

Sabra Ambrose
CalRecycle
432 Geranium Circle
Galt, CA 95632, CA 95814

03 March 2011

RE: North Port of Oakland

Work Order: 1100913

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 24-Feb-11 10:40 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Lisa Race

Laboratory Manager

TEL: (805) 922-4772

FAX: (805) 925-3376



CalRecycle

Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034

Galt, CA 95632 CA, 95814

Project Manager: Sabra Ambrose

Reported:

03-Mar-11 13:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VW-1	1100913-01	Air	18-Feb-11 10:07	24-Feb-11 10:40
MW-7	1100913-02	Air	18-Feb-11 10:15	24-Feb-11 10:40
VW-9	1100913-03	Air	18-Feb-11 10:35	24-Feb-11 10:40



CalRecycle 432 Geranium Circle Galt, CA 95632 CA, 95814 Project: North Port of Oakland

Project Number: 01-CR-0034 Project Manager: Sabra Ambrose **Reported:** 03-Mar-11 13:36

VW-1 1100913-01 (Air)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Oilfield E	nvironme	ental a	and Cor	nplian	ce			
Sulfur Compounds by EPA 15/16									
Hydrogen Sulfide (H2S)	ND	0.050	ppmv	T T T T T T T T T T T T T T T T T T T	A103067	24-Feb-11	24-Feb-11	EPA 15/16	
Volatile Organic Compounds by EP.	A Method TO-	-15							R-05
Acetone	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.	
Benzene	ND	10	H	#1 .	B	H	0	#1	
Benzyl chloride	ND	10	tt	0	\$ I	Ü	If		
Bromodichloromethane	ND	10	şI	н	0	11	Ħ	H	
Bromoform	ND	10	**	n	н	"	(1		
Bromomethane	ND	40	7 H	IS	Ħ	II	31		
1,3-Butadiene	ND	10	11	ti	f#	Ħ	U	H	
Carbon disulfide	ND	10	IP	17	"	В	it	11	
Carbon tetrachloride	ND	10	Ħ	Ħ	0	Ħ	n	If	
Chlorobenzene	ND	10	ti	0	it	0	ü	ţI	
Chloroethane	ND	10	11	tt	*1	н	ti		
Chloroform	ND	10	t#	ŧI	13	ti	u	н	
Chloromethane	ND	20	11	n	n	It	Ħ	ŧ	
Cyclohexane	ND	10	#1	Ħ	O.	ķi	Ħ	If	
Dibromochloromethane	ND	10	U	0	Ħ	U	0 .	41	
1,2-Dibromoethane (EDB)	ND	10	51	B	Ħ	н	Ħ	IJ	
1,2-Dichlorobenzene	ND	10	t#	#1	D	n	11	H	
1,3-Dichlorobenzene	ND	10	11	U	Ħ	65	ıı	#1	
1,4-Dichlorobenzene	ND	10	Ħ	н	8	¥	\$I	U	
Dichlorodifluoromethane	ND	10	11	#1	IF	0	Ü	Ħ	
1,1-Dichloroethane	ND	10	11	t)	#1	n	It	Ħ	
1,2-Dichloroethane	ND	10	ŧŝ	Ħ	U	ŧì	Ħ	Ħ	
1,1-Dichloroethene	ND	10	11	0	Ħ	B	B	Ħ	
cis-1,2-Dichloroethene	ND	10	*1	Ħ	Ħ	łı	Ħ	17	
trans-1,2-Dichloroethene	ND	10	t#	Ħ	ti	Ð	9	4	
1,2-Dichloropropane	ND	10	11	0	Ħ	и	Ħ	II.	
cis-1,3-Dichloropropene	ND	10	н	я	U	n	fi .	H	
trans-1,3-Dichloropropene	ND	10	11	U	Ħ	ŧř	tř	#	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	10	#1	н	\$1	#1	į I	t t	

Oilfield Environmental and Compliance

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432 Geranium Circle

Galt, CA 95632 CA, 95814

Project: North Port of Oakland

Project Number: 01-CR-0034

Project Manager: Sabra Ambrose

Reported: 03-Mar-11 13:36

VW-1 1100913-01 (Air)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
Oilfield Environmental and Compliance											

