M	03/02/2005	11:20	0.0	0.3	20.1	79.6	0.0	-
40M	03/08/2005	10:24	0.0	0.1	20.3	79.6	0.0	-
40M	03/15/2005	10:05	0.0	0.0	20.3	79.7	0.0	-
40M	03/22/2005	11:07	0.0	0.3	20.2	79.5	0.0	-
40M	03/29/2005	11:41	0.0	0.1	20.2	79.7	0.0	-
41M	01/04/2005	11:22	0.0	0.0	20.9	79.1	0.0	-
41M	01/11/2005	11:59	0.0	2.5	18.3	79.2	0.0	-
41M	01/20/2005	11:44	0.0	0.1	20.7	79.2	0.0	-
41M	01/26/2005	13:17	0.0	0.5	19.5	80.0	0.0	-
41M	02/01/2005	10:38	0.0	0.0	20.7	79.3	0.0	-
41M	02/08/2005	11:38	0.0	0.0	20.7	79.3	0.0	-
41M	02/15/2005	12:54	0.0	1.6	19.3	79.1	0.0	-
41M	02/21/2005	12:00	0.0	2.5	18.8	78.7	0.0	-
41M	03/02/2005	11:21	0.0	0.0	20.5	79.5	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
41M	03/08/2005	10:24	0.0	0.0	20.2	79.8	0.0	-
41M	03/15/2005	10:07	0.0	0.0	20.4	79.6	0.0	-
41M	03/22/2005	11:08	0.0	2.8	17.6	79.6	0.0	-
41M	03/29/2005	11:42	0.0	0.0	20.4	79.6	0.0	-
42M	01/04/2005	11:23	0.0	0.0	21.0	79.0	0.0	-
42M	01/11/2005	12:00	0.0	3.6	16.9	79.5	0.0	-
42M	01/20/2005	11:45	0.0	3.4	16.9	79.7	0.0	-
42M	01/26/2005	13:19	0.0	1.4	18.5	80.1	0.0	-
42M	02/01/2005	10:39	0.0	2.3	18.4	79.3	0.0	-
42M	02/08/2005	11:39	0.0	3.5	17.3	79.2	0.0	-
42M	02/15/2005	12:55	0.0	3.3	17.2	79.5	0.0	-
42M	02/21/2005	12:01	0.0	3.3	17.6	79.1	0.0	-
42M	03/02/2005	11:22	0.0	3.6	16.7	79.7	0.0	-
42M	03/08/2005	10:25	0.0	0.6	19.8	79.6	0.0	-
42M	03/15/2005	10:07	0.0	0.0	20.5	79.5	0.0	-
42M	03/22/2005	11:09	0.0	1.6	18.5	79.9	0.0	-
42M	03/29/2005	11:43	0.0	0.4	20.0	79.6	0.0	-
43M	01/04/2005	11:24	0.0	0.5	20.6	78.9	0.0	-
43M	01/11/2005	12:03	0.0	2.5	18.1	79.4	0.0	-
43M	01/20/2005	11:46	0.0	0.7	19.6	79.7	0.0	-
43M	01/26/2005	13:21	0.0	0.7	19.1	80.2	0.0	-
43M	02/01/2005	10:41	0.0	0.2	20.4	79.4	0.0	-
43M	02/08/2005	11:40	0.0	0.3	20.3	79.4	0.0	-
43M	02/15/2005	12:57	0.0	0.6	20.0	79.4	0.0	-
43M	02/21/2005	12:03	0.0	2.5	17.8	79.7	0.0	-
43M	03/02/2005	11:23	0.0	0.2	20.0	79.8	0.0	-
43M	03/08/2005	10:26	0.0	0.4	19.9	79.7	0.0	-
43M	03/15/2005	10:09	0.0	0.4	20.1	79.5	0.0	-
43M	03/22/2005	11:10	0.0	0.8	19.3	79.9	0.0	-
43M	03/29/2005	11:44	0.0	0.5	19.8	79.7	0.0	-
44M	01/04/2005	11:25	0.0	0.0	20.6	79.4	0.0	-
44M	01/11/2005	12:03	0.0	2.1	18.4	79.5	0.0	-
44M	01/20/2005	11:47	0.0	1.1	19.4	79.5	0.0	-
44M	01/26/2005	13:23	0.0	1.0	18.7	80.3	0.0	-
44M	02/01/2005	10:42	0.0	0.0	20.6	79.4	0.0	-
44M	02/08/2005	11:41	0.0	0.6	20.2	79.2	0.0	-
44M	02/15/2005	12:58	0.0	0.9	19.8	79.3	0.0	-
44M	02/21/2005	12:03	0.0	2.7	17.4	79.9	0.0	-
44M	03/02/2005	11:24	0.0	0.7	19.7	79.6	0.0	-
44M	03/08/2005	10:27	0.0	0.0	20.2	79.8	0.0	-
44M	03/15/2005	10:09	0.0	0.0	20.4	79.6	0.0	-
44M	03/22/2005	11:11	0.0	1.1	19.0	79.9	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
44M	03/29/2005	11:45	0.0	0.0	20.3	79.7	0.0	-
45M	01/04/2005	11:26	0.0	0.4	20.7	78.9	0.0	-
45M	01/11/2005	12:05	0.0	3.6	16.8	79.6	0.0	-
45M	01/20/2005	11:49	0.0	1.0	19.5	79.5	0.0	-
45M	01/26/2005	13:25	0.0	5.7	13.1	81.2	0.0	-
45M	02/01/2005	10:43	0.0	1.0	19.8	79.2	0.0	-
45M	02/08/2005	11:43	0.0	1.6	19.2	79.2	0.0	-
45M	02/15/2005	13:00	0.0	1.0	19.8	79.2	0.0	-
45M	02/21/2005	12:05	0.0	3.3	16.8	79.9	0.0	-
45M	03/02/2005	11:25	0.0	1.0	19.3	79.7	0.0	-
45M	03/08/2005	10:29	0.0	0.4	19.9	79.7	0.0	-
45M	03/15/2005	10:11	0.0	0.3	20.2	79.5	0.0	-
45M	03/22/2005	11:12	0.0	1.8	18.5	79.7	0.0	-
45M	03/29/2005	11:47	0.0	1.1	19.0	79.9	0.0	-
