



VAC

1651 Alvarado Street, San Leandro, CA 94577-2636
Tel (510) 351-8900 □ Fax (510) 351-0221

ENVIRONMENTAL
PROTECTION
97 JUL 10 AM 9:14

June 10, 1997

Ms. Madhulla Logan
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Way Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Residual Management Plan
Former Chevron Service Station #9-4816
301 14th Street
Oakland, CA

Dear Ms. Logan:

As per our discussion, we are presenting a revised table of site threshold limits for continued monitoring at the above site. The table now shows onsite threshold limits of calculated cleanup target levels protective of human health from volatilization of dissolved benzene to indoor air. These values are site specific target levels (SSTLs) generated using RBCA software developed by Groundwater Services, Inc. Printouts are attached. The representative concentration is based on the groundwater monitoring results from the onsite wells C-1 through C-5 and CR-1, for the fourth quarter of 1996. There were several changes made to the default values of the software: 1) the California MCL for dissolved benzene of 1 ppb replaced the federal standard of 5 ppb; 2) the federal slope factor of 0.29 was replaced with the California value of 0.1 for benzene; and, 3) the air exchange rate for commercial buildings was modified from twenty exchanges per day to two exchanges per hour, as specified in the Uniform Building Code, Section 1205(c).

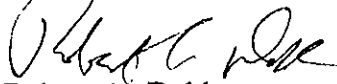
Utilizing a target risk of 1×10^{-5} , the modelled SSTL for volatilization of benzene to indoor air onsite is 2,600 ppb. As per the proposed monitoring plan, if the average concentration of the onsite wells exceed the SSTL during a sampling event, the ACHCS will be notified, the well(s) will be resampled and the site reevaluated if necessary. If biodegradation is verified and threshold limits are not approached over



the next three years, all wells will be destroyed and the site will be closed to further environmental activities.

If you have any questions or comments, please call me at (510) 351-8900.

Sincerely,
Terra Vac Corporation



Robert A. Dahl
Project Manager

cc: Phil Briggs, Chevron
Jennifer Eberle, ACHCS
30-0220.10

Table 2
 Management Plan Threshold Limits and Sampling Schedule
 Former Chevron Station 9-4816
 301 14th Street
 Oakland, California

Well ID	Benzene Concentration 12/12/96 (ppb)	Average Benzene Concentrations, 1996 (ppb)	Benzene Concentration Threshold Limit (ppb)	Monitor & Sample	Sampling Interval
Biodegradation Indicator Wells					
C-1	1.2	2	*2,600	Yes	Semi-annually
C-2	1.2	2	*2,600	Yes	Semi-annually
C-3	100	42	*2,600	Yes	Semi-annually
CR-1	850	475	*2,600	Yes	Semi-annually
Trigger Wells					
C-4	<0.5	<0.5	*2,600	Yes	Annually
C-5	3.0	1	*2,600	Yes	Annually
C-6	<0.5	<0.5	5	Yes	Annually
C-7	<0.5	<0.5	5	Yes	Annually
C-8	58	28	580	Yes	Annually
C-9	<0.5	<0.5	5	Yes	Annually
MW-10	<0.5	<0.5	5	Yes	Annually
MW-11	<0.5	<0.5	5	Yes	Annually
* 2,600 ppb is limit as an average for onsite wells CR-1 and C-1 to C-5					

RBCA SITE ASSESSMENT

Tier 2 Worksheet 9.3

Site Name: Former Chevron Station 9-4816
 Site Location: 301 14th Street, Oakland, CA

Completed By: CMG
 Date Completed: 3/17/1997

1 OF 1

GROUNDWATER SSTL VALUES

Target Risk (Class A & B) 1.0E-5
 Target Risk (Class C) 1.0E-5
 Target Hazard Quotient 1.0E+0

MCL exposure limit?
 PEL exposure limit?