Volatile Organic Compounds by	y EPA Method TO-15								R-05
1,1-Difluoroethane	ND	20	ppbv	20	A103041	01-Маг-11	01-Маг-11	TO-15 mod.	
Diisopropyl Ether	ND	10	il.	31	#	#	B 7-74791-11	# #	
1,4-Dioxane	ND	10	11	tt	tı	n	ıı	ø	
Ethanol	ND	10	81	19	II	I)	ŀr	ti	
Ethyl Acetate	ND	10	81	Ħ	B	Ħ	11	ħ	
Ethylbenzene	ND	10	Ħ	##	II.	f2	51	H	
Ethyl t-Butyl Ether	ND	10	**	. 11	ч	q	19	II.	
4-Ethyltoluene	ND	10	11	11	ti	n	It	11	
Heptane	ND	10	11	H	α	Iŧ	ıı	11	
Hexachlorobutadiene	ND	10	74	**	It	"	ti	11	
Hexane	98	10	H ,	ti	B	Ħ	¥P	B	
2-Hexanone	ND	10	11	łı	Ħ	Ħ	0	H	
Isopropyl alcohol	ND	10	11	u	tt	17	в	n	
Methylene chloride	ND	10	21	II.	í†	If	Ħ	†1	
Methyl Ethyl Ketone	ND	10	Ħ	Ħ	l:	lt .	Ħ	n	
Methyl Isobutyl Ketone	ND	10	b y	**	11	ţı	11	te	
Methyl-t-butyl ether	ND	10	17	u	tl	1)	tt	It	
Propylene	ND	10	11	n	ŧI	11	It	Ħ	
Styrene	ND	10	Ħ	lt.	U	H	It	11	
t-Amyl Methyl Ether	ND	10	#1	If	0	tt .	ti	17	
t-Butyl alcohol	ND	10	н	br	tŧ	H	ti	0	
1,1,1,2-Tetrachloroethane	ND	10	18	п	H	N	1)	**	
1,1,2,2-Tetrachloroethane	ND	10	11	ti	17	ti	#	D.	
Tetrachloroethene (PCE)	ND	10	11	ŧŧ	ti	ti	17	If	
Tetrahydrofuran	ND	10	#1	tr	n	rt .	B	tr	
Toluene	ND	10	8)	H	(1	H	tt.	tı	
1,2,4-Trichlorobenzene	ND	10	11	11	ļŧ	ji .	†I	ŧŧ	
1,1,1-Trichloroethane	ND	10	111	11	11	ţi	ŧŧ	It.	
1,1,2-Trichloroethane	ND	10	11	n	11	11	II;	H	
Trichloroethene (TCE)	ND	10	#1	tt	U	ŧŧ	It	n	
Trichlorofluoromethane	ND	10	11	II	ıt	lt	н	Ħ	
1,1,2-Trichlorotrifluoroethane	ND	10	11	11	#	Ħ	Ħ	tt.	
1,2,4-Trimethylbenzene	ND	10	11	**	11	#	**	II.	
1,3,5-Trimethylbenzene	ND	10	**	H	11	si	If	ja .	
Vinyl acetate	ND	10	Ħ	B	u	It	H	а	
Vinyl chloride	. 17	10	н	"	H	It	u	ŧı	

Oilfield Environmental and Compliance

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432 Geranium Circle

Galt, CA 95632 CA, 95814

Project: North Port of Oakland

Project Number: 01-CR-0034

Project Manager: Sabra Ambrose

Reported: 03-Mar-11 13:36

D As

VW-1 1100913-01 (Air)

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1 ,		^ Limit							

Oilfield Environmental and Compliance

Volatile Organic Compounds by EI	A Method TO-15								K-05
Xylenes (total)	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.	
Surrogate: Dibromofluoromethane		136 %	49-15	1	u	n	a	"	
Surrogate: Toluene-d8		112%	37-186	9	"	"	r	tt .	
Surrogate: 4-Bromofluorobenzene		122 %	67-13	3	п	n	"	"	
Fixed Gases by ASTM 1946									
Oxygen	4.1	0.10	%V/V air	1	A103046	24-Feb-11	24-Feb-11	ASTM 1946	
Nitrogen	38	0.10	11	t?	n	0	U	u	
Carbon Dioxide	6.1	0.10	\$1	Ħ	11	#1	#1	н	
Carbon Monoxide	ND	0.10	11	H	11	U	19	9 .	
Methane	51	0.10	**	n	и	Ħ	*1	Ħ	

FAX: (805) 925-3376



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Analyte

432 Geranium Circle

Galt, CA 95632 CA, 95814

Project: North Port of Oakland

Dilution

Batch

Prepared

Analyzed

Project Number: 01-CR-0034

Project Manager: Sabra Ambrose

Reported: 03-Mar-11 13:36

Method

Notes

MW-7 1100913-02 (Air)