46M	01/04/2005	11:28	0.0	0.0	20.9	79.1	0.0	-
46M	01/11/2005	12:06	0.0	2.0	18.1	79.9	0.0	-
46M	01/20/2005	11:50	0.0	1.5	18.8	79.7	0.0	-
46M	01/26/2005	13:27	0.0	1.0	18.3	80.7	0.0	-
46M	02/01/2005	10:44	0.0	0.0	20.7	79.3	0.0	-
46M	02/08/2005	11:45	0.0	1.8	18.7	79.5	0.0	-
46M	02/15/2005	13:01	0.0	1.8	18.9	79.3	0.0	-
46M	02/21/2005	12:06	0.0	2.0	17.9	80.1	0.0	-
46M	03/02/2005	11:26	0.0	1.5	18.8	79.7	0.0	-
46M	03/08/2005	10:30	0.0	0.0	20.2	79.8	0.0	-
46M	03/15/2005	10:16	0.0	0.0	20.4	79.6	0.0	-
46M	03/22/2005	11:13	0.0	2.0	17.8	80.2	0.0	-
46M	03/29/2005	11:48	0.0	1.7	18.3	80.0	0.0	-
47M	01/04/2005	11:28	0.0	1.1	20.0	78.9	0.0	-
47M	01/11/2005	12:07	0.0	1.8	18.6	79.6	0.0	-
47M	01/20/2005	11:51	0.0	0.0	20.6	79.4	0.0	-
47M	01/26/2005	13:29	0.0	0.2	19.7	80.1	0.0	-
47M	02/01/2005	10:45	0.0	0.0	20.8	79.2	0.0	-
47M	02/08/2005	11:46	0.0	0.0	20.6	79.4	0.0	-
47M	02/15/2005	13:02	0.0	0.0	21.0	79.0	0.0	-
47M	02/21/2005	12:06	0.0	0.7	19.6	79.7	0.0	-
47M	03/02/2005	11:27	0.0	1.3	19.1	79.6	0.0	-
47M	03/08/2005	10:31	0.0	0.0	20.3	79.7	0.0	-
47M	03/15/2005	10:17	0.0	0.0	20.5	79.5	0.0	-
47M	03/22/2005	11:14	0.0	1.5	18.2	80.3	0.0	-
47M	03/29/2005	11:48	0.0	0.0	20.2	79.8	0.0	-
48M	01/04/2005	11:30	0.0	2.1	18.3	79.6	0.0	-
48M	01/11/2005	12:08	0.0	1.8	18.6	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
48M	01/20/2005	11:52	0.0	0.4	20.1	79.5	0.0	-
48M	01/26/2005	13:31	0.0	0.8	18.9	80.3	0.0	-
48M	02/01/2005	10:47	0.0	0.2	20.6	79.2	0.0	-
48M	02/08/2005	11:47	0.0	0.2	20.6	79.2	0.0	-
48M	02/15/2005	13:03	0.0	0.1	20.8	79.1	0.0	-
48M	02/21/2005	12:08	0.0	0.9	19.7	79.4	0.0	-
48M	03/02/2005	11:28	0.0	0.4	20.0	79.6	0.0	-
48M	03/08/2005	10:32	0.0	0.5	20.1	79.4	0.0	-
48M	03/15/2005	10:18	0.0	0.4	20.2	79.4	0.0	-
48M	03/22/2005	11:15	0.0	0.4	19.8	79.8	0.0	-
48M	03/29/2005	11:50	0.0	0.4	20.0	79.6	0.0	-
49M	01/04/2005	11:32	0.0	1.8	19.0	79.2	0.0	-
49M	01/11/2005	12:10	0.0	1.8	18.6	79.6	0.0	-
49M	01/20/2005	11:54	0.0	1.6	19.2	79.2	0.0	-
49M	01/26/2005	13:33	0.0	2.3	17.8	79.9	0.0	-
49M	02/01/2005	10:49	0.0	1.4	19.6	79.0	0.0	-
49M	02/08/2005	11:48	0.0	1.4	19.6	79.0	0.0	-
49M	02/15/2005	13:07	0.0	1.1	19.9	79.0	0.0	-
49M	02/21/2005	12:09	0.0	2.0	18.7	79.3	0.0	-
49M	03/02/2005	11:29	0.0	1.0	19.5	79.5	0.0	-
49M	03/08/2005	10:33	0.0	1.8	18.6	79.6	0.0	-
49M	03/15/2005	10:19	0.0	2.0	18.6	79.4	0.0	-
49M	03/22/2005	11:16	0.0	1.9	18.9	79.2	0.0	-
49M	03/29/2005	11:51	0.0	1.6	18.8	79.6	0.0	-
50M	01/04/2005	11:33	0.0	1.8	19.6	78.6	0.0	-
50M	01/11/2005	12:11	0.0	1.8	19.2	79.0	0.0	-
50M	01/20/2005	11:55	0.0	1.7	19.2	79.1	0.0	-
50M	01/26/2005	13:35	0.0	1.2	18.8	80.0	0.0	-
50M	02/01/2005	10:50	0.0	1.6	19.2	79.2	0.0	-
50M	02/08/2005	11:49	0.0	1.7	19.2	79.1	0.0	-
50M	02/15/2005	13:08	0.0	1.7	19.3	79.0	0.0	-
50M	02/21/2005	12:10	0.0	1.5	19.3	79.2	0.0	-
50M	03/02/2005	11:30	0.0	1.1	19.0	79.9	0.0	-
50M	03/08/2005	10:34	0.0	1.3	18.8	79.9	0.0	-
50M	03/15/2005	10:20	0.0	1.3	18.8	79.9	0.0	-
50M	03/22/2005	11:17	0.0	1.5	18.8	79.7	0.0	-
50M	03/29/2005	11:52	0.0	1.7	18.6	79.7	0.0	-
51M	01/04/2005	11:35	0.0	1.3	19.8	78.9	0.0	-
51M	01/11/2005	12:13	0.0	1.4	19.3	79.3	0.0	-
51M	01/20/2005	11:57	0.0	1.3	19.2	79.5	0.0	-
51M	01/26/2005	13:37	0.0	0.9	19.3	79.8	0.0	-
51M	02/01/2005	10:52	0.0	1.1	19.5	79.4	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