Calculation Option: 2

A

SSTL Results For Complete Exposure Pathways ("X" if Complete)

CONSTITUENTS OF CONCERN		Representative Concentration	Groundwater Ingestion			Groundwater Volatilization to Indoor Air		Groundwater Volatilization to Outdoor Air		Applicable SSTL	SSTL Exceeded ?	Required CRF
CAS No.	Name	(mg/L)	Residential: (on-site)	Commercial 2000 feet	Regulatory(MCL): 2000 feet	Residential: (on-site)	Commercial: (on-site)	Residential (on-site)	Commercial (on-site)	(mg/L)	"■" If yes	Only if "yes" left
71-43-2	Benzene	1.6E-1	NA	>Sol	2.0E+2	NA	2.6E+0	NA	NA	2.6E+0	<input type="checkbox"/>	<1

RBCA TIER 1/TIER 2 EVALUATION

Output Table 1

Site Name: Former Chevron Station 9-4818b Identification: 30-0220
 Site Location: 301 14th Street, Oakland, CA Date Completed: 3/17/97
 Completed By: CMG

Software: GSI RBCA Spreadsheet
 Version: v 1.0

NOTE: values which differ from Tier 1 default values are shown in bold italics and underlined.

DEFAULT PARAMETERS

Exposure Parameter	Definition (Units)	Residential			Commercial/Industrial	
		Adult	(1-6yrs)	(1-16 yrs)	Chronic	Constructn
ATc	Averaging time for carcinogens (yr)	70				
ATn	Averaging time for non-carcinogens (yr)	30	6	16	25	1
BW	Body Weight (kg)	70	15	35	70	
ED	Exposure Duration (yr)	30	6	16	25	1
EF	Exposure Frequency (days/yr)	350			250	180
EF _{Derm}	Exposure Frequency for dermal exposure	350			250	
IR _{gw}	Ingestion Rate of Water (l/day)	2			1	
IR _s	Ingestion Rate of Soil (mg/day)	100	200		50	100
IR _{adj}	Adjusted soil ing rate (mg-yr/kg-d)	1.1E+02			9.4E+01	
IR _{a in}	Inhalation rate indoor (m ³ /day)	15			20	
IR _{a out}	Inhalation rate outdoor (m ³ /day)	20			20	10
SA	Skin surface area (dermal) (cm ²)	5.8E+03		2.0E+03	5.8E+03	5.8E+03
SA _{adj}	Adjusted dermal area (cm ² -yr/kg)	2.1E+03			1.7E+03	
M	Soil to Skin adherence factor	1				
AAFs	Age adjustment on soil ingestion	FALSE			FALSE	
AAFd	Age adjustment on skin surface area	FALSE			FALSE	
tox	Use EPA tox data for air (or PEL based)	TRUE				
gwMCL?	Use MCL as exposure limit in groundwater?	TRUE				

Surface Parameters	Definition (Units)	Commercial/Industrial		
		Residential	Chronic	Construction
t	Exposure duration (yr)	30	25	1
A	Contaminated soil area (cm ²)			
W	Length of affected soil parallel to wind (cm)			
W _{gw}	Length of affected soil parallel to groundwater (cm)			
U _{air}	Ambient air velocity in mixing zone (cm/s)	2.3E+02		
delta	Air mixing zone height (cm)	2.0E+02		
L _{ss}	Definition of surficial soils (cm)			
Pe	Particulate areal emission rate (g/cm ² /s)	2.2E-10		

Groundwater Parameters	Definition (Units)	Value
delta gw	Groundwater mixing zone depth (cm)	2.0E+02
I	Groundwater infiltration rate (cm/yr)	3.0E+01
U _{gw}	Groundwater Darcy velocity (cm/yr)	<u>1.8E+03</u>
U _{gw tr}	Groundwater Transport velocity (cm/yr)	<u>4.7E+03</u>
Ks	Saturated Hydraulic Conductivity (cm/s)	2.8E-03
grad	Groundwater Gradient (cm/cm)	2.0E-02
Sw	Width of groundwater source zone (cm)	9.1E+02
Sd	Depth of groundwater source zone (cm)	1.5E+02
BC	Biodegradation Capacity (mg/L)	
BIO?	Is Bioattenuation Considered	TRUE
phi eff	Effective Porosity in Water-Bearing Unit	3.8E-01
foe sat	Fraction organic carbon in water-bearing unit	1.0E-03

Matrix of Exposed Persons to Complete Exposure Pathways	Residential		Commercial/Industrial	
	Chronic	Constructn	Chronic	Constructn
Groundwater Pathways:				
GW i	Groundwater Ingestion	FALSE		TRUE
GW v	Volatilization to Outdoor Air	FALSE		FALSE
GW b	Vapor Intrusion to Buildings	FALSE		TRUE
Soil Pathways				
S v	Volatiles from Subsurface Soils	FALSE		FALSE
SS v	Volatiles and Particulate Inhalation	FALSE		FALSE
SS d	Direct Ingestion and Dermal Contact	FALSE		FALSE
S l	Leaching to Groundwater from all Soils	FALSE		FALSE
S b	Intrusion to Buildings - Subsurface Soils	FALSE		FALSE