Units

Reporting Limit

Result

	Oilfield Environmental and Compliance									
Sulfur Compounds by EPA 15/16										
Hydrogen Sulfide (H2S)	ND	0.050	ppmv	1	A103067	24-Feb-11	24-Feb-11	EPA 15/16		
Volatile Organic Compounds by EPA	Method TO-15				-				R-05	
Acetone	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.		
Benzene	ND	10	ŧı	tt.	If	ŧi	Ħ	ti		
Benzyl chloride	ND	10	Ħ	Ħ	В	ħ	ši	tt		
Bromodichloromethane	ND	10	n	н	11	fr .	Ħ	tr		
Bromoform	ND	10	11	11	tt	It	11	Iŝ		
Bromomethane	ND	40	11	n	11	lf .	It	li .		
1,3-Butadiene	ND	10	Ħ	tt	It	Ħ	n	11		
Carbon disulfide	ND	10	H	12	1)	11	ţI	te		
Carbon tetrachloride	ND	10	11	н	М	H	17	łı		
Chlorobenzene	ND	10	Ir	Ħ	ti	I\$	ŧŧ			
Chloroethane	ND	10	11	†1	ŧŧ	Ħ	*	11		
Chloroform	ND	10	**	11	i †	Ħ	В	H		
Chloromethane	ND	20	#1	11	I#	Ħ	It	Ħ		
Cyclohexane	ND	10	11	tł.	It	Ħ	tt	15		
Dibromochloromethane	ND	10	**	li	ır	ti	ti	11		
1,2-Dibromoethane (EDB)	ND	10	H	13	Ħ	11	ŧĮ	ft		
1,2-Dichlorobenzene	ND	10	ff.	ti	11	19	11	#		
,3-Dichlorobenzene	ND	10	11	ti	17	I#	If	If		
,4-Dichlorobenzene	ND	10	21	it	st	19	H	н		
Dichlorodifluoromethane	ND	10	27	It	#	Ħ	h	H		
,1-Dichloroethane	ND	10	11	lr	н	19	H	и		
,2-Dichloroethane	ND	10	11	р	п	e	\$P	s)		
,1-Dichloroethene	ND	10	11	17	ŧŧ	B	tt.	17		
is-1,2-Dichloroethene	ND	10	**	ft.	"	Ħ	B	It .		
rans-1,2-Dichloroethene	ND	10	**	tr.	I#	Ħ	N			
,2-Dichloropropane	ND	10	Ħ	Ħ	B	ţ)	ti	71		
is-1,3-Dichloropropene	ND	10	11	н	Ħ	n	11	tt.		
rans-1,3-Dichloropropene	ND	10	11	11	t)	ıt.	11	"		
,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	10	11	\$7	0	t.	n	#		
,1-Difluoroethane	ND ND	20	**				tt.	11		
3 A ANALOGA DEPLICAÇÃO	ND	2U		"	**	"	п	IF		

10

10

10

ND

ND

ND

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Diisopropyl Ether

1,4-Dioxane

Ethanol

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Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034 Project Manager: Sabra Ambrose **Reported:** 03-Mar-11 13:36

Galt, CA 95632 CA, 95814

MW-7

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

1100913-02 (Air)

Oilfield Environmental	I and Compliance
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Volatile Organic Compounds by E	PA Method TO-15								R-05
Ethyl Acetate	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.	
Ethylbenzene	ND	10	н	B	ti	tt	н	11	
Ethyl t-Butyl Ether	ND	10	ff	0	ši .	U	0	ŧŧ	
4-Ethyltoluene	ND	10	IP	Ħ	17	#1	#1	Ħ	
Heptane	ND	10	11	tt.	*1	II	п	п	
Hexachlorobutadiene	ND	10	11	ŧŧ	Ħ	U	0	tł.	
Hexane	43	10	11	Ħ	В	Ħ	Ħ	\$1	
2-Hexanone	ND	10	н	H	Ð	Ħ	и	п	
Isopropyl alcohol	ND	10	11	11	\$I	0	0	ti	
Methylene chloride	ND	10	11	#1	I#	Ħ	a	11	
Methyl Ethyl Ketone	ND	10	t#	17	а	Ħ	н	я	
Methyl Isobutyl Ketone	ND	10	**	tt	я	11	19	¥	
Methyl-t-butyl ether	ND	10	Ħ	 ∤ı	H	Ħ	Ħ	11	
Propylene	ND	10	H	tt	u	М	II	н	
Styrene	ND	10	11	n	41	0	H.	n .	
t-Amyl Methyl Ether	ND	10	17	SI SI	H	Ħ	‡I	Ħ	
t-Butyl alcohol	ND	10	н	B	Ħ	ft	tt	н	
1,1,1,2-Tetrachloroethane	ND	10	11	tt	и	U	0		
1,1,2,2-Tetrachloroethane	ND	10	11	B	. 0	41	41	**	
Tetrachloroethene (PCE)	ND	10	ff	Ħ	*1	If	Ħ	н	
Tetrahydrofuran	ND	10	18	#1	t#	#1	n	1)	
Toluene	ND	10	11	н	0	н	11	я	
1,2,4-Trichlorobenzene	ND	10	#I	ti	Ħ	tt	lt	H	
1,1,1-Trichloroethane	ND	10	tf.	\$1	Ħ	Ħ	11	n	
1,1,2-Trichloroethane	ND	10	tt	£†	0	Ħ	ц	11	
Trichloroethene (TCE)	ND	10	11	O.	\$1	Ü	O.	If	
Trichlorofluoromethane	ND	10	11	#1	t\$	‡I	n	u	
1,1,2-Trichlorotrifluoroethane	ND	10	н	R	n	и	11	4	
1,2,4-Trimethylbenzene	ND	10	#f	11	Ħ	11	U	R	
1,3,5-Trimethylbenzene	ND	10	D.	Ħ	II.	Ħ	Ħ	IJ	
Vinyl acetate	ND	10	11	£ŧ	11	н	11	41	
Vinyl chloride	ND	10	ft	0	#	0	H	I7	
Xylenes (total)	ND	10	19	#	H	Ħ	Ħ	. n	
Surrogate: Dibromofluoromethane		111%		151	"	tt	n	n	
Surrogate: Toluene-d8		113 %	37-	·180	n	"	"	"	
Surrogate: 4-Bromofluorobenzene		124 %	67-	-133	и	"	" .	"	