51M	02/08/2005	11:52	0.0	1.1	19.4	79.5	0.0	-
51M	02/15/2005	13:11	0.0	1.1	19.6	79.3	0.0	-
51M	02/21/2005	12:13	0.0	1.3	19.3	79.4	0.0	-
51M	03/02/2005	11:32	0.0	1.4	18.8	79.8	0.0	-
51M	03/08/2005	10:37	0.0	1.1	18.9	80.0	0.0	-
51M	03/15/2005	10:23	0.0	1.5	18.7	79.8	0.0	-
51M	03/22/2005	11:19	0.0	1.4	18.8	79.8	0.0	-
51M	03/29/2005	11:54	0.0	1.5	18.6	79.9	0.0	-
52M	01/04/2005	11:36	0.0	0.4	20.5	79.1	0.0	-
52M	01/11/2005	12:14	0.0	1.3	19.6	79.1	0.0	-
52M	01/20/2005	11:58	0.0	0.7	19.8	79.5	0.0	-
52M	01/26/2005	13:39	0.0	0.2	19.9	79.9	0.0	-
52M	02/01/2005	10:53	0.0	0.0	20.5	79.5	0.0	-
52M	02/08/2005	11:53	0.0	0.3	20.3	79.4	0.0	-
52M	02/15/2005	13:11	0.0	1.0	19.8	79.2	0.0	-
52M	02/21/2005	12:14	0.0	1.0	19.9	79.1	0.1	-
52M	03/02/2005	11:32	0.0	1.3	18.8	79.9	0.0	-
52M	03/08/2005	10:38	0.0	1.0	19.0	80.0	0.0	-
52M	03/15/2005	10:23	0.0	0.0	20.1	79.9	0.0	-
52M	03/22/2005	11:20	0.0	1.0	19.2	79.8	0.0	-
52M	03/29/2005	11:55	0.0	1.0	19.1	79.9	0.0	-
53M	01/04/2005	11:38	0.0	1.1	19.7	79.2	0.0	-
53M	01/11/2005	12:16	0.0	1.6	19.2	79.2	0.0	-
53M	01/20/2005	12:00	0.0	0.4	20.3	79.3	0.0	-
53M	01/26/2005	13:41	0.0	0.1	20.1	79.8	0.0	-
53M	02/01/2005	10:55	0.0	0.4	20.4	79.2	0.0	-
53M	02/08/2005	11:55	0.0	0.2	20.5	79.3	0.0	-
53M	02/15/2005	13:16	0.0	0.3	20.4	79.3	0.0	-
53M	02/21/2005	12:16	0.0	1.1	19.5	79.4	-0.1	-
53M	03/02/2005	11:34	0.0	0.1	20.1	79.8	0.0	-
53M	03/08/2005	10:40	0.0	0.2	19.9	79.9	0.0	-
53M	03/15/2005	10:26	0.0	0.2	20.1	79.7	0.0	-
53M	03/22/2005	11:22	0.0	0.6	19.7	79.7	0.0	-
53M	03/29/2005	11:57	0.0	0.4	20.0	79.6	0.0	-
54M	01/04/2005	11:40	0.0	1.5	19.5	79.0	0.0	-
54M	01/11/2005	12:17	0.0	1.6	18.9	79.5	0.0	-
54M	01/20/2005	12:02	0.0	1.4	19.0	79.6	0.0	-
54M	01/26/2005	13:43	0.0	1.7	18.0	80.3	0.0	-
54M	02/01/2005	10:57	0.0	0.0	20.7	79.3	0.0	-
54M	02/08/2005	11:57	0.0	1.3	19.6	79.1	0.0	-
54M	02/15/2005	13:19	0.0	1.4	19.6	79.0	0.0	-
54M	02/21/2005	12:18	0.0	1.6	19.2	79.2	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
54M	03/02/2005	11:35	0.0	1.0	18.9	80.1	0.0	-
54M	03/08/2005	10:42	0.0	0.0	20.2	79.8	0.0	-
54M	03/15/2005	10:28	0.0	0.1	20.2	79.7	0.0	-
54M	03/22/2005	11:23	0.0	0.9	19.4	79.7	0.0	-
54M	03/29/2005	11:59	0.0	0.5	19.8	79.7	0.0	-
55M	01/04/2005	11:42	0.0	2.0	19.3	78.7	0.0	-
55M	01/11/2005	12:19	0.0	2.0	19.0	79.0	0.0	-
55M	01/20/2005	12:04	0.0	0.0	20.6	79.4	0.0	-
55M	01/26/2005	13:45	0.0	0.8	19.2	80.0	0.0	-
55M	02/01/2005	10:59	0.0	0.0	20.7	79.3	0.0	-
55M	02/08/2005	11:58	0.0	0.0	20.7	79.3	0.0	-
55M	02/15/2005	13:30	0.0	0.0	20.8	79.2	0.0	-
55M	02/21/2005	12:20	0.0	1.9	19.2	78.9	0.0	-
55M	03/02/2005	11:36	0.0	0.0	20.3	79.7	0.0	-
55M	03/08/2005	10:44	0.0	0.0	20.2	79.8	0.0	-
55M	03/15/2005	10:29	0.0	0.0	20.3	79.7	0.0	-
55M	03/22/2005	11:24	0.0	0.0	20.3	79.7	0.0	-
55M	03/29/2005	12:00	0.0	0.0	20.3	79.7	0.0	-
56M	01/04/2005	11:43	0.0	1.9	19.5	78.6	0.0	-
56M	01/11/2005	12:20	0.0	1.9	19.1	79.0	0.0	-
56M	01/20/2005	12:06	0.0	0.6	20.2	79.2	0.0	-
56M	01/26/2005	13:47	0.0	0.0	20.2	79.8	0.0	-
56M	02/01/2005	11:00	0.0	0.0	20.7	79.3	0.0	-
56M	02/08/2005	12:00	0.0	0.1	20.7	79.2	0.0	-
56M	02/15/2005	13:33	0.0	0.5	20.5	79.0	0.0	-
56M	02/21/2005	12:22	0.0	1.6	19.4	79.0	0.0	-
56M	03/02/2005	11:37	0.0	0.0	20.5	79.5	0.0	-
56M	03/08/2005	10:45	0.0	0.0	20.2	79.8	0.0	-
56M	03/15/2005	10:30	0.0	0.0	20.3	79.7	0.0	-