Soil Parameters	Definition (Units)	Value
hc	Capillary zone thickness (cm)	<u>4.6E+01</u>
hv	Vadose zone thickness (cm)	<u>5.8E+02</u>
rho	Soil density (g/cm ³)	1.7
foe	Fraction of organic carbon in vadose zone	0.01
phi	Soil porosity in vadose zone	0.38
L _{gw}	Depth to groundwater (cm)	<u>6.2E+02</u>
Ls	Depth to top of affected soil (cm)	
L _{subs}	Thickness of affected subsurface soils (cm)	
pH	Soil/groundwater pH	6.5
phi w	Volumetric water content	capillary: 0.342, vadose: 0.12, foundation: 0.12
phi a	Volumetric air content	0.038, 0.26, 0.26

Matrix of Receptor Distance and Location on- or off-site	Residential		Commercial/Industrial		
	Distance	On-Site	Distance	On-Site	
GW	Groundwater receptor (cm)	6.1E+04	FALSE	6.1E+04	FALSE
S	Inhalation receptor (cm)		FALSE		FALSE

Building Parameters	Definition (Units)	Residential	Commercial
		Commercial	Construction
Lb	Building volume/area ratio (cm)	2.0E+02	3.0E+02
ER	Building air exchange rate (s ⁻¹)	1.4E-04	<u>5.6E-04</u>
L _{crk}	Foundation crack thickness (cm)	1.5E+01	
eta	Foundation crack fraction	0.01	

Matrix of Target Risks	Definition (Units)	Individual	Cumulative
		Individual	Cumulative
TR _{ab}	Target Risk (class A&B carcinogens)	<u>1.0E-05</u>	
TR _c	Target Risk (class C carcinogens)	1.0E-05	
THQ	Target Hazard Quotient	1.0E+00	
Opt	Calculation Option (1, 2, or 3)	2	
Tier	RBCA Tier	2	

Dispersive Transport Parameters	Definition (Units)	Residential	Commercial
		Residential	Commercial
Groundwater			
ax	Longitudinal dispersion coefficient (cm)		6.1E+03
ay	Transverse dispersion coefficient (cm)		2.0E+03
az	Vertical dispersion coefficient (cm)		3.0E+02
Vapor			
dcy	Transverse dispersion coefficient (cm)		
dcz	Vertical dispersion coefficient (cm)		

RBCA CHEMICAL DATABASE

Physical Property Data

CAS Number	Constituent	type	Molecular Weight		Diffusion Coefficients				log (Koc) or log(Kd)		Henry's Law Constant		Pressure		Solubility				
			(g/mole)	ref	in air (cm ² /s)	re	in water (cm ² /s)	re	(l/kg)	ref	(atm-m ³)	(unitless)	(@ 20 - 25 C) (mm Hg)	ref	Pure	(mg/l)	Pure	acid pKa	base pKb
71-43-2	Benzene	A	78.1	5	9.30E-02	A	1.10E-05	A	1.58	A	5.29E-03	2.20E-01	A	9.52E+01	4	1.75E+03	A		

Site Name: Former Chevron Sta Site Location: 301 14th Street, Oa Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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RBCA CHEMICAL DATABASE

Toxicity Data

CAS Number	Constituent	Reference Dose (mg/kg/day)				Slope Factors 1/(mg/kg/day)				EPA Weight of Evidence	Is Constituent Carcinogenic ?
		Oral RfD_oral	ref	Inhalation RfD_inhal	re	Oral SF_oral	ref	Inhalation SF_inhal	ref		
71-43-2	Benzene	-	R	1.70E-03	R	1.00E-01	A	1.00E-01	A	A	TRUE

Site Name: Former Chevr Site Location: 301 14th Street, Oakla Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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RBCA CHEMICAL DATABASE

Miscellaneous Chemical Data

CAS Number	Constituent	Maximum Contaminant Level		Permissible Exposure Limit PEL/TLV (mg/m3)	ref	Relative Absorption Factors		Detection Limits			Half Life (First-Order Decay) (days)		ref	
		MCL (mg/L)	reference			Oral	Dermal	Groundwater (mg/L)	Soil (mg/kg)	ref	re	Saturated		Unsaturated
71-43-2	Benzene	1.00E-03	52 FR 25690	3.20E+00	OSHA	1	0.5	0.002	C	0.005	S	720	720	H

Site Name: Former Chevr Site Location: 301 14th Street, Oakland, CA

Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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FAX

We're gaining new ground.