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Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034

Reported:

Galt, CA 95632 CA, 95814

Project Manager: Sabra Ambrose

03-Mar-11 13:36

MW-7 1100913-02 (Air)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Oilfield E	nvironm	ental a	nd Co	nplian	ce	··		
Fixed Gases by ASTM 1946									
Oxygen	11	0.10	%V/V air	1	A103046	24-Feb-11	24-Feb-11	ASTM 1946	
Nitrogen	54	0.10	11	Ħ	Ħ	н	11	IÈ	
Carbon Dioxide	6.3	0.10	**	11	n	11	n	If	
Carbon Monoxide	ND	0.10	t1	ţı	**	ti	*	IT	
Methane	27	0.10	rt .	tı	ti	11	ŧŧ	tr	



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Project: North Port of Oakland

432 Geranium Circle

Galt, CA 95632 CA, 95814

Sulfur Compounds by EPA 15/16

Project Number: 01-CR-0034

Project Manager: Sabra Ambrose

Reported: 03-Mar-11 13:36

VW-9 1100913-03 (Air)

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

Oilfield Environmental and Compliance

Hydrogen Sulfide (H2S)	ND	0.050	ppmv	1	A103067	24-Feb-11	24-Feb-11	EPA 15/16	
Volatile Organic Compounds by EPA	Method TO-15								R-05
Acetone	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.	
Benzene	ND	10	Ħ	0	Ħ	Ħ	11	ŧı	
Benzyl chloride	ND	10	18	41	Ħ	tt .	n	ŧ\$	
Bromodichloromethane	ND	10	H	H	i)	U	17	33	
Bromoform	ND	10	ŧì	*1	Ħ	#I	#1	Ħ	
Bromomethane	ND	40	Ħ	Ħ	t)	ŧ	It .	11	
1,3-Butadiene	ND	10	Ħ	0	Ħ	Ħ	tt	34	
Carbon disulfide	ND	10	11	ŧI	И	fi	\$I	ŧŧ	
Carbon tetrachloride	ND	10	н	11	n	4	Ħ	ŧ1	
Chlorobenzene	ND	10	*1	ŧ	#1	Ħ	H	я	
Chloroethane	ND	10	11	\$1	Ħ	H	н	12	
Chloroform	ND	10	67		n	U	n	#J	
Chloromethane	ND	20	81	n	11	**	#1	If	-
Cyclohexane	ND	10	17	н	I	Iš	R	n	
Dibromochloromethane	ND	10	87	0	31	, n	11	Ħ	
1,2-Dibromoethane (EDB)	ND	10	18	#1	11	н	н	0	
1,2-Dichlorobenzene	ND	10	н	#	U	U	0	Ħ	
1,3-Dichlorobenzene	ND	10	11	Ð	31	‡I	Ħ	Ħ	
1,4-Dichlorobenzene	ND	10	н	н	U	O	11	ti.	
Dichlorodifluoromethane	ND	10	#1	U	#I	Ħ	Ħ	я	
1,1-Dichloroethane	ND	10	Ħ	н	H	Ħ	Ħ	0	
1,2-Dichloroethane	ND	10	Ħ	0	u	U	0	#1	
1,1-Dichloroethene	ND	10	1t	Ħ	41	Ħ	\$1	£†	
cis-1,2-Dichloroethene	ND	10	t#	Ħ	0	ø	O	Ð	
trans-1,2-Dichloroethene	ND	10	\$1	ŋ	11	Ħ	Ħ	h	
1,2-Dichloropropane	ND	10	19	ŧı	Ħ	Ħ	It	Ð	
cis-1,3-Dichloropropene	ND	10	#	I)	n	U	U	ŧI	
trans-1,3-Dichloropropene	ND	10	Ħ	#1	ti .	41	#1	н	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	10	**	Ħ	u	19	H	U	
1,1-Difluoroethane	ND	20	#I	O	Ħ	¥I	ŧ	ŧI	
Diisopropyl Ether	ND	10	1t	Ħ	Ħ	bj	Ħ	If	
1,4-Dioxane	ND	10	17	B	u	U	•	0	
Ethanol	ND	10	n	n	#I	Ħ	Ħ	tt	