56M	03/22/2005	11:26	0.0	0.3	20.0	79.7	0.0	-
56M	03/29/2005	12:02	0.0	0.3	20.1	79.6	0.0	-
57M	01/04/2005	11:45	0.0	2.3	18.8	78.9	0.0	-
57M	01/11/2005	12:22	0.0	1.8	18.7	79.5	0.0	-
57M	01/20/2005	12:08	0.0	1.6	18.7	79.7	0.0	-
57M	01/26/2005	13:49	0.0	0.2	19.7	80.1	0.0	-
57M	02/01/2005	11:02	0.0	0.0	20.7	79.3	0.0	-
57M	02/08/2005	12:01	0.0	1.0	19.4	79.6	0.0	-
57M	02/15/2005	13:35	0.0	1.9	18.5	79.6	0.0	-
57M	02/21/2005	12:24	0.0	1.8	18.4	79.8	0.0	-
57M	03/02/2005	11:38	0.0	0.0	20.4	79.6	0.0	-
57M	03/08/2005	10:47	0.0	0.0	20.3	79.7	0.0	-
57M	03/15/2005	10:32	0.0	0.0	20.4	79.6	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
57M	03/22/2005	11:27	0.0	1.1	19.0	79.9	0.0	-
57M	03/29/2005	12:04	0.0	0.0	20.3	79.7	0.0	-
58M	01/04/2005	11:47	0.0	0.7	20.5	78.8	0.0	-
58M	01/11/2005	12:23	0.0	1.5	19.1	79.4	0.0	-
58M	01/20/2005	12:10	0.0	1.1	18.9	80.0	0.0	-
58M	01/26/2005	13:51	0.0	0.7	19.2	80.1	0.0	-
58M	02/01/2005	11:03	0.0	0.0	20.6	79.4	0.0	-
58M	02/08/2005	12:03	0.0	1.5	19.0	79.5	0.0	-
58M	02/15/2005	13:36	0.0	1.4	19.0	79.6	0.0	-
58M	02/21/2005	12:26	0.0	1.5	18.6	79.9	0.0	-
58M	03/02/2005	11:40	0.0	0.5	19.8	79.7	0.0	-
58M	03/08/2005	10:48	0.0	0.0	20.2	79.8	0.0	-
58M	03/15/2005	10:34	0.0	0.0	20.3	79.7	0.0	-
58M	03/22/2005	11:28	0.0	1.7	18.4	79.9	0.0	-
58M	03/29/2005	12:05	0.0	0.0	20.3	79.7	0.0	-
59M	01/04/2005	11:48	0.0	1.0	20.0	79.0	0.0	-
59M	01/11/2005	12:25	0.0	0.8	19.8	79.4	0.0	-
59M	01/20/2005	12:12	0.0	0.0	20.5	79.5	0.0	-
59M	01/26/2005	13:53	0.0	0.2	19.6	80.2	0.0	-
59M	02/01/2005	11:05	0.0	0.0	20.7	79.3	0.0	-
59M	02/08/2005	12:05	0.0	0.0	20.5	79.5	0.0	-
59M	02/15/2005	13:38	0.0	0.3	20.3	79.4	0.0	-
59M	02/21/2005	12:27	0.0	0.7	19.7	79.6	0.0	-
59M	03/02/2005	11:41	0.0	0.1	20.1	79.8	0.0	-
59M	03/08/2005	10:50	0.0	0.0	20.2	79.8	0.0	-
59M	03/15/2005	10:35	0.0	0.0	20.3	79.7	0.0	-
59M	03/22/2005	11:30	0.0	0.4	19.6	80.0	0.0	-
59M	03/29/2005	12:06	0.0	0.2	20.0	79.8	0.0	-
60M	01/04/2005	11:50	0.0	1.5	19.6	78.9	0.0	-
60M	01/11/2005	12:27	0.0	1.4	19.5	79.1	0.0	-
60M	01/20/2005	12:14	0.0	0.9	19.8	79.3	0.0	-
60M	01/26/2005	13:55	0.0	0.8	19.0	80.2	0.0	-
60M	02/01/2005	11:07	0.0	0.0	20.7	79.3	0.0	-
60M	02/08/2005	12:06	0.0	0.8	19.9	79.3	0.0	-
60M	02/15/2005	13:40	0.0	0.4	20.4	79.2	0.0	-
60M	02/21/2005	12:29	0.0	1.3	19.6	79.1	0.0	-
60M	03/02/2005	11:42	0.0	0.6	19.8	79.6	0.0	-
60M	03/08/2005	10:52	0.0	0.7	19.5	79.8	0.0	-
60M	03/15/2005	10:37	0.0	0.0	20.3	79.7	0.0	-
60M	03/22/2005	11:31	0.0	0.9	19.3	79.8	0.0	-
60M	03/29/2005	12:08	0.0	0.8	19.4	79.8	0.0	-
61M	01/04/2005	11:52	0.0	0.0	20.9	79.1	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
61M	01/11/2005	12:28	0.0	0.8	19.7	79.5	0.0	-
61M	01/20/2005	12:16	0.0	0.1	20.5	79.4	0.0	-
61M	01/26/2005	13:56	0.0	0.3	19.3	80.4	0.0	-
61M	02/01/2005	11:09	0.0	0.0	20.6	79.4	0.0	-
61M	02/08/2005	12:08	0.0	0.0	20.7	79.3	0.0	-
61M	02/15/2005	13:42	0.0	0.1	20.8	79.1	0.0	-
61M	02/21/2005	12:30	0.0	0.8	19.4	79.8	0.0	-
61M	03/02/2005	11:43	0.0	0.0	20.3	79.7	0.0	-
61M	03/08/2005	10:53	0.0	0.0	20.2	79.8	0.0	-
61M	03/15/2005	10:38	0.0	0.0	20.2	79.8	0.0	-
61M	03/22/2005	11:33	0.0	0.2	20.0	79.8	0.0	-
61M	03/29/2005	12:09	0.0	0.0	20.1	79.9	0.0	-
62M	01/04/2005	11:53	0.0	1.7	19.2	79.1	0.0	-
62M	01/11/2005	12:29	0.0	1.5	19.2	79.3	0.0	-
62M	01/20/2005	12:17	0.0	0.4	19.4	80.2	0.0	-