Date: 7/8/97

Number of pages including cover sheet: 9

To: Jennifer Eberle

Phone: _____

Fax phone: 337-9335

CC: _____

From: Tony Dahl

SAN LEANDRO OFFICE

1651 ALVARADO STREET

SAN LEANDRO, CA 94577

Phone: (510) 351-8900

Fax phone: (510) 351-0221

REMARKS: Urgent For your review Reply ASAP Please comment

This is what I thought I faxed as a draft to madhella before but must have slipped in a partially revised table.



1651 Alvarado Street, San Leandro, CA 94577-2636
Tel (510) 351-8900 □ Fax (510) 351-0221

June 10, 1997

Ms. Madhulla Logan
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Way Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Residual Management Plan
Former Chevron Service Station #9-4816
301 14th Street
Oakland, CA

Dear Ms. Logan:

As per our discussion, we are presenting a revised table of site threshold limits for continued monitoring at the above site. The table now shows onsite threshold limits of calculated cleanup target levels protective of human health from volatilization of dissolved benzene to indoor air. These values are site specific target levels (SSTLs) generated using RBCA software developed by Groundwater Services, Inc. Printouts are attached. The representative concentration is based on the groundwater monitoring results from the onsite wells C-1 through C-5 and CR-1, for the fourth quarter of 1996. There were several changes made to the default values of the software: 1) the California MCL for dissolved benzene of 1 ppb replaced the federal standard of 5 ppb; 2) the federal slope factor of 0.29 was replaced with the California value of 0.1 for benzene; and, 3) the air exchange rate for commercial buildings was modified from twenty exchanges per day to two exchanges per hour, as specified in the Uniform Building Code, Section 1205(c).

Utilizing a target risk of 1×10^{-5} , the modelled SSTL for volatilization of benzene to indoor air onsite is 2,600 ppb. As per the proposed monitoring plan, if the average concentration of the onsite wells exceed the SSTL during a sampling event, the ACHCS will be notified, the well(s) will be resampled and the site reevaluated if necessary. If biodegradation is verified and threshold limits are not approached over

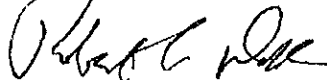


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the next three years, all wells will be destroyed and the site will be closed to further environmental activities.

If you have any questions or comments, please call me at (510) 351-8900.

Sincerely,
Terra Vac Corporation



Robert A. Dahl
Project Manager

cc: Phil Briggs, Chevron
Jennifer Eberle, ACHCS
30-0220.10



Table 2
 Management Plan Threshold Limits and Sampling Schedule
 Former Chevron Station 9-4816
 301 14th Street
 Oakland, California

Management Plan Threshold Limits and Sampling Schedule					
Biodegradation Indicator Wells					
C-1	1.2	2	*2,600	Yes	Semi-annually
C-2	1.2	2	*2,600	Yes	Semi-annually
C-3	100	42	*2,600	Yes	Semi-annually
CR-1	850	475	*2,600	Yes	Semi-annually
Trigger Wells					
C-4	<0.5	<0.5	*2,600	Yes	Annually
C-5	3.0	1	*2,600	Yes	Annually
C-6	<0.5	<0.5	5	Yes	Annually
C-7	<0.5	<0.5	5	Yes	Annually
C-8	58	28	580	Yes	Annually
C-9	<0.5	<0.5	5	Yes	Annually
MW-10	<0.5	<0.5	5	Yes	Annually
MW-11	<0.5	<0.5	5	Yes	Annually
* 2,600 ppb is limit as an average for onsite wells CR-1 and C-1 to C-5					

RBCA SITE ASSESSMENT

Trer 2 Worksheet 9.3

Site Name: Former Chevron Station 9-4B16
 Site Location: 301 14th Street, Oakland, CA

Completed By: CMG
 Date Completed: 3/17/1997

1 OF 1

GROUNDWATER SSTL VALUES

Target Risk (Class A & B) 1.0E-5
 Target Risk (Class C) 1.0E-5
 Target Hazard Quotient 1.0E+0

MCL exposure limit?
 PEL exposure limit?