Oilfield Environmental and Compliance

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Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814

Project Number: 01-CR-0034 Project Manager: Sabra Ambrose Reported: 03-Mar-11 13:36

VW-9 1100913-03 (Air)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Oilfield E	nvironm	ental a	and Con	nplian	ce			

	Omicia Lii	VII OIIIII	Ciilai a	iia oc	unhuan	CE			
Volatile Organic Compounds by E	PA Method TO-15	5							R-05
Ethyl Acetate	ND	10	ppbv	20	A103041	01-Mar-11	01-Mar-11	TO-15 mod.	
Ethylbenzene	ND	10	11	13	ti	ti	ti	Ħ	
Ethyl t-Butyl Ether	ND	10	21	41	ŧı	ti	ŧr	B	-
4-Ethyltoluene	ND	10	ŧı	11	11	11	ŧı	B	
Heptane	ND	10	*1	ti	11	tz	ŧr	III	
Hexachlorobutadiene	ND	10	ŧi	41	n .	#	tr	H [*]	
Hexane	ND	10	*1	ŧŧ	ti	h	er	11	
2-Hexanone	ND	10	ŧf	Ħ	ti	12	B	It	
Isopropyl alcohol	ND	10	11	it.	tI	ff	Hr	jŧ.	
Methylene chloride	ND	10	*1	Ħ	9 /	h	11	t t	
Methyl Ethyl Ketone	ND	10	**	11	41	lt .	Ħ	It	
Methyl Isobutyl Ketone	ND	10	tt	Ħ	41	13	Ħ	H	
Methyl-t-butyl ether	ND	10	ŧf	H	Ħ	lt	Ħ	B	
Propylene	ND	10	#1	11	ti	н	Ħ	o	
Styrene	ND	10	#1	Ħ	ŧı	Ħ	Ħ	11	
-Amyl Methyl Ether	ND	10	*1	н	ti	N	tt	tł.	
t-Butyl alcohol	ND	10	**	it	+1	H	11	tt	
1,1,1,2-Tetrachloroethane	ND	10	#1	Ħ	Ħ	Ħ	Ħ	ti .	
1,1,2,2-Tetrachloroethane	ND	10	11	Ħ	tI	.#	lt	19	
Tetrachloroethene (PCE)	ND	10	11	H	Ħ	jt .	It	#	
Tetrahydrofuran	ND	10	11	H	Ħ	н	R	n	
Toluene	ND	10	Ħ	н	Ħ	15	I‡	n	
1,2,4-Trichlorobenzene	ND	10	11	l#	tt	H	11	TI.	
1,1,1-Trichloroethane	ND	10	11	Ił.	11	н	tt.	TI.	
1,1,2-Trichloroethane	ND	10	11	I†	ŧi	H	e	tt	
Trichloroethene (TCE)	ND	10	11	ıs	11	H	11	tı	
Trichlorofluoromethane	ND	10	11	. 14	jt.	tt	4	Ŧŧ	
1,1,2-Trichlorotrifluoroethane	ND	10	11	В	Ħ	D	n	ti	
1,2,4-Trimethylbenzene	ND	10	11	н	Ħ	12	11	tI	
1,3,5-Trimethylbenzene	ND	10	11	"	Ħ	17	11	ti	
Vinyl acetate	ND	10	11	11	tī	l?	It	0	
Vinyl chloride	ND	10	11	19	tī	В	H	Ð	
Xylenes (total)	ND	10	11	II.	łz	В	lt .	t)	
Surrogate: Dibromofluoromethane		139 %	49-1	51	"	"	"	"	
Surrogate: Toluene-d8		108 %	37-1	80	"	#	"	"	
Surrogate: 4-Bromofluorobenzene		123 %	67-1	33	н	Ħ	n	"	

Oilfield Environmental and Compliance

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CalRecycle

Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034

Reported:

Galt, CA 95632 CA, 95814

Project Manager: Sabra Ambrose

03-Mar-11 13:36

VW-9 1100913-03 (Air)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L	Oilfield E	nvironm	nental a	nd Co	mplian	ce			
Fixed Gases by ASTM 1946									
Oxygen	21	0.10	%V/V air	1	A103046	24-Feb-11	24-Feb-11	ASTM 1946	
Nitrogen	75	0.10	t s	Ħ	Ħ	n	11	17	
Carbon Dioxide	0.22	0.10	# J	t)	ti .	H	и	ti	
Carbon Monoxide	ND	0.10	fŧ	¥I	Ħ	0	n	Ħ	
Methane	1.7	0.10	fl	18	n	Ħ	It	u	



CalRecycle

Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814

Project Number: 01-CR-0034 Project Manager: Sabra Ambrose Reported: 03-Mar-11 13:36