62M	01/26/2005	13:58	0.0	7.0	12.1	80.9	0.0	-
62M	02/01/2005	11:10	0.0	1.3	19.3	79.4	0.0	-
62M	02/08/2005	12:09	0.0	0.6	19.4	80.0	0.0	-
62M	02/15/2005	13:43	0.0	0.4	20.0	79.6	0.0	-
62M	02/21/2005	12:31	0.0	1.4	19.3	79.3	0.0	-
62M	03/02/2005	11:44	0.0	0.7	19.0	80.3	0.0	-
62M	03/08/2005	10:54	0.0	0.9	18.9	80.2	0.0	-
62M	03/15/2005	10:40	0.0	1.3	18.8	79.9	0.0	-
62M	03/22/2005	11:34	0.0	1.3	19.2	79.5	0.0	-
62M	03/29/2005	12:11	0.0	0.9	19.1	80.0	0.0	-
63M	01/04/2005	11:56	0.0	6.5	10.5	83.0	0.0	-
63M	01/11/2005	12:31	0.0	3.7	14.5	81.8	0.0	-
63M	01/20/2005	12:19	0.0	0.3	19.9	79.8	0.0	-
63M	01/26/2005	14:02	0.0	0.7	18.8	80.5	0.0	-
63M	02/01/2005	11:12	0.0	0.0	20.4	79.6	0.0	-
63M	02/08/2005	12:11	0.0	0.0	20.6	79.4	0.0	-
63M	02/15/2005	13:45	0.0	0.0	20.7	79.3	0.0	-
63M	02/21/2005	12:34	0.0	4.0	12.6	83.4	0.0	-
63M	03/02/2005	11:46	0.0	0.0	20.3	79.7	0.0	-
63M	03/08/2005	10:56	0.0	0.0	20.1	79.9	0.0	-
63M	03/15/2005	10:43	0.0	0.0	20.0	80.0	0.0	-
63M	03/22/2005	11:36	0.0	0.0	20.1	79.9	0.0	-
63M	03/29/2005	12:13	0.0	0.0	20.0	80.0	0.0	-
64M	01/04/2005	11:57	0.0	1.0	20.1	78.9	0.0	-
64M	01/11/2005	12:33	0.0	0.1	20.3	79.6	0.0	-
64M	01/20/2005	12:21	0.0	0.0	20.5	79.5	0.0	-
64M	01/26/2005	14:04	0.0	1.2	19.0	79.8	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
64M	02/01/2005	11:14	0.0	0.0	20.5	79.5	0.0	-
64M	02/08/2005	12:12	0.0	0.0	20.7	79.3	0.0	-
64M	02/15/2005	13:46	0.0	0.0	20.9	79.1	0.0	-
64M	02/21/2005	12:35	0.0	0.0	19.1	80.9	0.0	-
64M	03/02/2005	11:47	0.0	0.1	20.4	79.5	0.0	-
64M	03/08/2005	10:58	0.0	0.2	20.1	79.7	0.0	-
64M	03/15/2005	10:45	0.0	0.4	19.7	79.9	0.0	-
64M	03/22/2005	11:37	0.0	0.1	20.2	79.7	0.0	-
64M	03/29/2005	12:14	0.0	0.3	20.0	79.7	0.0	-
65M	01/04/2005	12:03	0.0	0.3	19.0	80.7	0.0	-
65M	01/11/2005	12:35	0.0	0.5	19.9	79.6	0.0	-
65M	01/20/2005	12:23	0.0	0.3	19.9	79.8	0.0	-
65M	01/26/2005	14:06	0.0	0.0	20.1	79.9	0.0	-
65M	02/01/2005	11:16	0.0	0.2	20.4	79.4	0.0	-
65M	02/08/2005	12:14	0.0	0.2	20.6	79.2	0.0	-
65M	02/15/2005	13:50	0.0	0.4	20.6	79.0	0.0	-
65M	02/21/2005	12:37	0.0	1.0	11.4	87.6	0.0	-
65M	03/02/2005	11:48	0.0	0.4	20.2	79.4	0.0	-
65M	03/08/2005	11:00	0.0	0.3	19.9	79.8	0.0	-
65M	03/15/2005	10:47	0.0	0.2	19.9	79.9	0.0	-
65M	03/22/2005	11:38	0.0	0.2	20.1	79.7	0.0	-
65M	03/29/2005	12:16	0.0	0.3	20.0	79.7	0.0	-
66M	01/04/2005	12:05	0.0	0.1	20.8	79.1	0.0	-
66M	01/11/2005	12:36	0.0	0.2	20.8	79.0	0.0	-
66M	01/20/2005	12:24	0.0	0.0	20.6	79.4	0.0	-
66M	01/26/2005	14:08	0.0	0.1	19.9	80.0	0.0	-
66M	02/01/2005	11:17	0.0	0.1	20.4	79.5	0.0	-
66M	02/08/2005	12:16	0.0	0.0	20.7	79.3	0.0	-
66M	02/15/2005	13:53	0.0	0.0	20.8	79.2	0.0	-
66M	02/21/2005	12:39	0.0	0.4	18.2	81.4	0.0	-
66M	03/02/2005	11:50	0.0	0.1	20.2	79.7	0.0	-
66M	03/08/2005	11:01	0.0	0.1	20.0	79.9	0.0	-
66M	03/15/2005	10:48	0.0	0.2	19.9	79.9	0.0	-
66M	03/22/2005	11:40	0.0	0.2	20.2	79.6	0.0	-
66M	03/29/2005	12:18	0.0	0.2	20.1	79.7	0.0	-
67M	01/04/2005	12:07	0.0	0.7	18.9	80.4	0.0	-
67M	01/11/2005	12:39	0.0	0.2	20.6	79.2	0.0	-
67M	01/20/2005	12:26	0.0	0.0	20.6	79.4	0.0	-
67M	01/26/2005	14:10	0.0	0.0	20.0	80.0	0.0	-
67M	02/01/2005	11:19	0.0	0.0	20.6	79.4	0.0	-
67M	02/08/2005	12:19	0.0	0.0	20.7	79.3	0.0	-
67M	02/15/2005	13:56	0.0	0.1	20.8	79.1	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
67M	02/21/2005	12:41	0.0	0.3	19.8	79.9	0.0	-