Calculation Option: 2

A

SSTL Results For Complete Exposure Pathways ("x" if Complete)

CONSTITUENTS OF CONCERN		Representative Concentration	Groundwater Ingestion			Groundwater Volatilization to Indoor Air		Groundwater Volatilization to Outdoor Air		Applicable SSTL	SSTL Exceeded ?	Required CRF
CAS No.	Name	(mg/L)	Residential: (on-site)	Commercial: 2000 feet	Regulatory(MCL): 2000 feet	Residential: (on-site)	Commercial: (on-site)	Residential (on-site)	Commercial (on-site)	(mg/L)	<input checked="" type="checkbox"/> If yes	Only if "yes" left
71-43-2	Benzene	1.6E-1	NA	>Sol	2.0E+2	NA	2.6E+0	NA	NA	2.6E+0	<input type="checkbox"/>	<1

RBCA TIER 1/TIER 2 EVALUATION

Output Table 1

Site Name Former Chevron Station 9-4818b Identification 30-0220
 Site Location 301 14th Street, Oceanside, CA Date Completed 3/17/97
 Compiled By CMG

Software GSI RBCA Spreadsheet
 Version v 1.0

NOTE: values which differ from Tier 1 default values are shown in bold italics and underlined.

DEFAULT PARAMETERS

Exposure Parameter	Definition (Units)	Residential			Commercial/Industrial	
		Adult	(1-6yrs)	(1-16 yrs)	Chronic	Constructn
ATc	Averaging time for carcinogens (yr)	70				
ATn	Averaging time for non-carcinogens (yr)	30	6	16	25	1
BW	Body Weight (kg)	70	15	35	70	
ED	Exposure Duration (yr)	30	6	16	25	
EF	Exposure Frequency (days/yr)	350			250	180
EF.Derm	Exposure Frequency for dermal exposure	350			250	
IRgw	Ingestion Rate of Water (l/day)	2				
IRs	Ingestion Rate of Soil (mg/day)	100	200		50	100
IRadj	Adjusted soil ing. rate (mg-yr/kg-d)	1.1E+02			9.4E+01	
IRa.in	Inhalation rate indoor (m ³ /day)	15			20	
IRa.out	Inhalation rate outdoor (m ³ /day)	20			20	10
SA	Skin surface area (dermal) (cm ²)	5.8E+03		2.0E+03	5.8E+03	5.8E+03
SAadj	Adjusted dermal area (cm ² -yr/kg)	2.1E+03			1.7E+03	
M	Soil to Skin adherence factor	1				
AAFs	Age adjustment on soil ingestion	FALSE			FALSE	
AAFd	Age adjustment on skin surface area	FALSE			FALSE	
tox	Use EPA tox data for air (or PEL based)	TRUE				
gwMCL?	Use MCL as exposure limit in groundwater?	TRUE				

Matrix of Exposed Persons to Complete Exposure Pathways	Residential		Commercial/Industrial	
	Chronic	Constructn	Chronic	Constructn
Groundwater Pathways:				
GW.i	Groundwater Ingestion	FALSE	TRUE	
GW.v	Volatilization to Outdoor Air	FALSE	FALSE	
GW.b	Vapor Intrusion to Buildings	FALSE	TRUE	
Soil Pathways				
S.v	Volatiles from Subsurface Soils	FALSE	FALSE	
SS.v	Volatiles and Particulate Inhalation	FALSE	FALSE	FALSE
SS.d	Direct Ingestion and Dermal Contact	FALSE	FALSE	FALSE
S.l	Leaching to Groundwater from all Soils	FALSE	FALSE	
S.b	Intrusion to Buildings - Subsurface Soils	FALSE	FALSE	

Matrix of Receptor Distance and Location on- or off-site	Residential		Commercial/Industrial		
	Distance	On-Site	Distance	On-Site	
GW	Groundwater receptor (cm)	6.1E+04	FALSE	6.1E+04	FALSE
S	Inhalation receptor (cm)		FALSE		FALSE

Matrix of Target Risks	Residential	
	Individual	Cumulative
TRab	Target Risk (class A&B carcinogens)	<u>1.0E-05</u>
TRc	Target Risk (class C carcinogens)	1.0E-05
TRQ	Target Hazard Quotient	1.0E+00
Opt	Calculation Option (1, 2, or 3)	2
Tier	RBCA Tier	2