Sulfur Compounds by EPA 15/16 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103067 - None-gases										
Blank (A103067-BLK1)				Prepared	& Analyze	d: 24-Feb	-11			
Hydrogen Sulfide (H2S)	ND	0.050	ppmv		T				****	
LCS (A103067-BS1)				Prepared	& Analyze	ed: 24-Feb	-11			
Hydrogen Sulfide (H2S)	40.4	0.050	ppmv	41.0		98.6	70-130			
Duplicate (A103067-DUP1)	Sou	arce: 110091.	3-03	Prepared	& Analyze	ed: 24-Feb	-11			
Hydrogen Sulfide (H2S)	ND	0.050	ppmv		ND			·····	30	



CalRecycle

Project: North Port of Oakland

432 Geranium Circle

Galt, CA 95632 CA, 95814

Project Number: 01-CR-0034

Project Manager: Sabra Ambrose

Reported: 03-Mar-11 13:36

Volatile Organic Compounds by EPA Method TO-15 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103041 - EPA TO-15 prep										
Blank (A103041-BLK1)				Prepared	& Analyz	ed: 01 - Ma	r-11			
Acetone	ND	0.50	ppbv							
Benzene	ND	0.50	0							
Benzyl chloride	ND	0.50	şı							
Bromodichloromethane	ND	0.50	0							
Bromoform	ND	0.50	0							
Bromomethane	ND	2.0	B							
1,3-Butadiene	ND	0.50	ţ1							
Carbon disulfide	ND	0.50	Ħ							
Carbon tetrachloride	ND	0.50	U							
Chlorobenzene	ND	0.50) 1							
Chloroethane	ND	0.50	H							
Chloroform	ND	0.50	a							
Chloromethane	ND	1.0	12							
Cyclohexane	ND	0.50	Ð							
Dibromochloromethane	ND	0.50	11							
1,2-Dibromoethane (EDB)	ND	0.50	O							
1,2-Dichlorobenzene	ND	0.50	н							
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50	11							
Dichlorodifluoromethane	ND	0.50	U				-			
1.1-Dichloroethane	ND	0.50	tf							
1,2-Dichloroethane	ND	0.50	ŋ							
1,1-Dichloroethene	ND	0.50	31							
cis-1,2-Dichloroethene	ND	0.50								
trans-1,2-Dichloroethene	ND	0.50	ŧI							
1,2-Dichloropropane	ND	0.50	11							
cis-1,3-Dichloropropene	ND	0.50	IJ							
trans-1,3-Dichloropropene	ND	0.50	н							
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.50	0							
1,1-Difluoroethane	ND	1.0	ŧí							
Diisopropyl Ether	ND	0.50								
1,4-Dioxane	ND	0.50	Ħ							
Ethanol	ND	0.50								
Ethyl Acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Ethyl t-Butyl Ether	ND	0.50								
4-Ethyltoluene	ND	0.50								
Heptane	ND	0.50								
Hexachlorobutadiene	ND	0.50								
Hexane	ND	0.50								

Oilfield Environmental and Compliance

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CalRecycle

Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034

Reported:

Galt, CA 95632 CA, 95814

Project Manager: Sabra Ambrose

03-Mar-11 13:36

Volatile Organic Compounds by EPA Method TO-15 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103041 - EPA TO-15 prep										
Blank (A103041-BLK1)	-			Prepared .	& Analyze	d: 01-Ma	r-11			
2-Hexanone	ND	0.50	ppbv							
Isopropyl alcohol	ND	0.50	11							
Methylene chloride	ND	0.50	11							
Methyl Ethyl Ketone	ND	0.50	11							
Methyl Isobutyl Ketone	ND	0.50	O.							
Methyl-t-butyl ether	ND	0.50	II .							
Propylene	ND	0.50	11							
Styrene	ND	0.50	l†							
t-Amyl Methyl Ether	ND	0.50	Ħ							
t-Butyl alcohol	ND	0.50	Iŧ							
1,1,1,2-Tetrachloroethane	ND	0.50	H							
1,1,2,2-Tetrachloroethane	ND	0.50	It							
Tetrachloroethene (PCE)	ND	0.50	17							
Tetrahydrofuran	ND	0.50	11							
Toluene	ND	0.50	Ħ							
1,2,4-Trichlorobenzene	ND	0.50	В							
1,1,1-Trichloroethane	ND	0.50	13							
1,1,2-Trichloroethane	ND	0.50	· 12							
Trichloroethene (TCE)	ND	0.50	*1							
Trichlorofluoromethane	ND	0.50	*1							
1,1,2-Trichlorotrifluoroethane	ND	0.50	11							
1,2,4-Trimethylbenzene	ND	0.50	*1							
1,3,5-Trimethylbenzene	ND	0.50	#1							
Vinyl acetate	ND	0.50	ŧ							
Vinyl chloride	ND	0.50	†I							
Xylenes (total)	ND	0.50	ŧŧ							
Surrogate: Dibromofluoromethane	36		"	25.0		144	49-151		······································	
Surrogate: Toluene-d8	27		"	25.0		109	37-180			