67M	03/02/2005	11:52	0.0	0.0	20.3	79.7	0.0	-
67M	03/08/2005	11:04	0.0	0.0	20.1	79.9	0.0	-
67M	03/15/2005	10:50	0.0	0.0	20.2	79.8	0.0	-
67M	03/22/2005	11:42	0.0	0.0	20.3	79.7	0.0	-
67M	03/29/2005	12:20	0.0	0.0	20.2	79.8	0.0	-
68M	01/04/2005	12:09	0.0	0.0	20.9	79.1	0.0	-
68M	01/11/2005	12:40	0.0	1.0	19.6	79.4	0.0	-
68M	01/20/2005	12:27	0.0	0.8	19.7	79.5	0.0	-
68M	01/26/2005	13:12	0.0	0.3	19.7	80.0	0.0	-
68M	02/01/2005	11:21	0.0	0.0	20.6	79.4	0.0	-
68M	02/08/2005	12:20	0.0	0.6	20.0	79.4	0.0	-
68M	02/15/2005	13:58	0.0	0.7	20.1	79.2	0.0	-
68M	02/21/2005	12:42	0.0	1.6	18.5	79.9	0.0	-
68M	03/02/2005	11:53	0.0	1.0	19.1	79.9	0.0	-
68M	03/08/2005	11:05	0.0	0.0	20.2	79.8	0.0	-
68M	03/15/2005	10:52	0.0	0.0	20.2	79.8	0.0	-
68M	03/22/2005	11:43	0.0	0.7	19.4	79.9	0.0	-
68M	03/29/2005	12:21	0.0	0.4	19.9	79.7	0.0	-
69M	01/04/2005	09:59	0.0	0.1	20.9	79.0	0.0	-
69M	01/11/2005	10:19	0.0	0.0	20.9	79.1	0.0	-
69M	01/20/2005	10:17	0.0	0.0	20.7	79.3	0.0	-
69M	01/26/2005	11:30	0.0	0.1	19.6	80.3	0.0	-
69M	02/01/2005	09:18	0.0	0.0	20.6	79.4	0.0	-
69M	02/08/2005	10:22	0.0	0.0	20.4	79.6	0.0	-
69M	02/15/2005	11:13	0.0	0.1	20.8	79.1	0.2	-
69M	02/21/2005	10:39	0.0	1.3	17.2	81.5	0.0	-
69M	03/02/2005	10:14	0.0	0.1	21.1	78.8	0.2	-
69M	03/08/2005	08:54	0.0	0.0	20.4	79.6	0.0	-
69M	03/15/2005	08:38	0.0	0.0	20.2	79.8	0.0	-
69M	03/22/2005	09:53	0.0	0.5	20.0	79.5	0.0	-
69M	03/29/2005	10:20	0.0	0.0	20.4	79.6	0.0	-
70M	01/04/2005	10:01	0.0	3.8	14.9	81.3	0.0	-
70M	01/11/2005	10:20	0.0	2.9	16.4	80.7	0.0	-
70M	01/20/2005	10:20	0.0	0.6	19.9	79.5	0.0	-
70M	01/26/2005	11:32	0.0	0.2	19.8	80.0	0.0	-
70M	02/01/2005	09:20	0.0	0.1	20.6	79.3	0.0	-
70M	02/08/2005	10:23	0.0	0.0	20.4	79.6	0.0	-
70M	02/15/2005	11:15	0.0	0.1	20.7	79.2	0.0	-
70M	02/21/2005	10:41	0.0	1.9	16.2	81.9	0.0	-
70M	03/02/2005	10:16	0.0	0.2	20.9	78.9	0.0	-
70M	03/08/2005	08:56	0.0	0.3	20.2	79.5	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
70M	03/15/2005	08:40	0.0	0.0	20.3	79.7	0.0	-
70M	03/22/2005	09:54	0.0	0.3	20.1	79.6	0.0	-
70M	03/29/2005	10:21	0.0	0.1	20.3	79.6	0.0	-
71M	01/04/2005	10:04	0.0	0.7	19.2	80.1	0.0	-
71M	01/11/2005	10:23	0.0	0.0	20.1	79.9	0.0	-
71M	01/20/2005	10:22	0.0	0.0	20.5	79.5	0.0	-
71M	01/26/2005	11:34	0.0	0.0	20.2	79.8	0.0	-
71M	02/01/2005	09:23	0.0	0.0	20.7	79.3	0.0	-
71M	02/08/2005	10:27	0.0	0.0	20.4	79.6	0.0	-
71M	02/15/2005	11:17	0.0	0.0	20.9	79.1	0.0	-
71M	02/21/2005	10:43	0.0	0.3	19.1	80.6	0.0	-
71M	03/02/2005	10:18	0.0	0.0	21.3	78.7	0.0	-
71M	03/08/2005	08:58	0.0	0.0	20.4	79.6	0.0	-
71M	03/15/2005	08:43	0.0	0.0	20.3	79.7	0.0	-
71M	03/22/2005	09:57	0.0	0.0	20.5	79.5	0.0	-
71M	03/29/2005	10:24	0.0	0.0	20.4	79.6	0.0	-
72M	01/04/2005	10:06	0.0	0.8	19.8	79.4	-0.1	-
72M	01/11/2005	10:25	0.0	1.8	18.5	79.7	0.0	-
72M	01/20/2005	10:24	0.0	1.0	19.2	79.8	0.0	-
72M	01/26/2005	11:36	0.0	0.0	20.2	79.8	0.0	-
72M	02/01/2005	09:25	0.0	0.1	20.5	79.4	0.0	-
72M	02/08/2005	10:29	0.0	0.2	20.4	79.4	0.0	-
72M	02/15/2005	11:21	0.0	2.7	16.9	80.4	0.0	-
72M	02/21/2005	10:45	0.0	1.1	18.3	80.6	0.0	-
72M	03/02/2005	10:21	0.0	0.2	20.6	79.2	0.0	-
72M	03/08/2005	09:00	0.0	0.1	20.4	79.5	0.0	-
72M	03/15/2005	08:45	0.0	0.4	19.7	79.9	0.0	-
72M	03/22/2005	10:02	0.0	0.0	20.6	79.4	0.0	-
72M	03/29/2005	10:26	0.0	0.3	20.0	79.7	0.0	-
73M	01/04/2005	10:08	0.0	2.4	17.2	80.4	0.0	-