Surface Parameters	Definition (Units)	Commercial/Industrial		
		Residential	Chronic	Construction
t	Exposure duration (yr)	30	25	1
A	Contaminated soil area (cm ²)			
W	Length of affected soil parallel to wind (cm)			
W.gw	Length of affected soil parallel to groundwater (cm)			
Uair	Ambient air velocity in mixing zone (cm/s)	2.3E+02		
delta	Air mixing zone height (cm)	2.0E+02		
Lss	Definition of surficial soils (cm)			
Pe	Particulate areal emission rate (g/cm ² /s)	2.2E-10		

Soil	Definition (Units)	Value		
		capillary	vadose	foundation
hc	Capillary zone thickness (cm)	<u>4.6E+01</u>		
hv	Vadose zone thickness (cm)	<u>5.6E+02</u>		
rho	Soil density (g/cm ³)	1.7		
foc	Fraction of organic carbon in vadose zone	0.01		
phi	Soil porosity in vadose zone	0.38		
Lgw	Depth to groundwater (cm)	<u>6.2E+02</u>		
Ls	Depth to top of affected soil (cm)			
Lsubs	Thickness of affected subsurface soils (cm)	6.5		
pH	Soil/groundwater pH			
phi.w	Volumetric water content	0.342	0.12	0.12
phi.a	Volumetric air content	0.038	0.26	0.26

Building	Definition (Units)	Residential	Commercial
		Distance	On-Site
Lb	Building volume/area ratio (cm)	2.0E+02	3.0E+02
ER	Building air exchange rate (s ⁻¹)	1.4E-04	<u>5.6E-04</u>
Lcrk	Foundation crack thickness (cm)	1.5E+01	
eta	Foundation crack fraction	0.01	

Dispersive Transport Parameters	Definition (Units)	Residential	Commercial
		Distance	On-Site
Groundwater			
ax	Longitudinal dispersion coefficient (cm)		6.1E+03
ay	Transverse dispersion coefficient (cm)		2.0E+03
az	Vertical dispersion coefficient (cm)		3.0E+02
Vapor			
dcy	Transverse dispersion coefficient (cm)		
dcz	Vertical dispersion coefficient (cm)		

RBCA CHEMICAL DATABASE

Physical Property Data

Vapor

CAS Number	Constituent	type	Molecular Weight (g/mole) MW	ref	Diffusion Coefficients				log (Koc) or log(Kd) (@ 20 - 25 C) (l/kg)		Henry's Law Constant (@ 20 - 25 C) (atm-m ³) mol		Pressure (@ 20 - 25 C) (mm Hg) Pure		Solubility (@ 20 - 25 C) (mg/l) Pure		acid pKa	base pKb	ref
					Dair	re	Dwat	re	Koc	ref	mol	re	Component	ref	Component	ref			
71-43-2	Benzene	A	78.1	5	9.30E-02	A	1.10E-05	A	1.58	A	5.29E-03	2.20E-01	A	9.52E+01	4	1.75E+03	A		

Site Name: Former Chevron Sta Site Location: 301 14th Street, Oa Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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RBCA CHEMICAL DATABASE

Toxicity Data

CAS Number	Constituent	Reference Dose (mg/kg/day)			Slope Factors 1/(mg/kg/day)			EPA Weight of Evidence	Is Constituent Carcinogenic ?		
		Oral RfD_oral	Inhalation ref RfD_inhal	Inhalation re	Oral SF_oral	Inhalation ref SF_inhal	Inhalation ref				
71-43-2	Benzene	-	R	1.70E-03	R	1.00E-01	A	1.00E-01	A	A	TRUE

Site Name: Former Chevrr Site Location: 301 14th Street, Oakla Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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04/08/97 11:29 FAX 510 351 0221

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RBCA CHEMICAL DATABASE

Miscellaneous Chemical Data

CAS Number	Constituent	Maximum Contaminant Level		Permissible Exposure Limit PEL/TLV		Relative Absorption Factors		Detection Limits			Half Life (First-Order Decay)		ref	
		MCL (mg/L)	reference	(mg/m3)	ref	Oral	Dermal	Groundwater (mg/L)	Soil (mg/kg)	Saturated	Unsaturated			
71-43-2	Benzene	1.00E-03	52 FR 25690	3.20E+00	OSHA	1	0.5	0.002	C	0.005	S	720	720	H

Site Name: Former Chevr Site Location: 301 14th Street, Oakland, CA

Completed By: CMG

Date Completed: 3/17/1997

Software version: v 1.0

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