Surrogate: 4-Bromofluorobenzene

118

67-133

29

25.0



CalRecycle

Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814 Project Number: 01-CR-0034 Project Manager: Sabra Ambrose Reported:

03-Mar-11 13:36

Volatile Organic Compounds by EPA Method TO-15 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103041 - EPA TO-15 prep										
LCS (A103041-BS1)				Prepared	& Analyz	ed: 01-Ma	r-11			
Benzene	4.89	0.50	ppbv	4.05		121	61-130			
Bromomethane	4.31	2.0	O	3.70		116	11-195			
Carbon tetrachloride	5.04	0.50	\$1	4.75		106	62-144			
Chlorobenzene	4.64	0.50	Ħ	4.30		108	72-119			
Chloroform	5.00	0.50	ti	4.50		111	62-139			
1,2-Dibromoethane (EDB)	5.07	0.50	Ð	4.45		114	73-130			
1,3-Dichlorobenzene	4.46	0.50	н	4.15		107	51-141			
1,4-Dichlorobenzene	4.15	0.50	ŧŧ	4.20		98.8	43-146			
Dichlorodifluoromethane	4.62	0.50	ŧ	4.90		94.3	44-152			
1,2-Dichloroethane	4.90	0.50	Ħ	3.90		126	42-158			
1,1-Dichloroethene	5.02	0,50	R	4.45		113	54-133			
1,2-Dichloropropane	5.17	0.50	11	5.15		100	55-149			
Ethanol	4.49	0.50	#1	5.00		89.8	44-154			
Ethylbenzene	4.91	0.50	tf	4.55		108	69-129			
Methylene chloride	4.78	0.50	0	5.15		92.8	61-137			
Methyl-t-butyl ether	4.58	0.50	Ð	4.55		101	62-134			
Styrene	5.06	0.50	Ħ	4.15		122	60-130			
Tetrachloroethene (PCE)	4.49	0.50	Ħ	4.45		101	69-127			
Toluene	5.05	0.50	Ð	4.25		119	51-140			
1,1,1-Trichloroethane	4.92	0.50	Ħ	5.00		98.4	69-139			
Trichloroethene (TCE)	4.91	0.50	17	4.05		121	63-138			
Trichlorofluoromethane	5.25	0.50	ŧı	4.35		121	27-187			
Vinyl chloride	4.82	0.50	#1	4.30		112	34-166			
Xylenes (total)	14.1	0.50	í†	13.6		104	61-136			·····
Surrogate: Dibromofluoromethane	29		"	25.0		117	49-151			
Surrogate: Toluene-d8	26		. #	25.0		104	37-180			
Surrogate: 4-Bromofluorobenzene	30		"	25.0		119	67-133			

FAX: (805) 925-3376



CalRecycle

Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814 Project Number: 01-CR-0034 Project Manager: Sabra Ambrose Reported: 03-Mar-11 13:36

Volatile Organic Compounds by EPA Method TO-15 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103041 - EPA TO-15 prep										
LCS (A103041-BS2)				Prepared	& Analyze	ed: 01-Ma	r-11			
Diisopropyl Ether	4.54	0.50	ppbv	5.00		90.8	78-127			
Ethyl t-Butyl Ether	4.77	0.50	~ n	5.00		95.4	81-134			
t-Amyl Methyl Ether	4.17	0.50	Ħ	5.00		83.4	75-141			
t-Butyl alcohol	3.95	0.50	n	5.00		79.0	74-144			
Surrogate: Dibromofluoromethane	28		"	25.0	······································	113	49-151	**********	·	
Surrogate: Toluene-d8	27		"	25.0		108	37-180			
Surrogate: 4-Bromofluorobenzene	20		"	25.0		81.4	67-133			
Duplicate (A103041-DUP1)	So	urce: 110091	3-02	Prepared	& Analyze	ed: 01-Ma	r-11			R-05
Acetone	ND	10	ppbv		ND				25	
Benzene	ND	10	н		ND				25	
Benzyl chloride	ND	10	Ħ		ND				25	
Bromodichloromethane	ND	10	If		ND				25	
Bromoform	ND	10	н		ND				25	
Bromomethane	ND	40	н		ND				25	
1,3-Butadiene	ND	10	11		ND				25	
Carbon disulfide	ND	10	n		ND				25	
Carbon tetrachloride	ND	10	H		ND				25	
Chlorobenzene	ND	10	ti		ND				25	
Chloroethane	ND	10	u		ND				25	
Chloroform	ND	10	†1		ND				25	
Chloromethane	ND	20	ŧı		ND				25	
Cyclohexane	ND	10	ti		ND				25	
Dibromochloromethane	ND	10	Ħ		ND				25	
1,2-Dibromoethane (EDB)	ND	10	B		ND				25	
1,2-Dichlorobenzene	ND	10	В		ND				25	
1,3-Dichlorobenzene	ND	10	B		ND				25	
1,4-Dichlorobenzene	ND	10	e		ND				25	
Dichlorodifluoromethane	ND	10	B		ND				25	
1,1-Dichloroethane	ND	10	Ø		ND				25	
1,2-Dichloroethane	ND	10	U		ND				25	
1,1-Dichloroethene	ND	10	ti		ND				25	
cis-1,2-Dichloroethene	ND	10	ŧi		ND				25	
trans-1,2-Dichloroethene	ND	10	ti		ND				25	
1,2-Dichloropropane	ND	10	ŧ		ND				25	
cis-1,3-Dichloropropene	ND	10	12		ND				25	
trans-1,3-Dichloropropene	ND	10	*1		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	10	11		ND				25	
1,1-Difluoroethane	ND	20	R		ND				25	~
Diisopropyl Ether	ND	10	R		ND				25	
1.4-Dioxane	ND	10	If		ND				25	