73M	01/11/2005	10:27	0.0	0.3	20.3	79.4	0.0	-
73M	01/20/2005	10:27	0.0	0.2	20.0	79.8	0.0	-
73M	01/26/2005	11:38	0.0	0.1	20.2	79.7	0.0	-
73M	02/01/2005	09:26	0.0	0.0	20.6	79.4	0.0	-
73M	02/08/2005	10:31	0.0	0.0	20.5	79.5	0.0	-
73M	02/15/2005	11:23	0.0	0.0	20.9	79.1	0.0	-
73M	02/21/2005	10:48	0.0	0.3	20.2	79.5	0.0	-
73M	03/02/2005	10:23	0.0	0.0	20.7	79.3	0.0	-
73M	03/08/2005	09:02	0.0	0.0	20.4	79.6	0.0	-
73M	03/15/2005	08:47	0.0	0.0	20.3	79.7	0.0	-
73M	03/22/2005	10:04	0.0	0.0	20.6	79.4	0.0	-
73M	03/29/2005	10:28	0.0	0.0	20.3	79.7	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

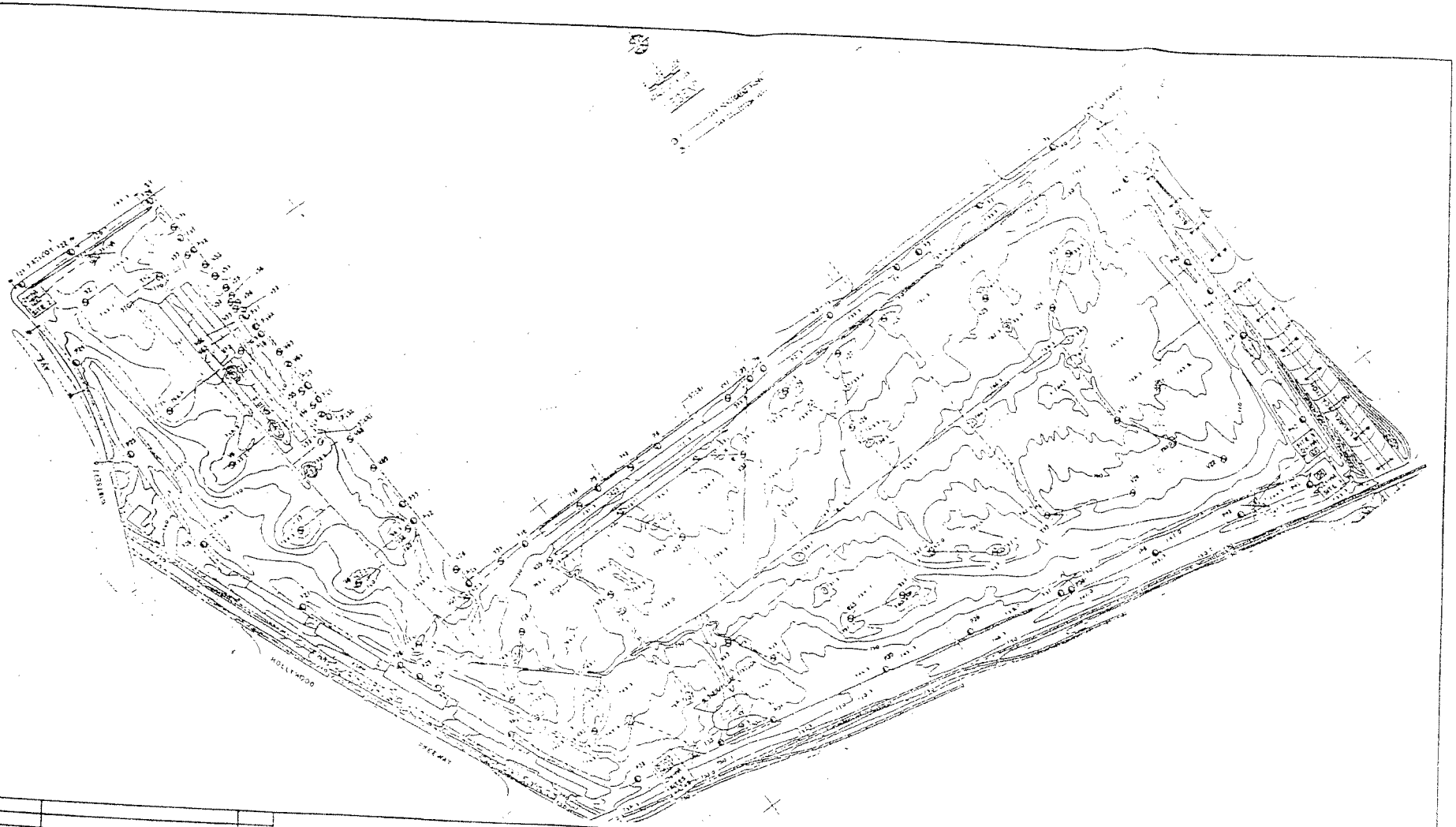
Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
74M	01/04/2005	10:10	0.0	0.5	20.2	79.3	0.0	-
74M	01/11/2005	10:29	0.0	0.7	19.8	79.5	0.0	-
74M	01/20/2005	10:29	0.0	0.1	20.5	79.4	0.0	-
74M	01/26/2005	11:40	0.0	0.0	20.2	79.8	0.0	-
74M	02/01/2005	09:29	0.0	0.1	20.6	79.3	0.0	-
74M	02/08/2005	10:33	0.0	0.2	20.5	79.3	0.0	-
74M	02/15/2005	11:25	0.0	0.2	20.9	78.9	0.0	-
74M	02/21/2005	10:49	0.0	0.0	20.8	79.2	0.0	-
74M	03/02/2005	10:25	0.0	0.1	20.7	79.2	0.0	-
74M	03/08/2005	09:04	0.0	0.2	20.4	79.4	0.0	-
74M	03/15/2005	08:49	0.0	0.1	20.2	79.7	0.0	-
74M	03/22/2005	10:06	0.0	0.1	20.4	79.5	0.0	-
74M	03/29/2005	10:35	0.0	0.1	20.2	79.7	0.0	-
75M	01/04/2005	10:12	0.0	0.2	20.6	79.2	0.0	-
75M	01/11/2005	10:31	0.0	0.0	20.8	79.2	0.0	-
75M	01/20/2005	10:31	0.0	0.4	20.5	79.4	0.0	-
75M	01/26/2005	11:42	0.0	0.0	20.3	79.7	0.0	-
75M	02/01/2005	09:31	0.0	0.0	20.6	79.4	0.0	-
75M	02/08/2005	10:35	0.0	0.0	20.4	79.6	0.0	-
75M	02/15/2005	11:28	0.0	0.0	20.9	79.1	0.0	-
75M	02/21/2005	10:51	0.0	0.0	20.8	79.2	0.0	-
75M	03/02/2005	10:27	0.0	0.0	20.6	79.4	0.0	-
75M	03/08/2005	09:06	0.0	0.0	20.3	79.7	0.0	-
75M	03/15/2005	08:52	0.0	0.0	20.2	79.8	0.0	-
75M	03/22/2005	10:08	0.0	0.0	20.4	79.6	0.0	-
75M	03/29/2005	10:37	0.0	0.0	20.2	79.8	0.0	-
76M	01/04/2005	10:14	0.0	0.0	20.9	79.1	0.0	-
76M	01/11/2005	10:34	0.0	0.0	21.0	79.0	0.0	-
76M	01/20/2005	10:33	0.0	0.0	20.6	79.4	0.0	-
76M	01/26/2005	11:44	0.0	0.0	20.6	79.4	0.0	-
76M	02/01/2005	09:34	0.0	0.0	20.6	79.4	0.0	-
76M	02/08/2005	10:37	0.0	0.0	20.4	79.6	0.0	-
76M	02/15/2005	11:30	0.0	0.0	20.9	79.1	0.0	-
76M	02/21/2005	10:54	0.0	0.0	20.7	79.3	0.0	-
76M	03/02/2005	10:29	0.0	0.0	20.6	79.4	0.0	-
76M	03/08/2005	09:08	0.0	0.0	20.4	79.6	0.0	-
76M	03/15/2005	08:54	0.0	0.0	20.3	79.7	0.0	-
76M	03/22/2005	10:10	0.0	0.0	20.4	79.6	0.0	-
76M	03/29/2005	10:39	0.0	0.0	20.2	79.8	0.0	-
77M	01/04/2005	10:15	0.0	0.0	21.0	79.0	0.0	-
77M	01/11/2005	10:34	0.0	0.0	21.0	79.0	0.0	-
77M	01/20/2005	10:33	0.0	0.0	20.7	79.3	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
77M	01/26/2005	11:46	0.0	0.0	20.6	79.4	0.0	-
77M	02/01/2005	09:34	0.0	0.0	20.7	79.3	0.0	-
77M	02/08/2005	10:38	0.0	0.0	20.5	79.5	0.0	-
77M	02/15/2005	11:30	0.0	0.0	20.9	79.1	0.0	-
77M	02/21/2005	10:54	0.0	0.0	20.7	79.3	0.0	-
77M	03/02/2005	10:29	0.0	0.0	20.6	79.4	0.0	-
77M	03/08/2005	09:09	0.0	0.0	20.5	79.5	0.0	-
77M	03/15/2005	08:55	0.0	0.0	20.3	79.7	0.0	-
77M	03/22/2005	10:10	0.0	0.0	20.5	79.5	0.0	-
77M	03/29/2005	10:39	0.0	0.0	20.2	79.8	0.0	-
78M	01/04/2005	10:17	0.0	1.9	17.5	80.6	0.0	-
78M	01/11/2005	10:36	0.0	1.8	16.6	81.6	0.0	-
78M	01/20/2005	10:36	0.0	1.5	19.0	79.5	0.0	-
78M	01/26/2005	11:48	0.0	1.5	18.3	80.2	0.0	-
78M	02/01/2005	09:37	0.0	1.3	19.3	79.4	0.0	-
78M	02/08/2005	10:40	0.0	3.4	17.1	79.5	0.0	-
78M	02/15/2005	11:33	0.0	1.5	19.1	79.4	0.0	-
78M	02/21/2005	10:57	0.0	3.9	11.4	84.7	0.0	-
78M	03/02/2005	10:31	0.0	1.7	18.7	79.6	0.0	-
78M	03/08/2005	09:11	0.0	1.1	19.1	79.8	0.0	-
78M	03/15/2005	08:57	0.0	0.5	19.8	79.7	0.0	-
78M	03/22/2005	10:12	0.0	1.1	19.2	79.7	0.0	-
78M	03/29/2005	10:41	0.0	6.7	14.2	79.1	0.0	-
79M	01/04/2005	10:19	0.0	12.7	7.7	79.6	0.0	-
79M	01/11/2005	10:38	0.0	0.0	20.7	79.3	0.0	-
79M	01/20/2005	10:38	0.0	5.6	14.1	80.3	0.0	-
79M	01/26/2005	11:50	0.0	0.0	20.1	79.9	0.0	-
79M	02/01/2005	09:39	0.0	1.7	18.5	79.8	0.0	-
79M	02/08/2005	10:42	0.0	1.9	18.2	79.9	0.0	-
79M	02/15/2005	11:35	0.0	5.5	14.7	79.8	0.0	-
79M	02/21/2005	10:59	0.0	12.5	6.4	81.1	0.0	-
79M	03/02/2005	10:33	0.0	2.2	17.2	80.6	0.0	-
79M	03/08/2005	09:13	0.0	5.2	14.4	80.4	0.0	-
79M	03/15/2005	08:59	0.0	3.0	16.7	80.3	0.0	-
79M	03/22/2005	10:14	0.0	3.3	16.1	80.6	0.0	-
79M	03/29/2005	10:43	0.0	4.1	15.2	80.7	0.0	-
80M	01/04/2005	10:23	0.0	0.0	20.4	79.6	0.0	-
80M	01/11/2005	10:43	0.0	0.1	20.9	79.0	0.0	-
80M	01/20/2005	10:41	0.0	0.2	20.0	79.8	0.0	-
80M	01/26/2005	11:52	0.0	0.1	20.0	79.9	0.0	-
80M	02/01/2005	09:42	0.0	0.9	19.2	79.9	0.0	-
80M	02/08/2005	10:45	0.0	1.0	19.2	79.8	0.0	-

Hewitt Pit Probe Monitoring Data - 01/01/2005 through 03/31/2005

Name	Date	Time	Methane (% by vol)	Carbon Dioxide (% by vol)	Oxygen (% by vol)	Balance Gas (% by vol)	Static Press (Inch H2O)	Comments
80M	02/15/2005	11:38	0.0	1.0	19.1	79.9	0.0	-
80M	02/21/2005	11:02	0.0	1.1	16.9	82.0	0.0	-
80M	03/02/2005	10:36	0.0	0.7	19.2	80.1	0.0	-
80M	03/08/2005	09:16	0.0	0.1	19.6	80.3	0.0	-
80M	03/15/2005	09:02	0.0	0.0	19.6	80.4	0.0	-
80M	03/22/2005	10:17	0.0	1.0	18.7	80.3	0.0	-
80M	03/29/2005	10:48	0.0	0.7	19.1	80.2	0.0	-
81M	01/04/2005	10:25	0.0	0.3	20.7	79.0	0.0	-
81M	01/11/2005	10:45	0.0	0.3	20.5	79.2	0.0	-
81M	01/20/2005	10:43	0.0	0.4	20.4	79.2	0.0	-
81M	01/26/2005	11:54	0.0	0.1	20.3	79.6	0.0	-
81M	02/01/2005	09:44	0.0	0.2	20.4	79.4	0.0	-
81M	02/08/2005	10:47	0.0	0.1	20.5	79.4	0.0	-
81M	02/15/2005	11:40	0.0	0.4	20.4	79.2	0.0	-
81M	02/21/2005	11:04	0.0	0.3	20.2	79.5	0.0	-
81M	03/02/2005	10:37	0.0	0.0	20.3	79.7	0.0	-
81M	03/08/2005	09:18	0.0	0.2	20.2	79.6	0.0	-
81M	03/15/2005	09:03	0.0	0.2	20.2	79.6	0.0	-
81M	03/22/2005	10:19	0.0	0.7	19.5	79.8	0.0	-
81M	03/29/2005	10:50	0.0	0.2	20.0	79.8	0.0	-
FLARE	01/04/2005	09:44	28.4	27.3	2.5	41.8	9.7	-
FLARE	01/11/2005	09:35	20.7	24.5	2.7	52.1	8.4	-
FLARE	01/20/2005	09:39	24.6	25.7	2.4	47.3	9.2	-
FLARE	02/01/2005	08:53	14.6	22.0	4.3	59.1	10.1	-
FLARE	02/08/2005	09:56	17.3	22.0	4.4	56.3	10.1	-
FLARE	02/15/2005	10:52	16.9	23.7	3.9	55.5	10.0	-
FLARE	02/21/2005	09:52	27.5	27.6	1.9	43.0	8.4	-
FLARE	03/02/2005	09:08	22.3	23.2	4.5	50.0	8.8	-
FLARE	03/08/2005	07:45	18.4	22.4	4.5	54.7	9.4	-
FLARE	03/15/2005	08:36	16.1	22.1	4.8	57.0	9.7	-
FLARE	03/22/2005	07:34	18.7	22.1	4.6	54.6	9.4	-
FLARE	03/29/2005	09:39	19.3	23.0	4.2	53.5	10.6	-



REV.	DATE	DESCRIPTION	BY

ENGINEER: GC ENVIRONMENTAL, INC.
1230 NORTH JEFFERSON ST. SUITE J
ANAHEIM, CA. 92807 (714) 632-8969

PROJECT LOCATION: HEWITT PIT LANDFILL
N. HOLLYWOOD, CA

DESCRIPTION: GAS MONITORING PROBE LOCATIONS

PROJECT NO.: 2202 | REV. DWG.: | FILE NAME:

SHEET: FIG-1