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CalRecycle

Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814 Project Number: 01-CR-0034 Project Manager: Sabra Ambrose Reported:

03-Mar-11 13:36

Volatile Organic Compounds by EPA Method TO-15 - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Duplicate (A103041-DUP1)	Source	e: 1100913	3-02	Prepared & Analyzed: 01-Mar	÷11		R-0:
Ethanol	ND	10	ppbv	ND		25	
Ethyl Acetate	ND	10	U	ND		25	
Ethylbenzene	ND	10	ŧ	ND		25	
Ethyl t-Butyl Ether	ND	10	Ħ	ND		25	
4-Ethyltoluene	ND	10	H	ND		25	
Heptane	ND	10	t)	ND		25	
Hexachlorobutadiene	ND	10	ŧı	ND		25	
Hexane	43.2	10	B	42.6	1.40	25	
2-Hexanone	ND	10	ŧI	ND		25	
Isopropyl alcohol	ND	10	#1	ND		25	
Methylene chloride	ND	10	tr	ND		25	
Methyl Ethyl Ketone	ND	10	U	ND		25	
Methyl Isobutyl Ketone	ND	10	\$1	ND		25	
Methyl-t-butyl ether	ND	10	\$I	ND		25	
Propylene	ND	10	0	ND		25	
Styrene	ND	10	a	ND		25	
t-Amyl Methyl Ether	ND	10	n	ND		25	
t-Butyl alcohol	ND	10	e	ND		25	
1,1,1,2-Tetrachloroethane	ND	10	ŧ	ND		25	
1,1,2,2-Tetrachloroethane	ND	10	я	ND		25	
Tetrachloroethene (PCE)	ND	10	Ħ	ND		25	
Tetrahydrofuran	ND	10	ŧł	ND		25	
Toluene	ND	10	#1	ND		25	
1,2,4-Trichlorobenzene	ND	10	B	ND		25	
1,1,1-Trichloroethane	ND	10	Ü	ND		25	
1,1,2-Trichloroethane	ND	10	Ħ	ND		25	
Trichloroethene (TCE)	ND	10	11	ND		25	
Trichlorofluoromethane	ND	10	0	ND		25	
1,1,2-Trichlorotrifluoroethane	ND	10	Ħ	ND		25	
1,2,4-Trimethylbenzene	ND	10	Ħ	ND		25	
1,3,5-Trimethylbenzene	ND	10	0	ND		25	
Vinyl acetate	ND	10	Ħ	ND		25	
Vinyl chloride	ND	10	н	ND		25	
Xylenes (total)	ND	10	U	ND		25	
Surrogate: Dibromofluoromethane	28		ff	25.0 111	49-151		
Surrogate: Toluene-d8	28		"	25.0 112	37-180		
Surrogate: 4-Bromofluorobenzene	31		"	25.0 123	67-133		

Oilfield Environmental and Compliance

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CalRecycle

Project: North Port of Oakland

432 Geranium Circle Galt, CA 95632 CA, 95814 Project Number: 01-CR-0034 Project Manager: Sabra Ambrose **Reported:** 03-Mar-11 13:36

Fixed Gases by ASTM 1946 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A103046 - default air										
Blank (A103046-BLK1)				Prepared	& Analyze	ed: 24-Ma	r-11			
Oxygen	ND	0.10	%V/V air			.,		***************************************		
Nitrogen	ND	0.10	Iŧ							
Carbon Dioxide	ND	0.10	11							
Carbon Monoxide	ND	0.10	Ħ							
Methane	ND	0.10	Ħ							
LCS (A103046-BS1)				Prepared	& Analyze	ed: 24-Ma	r-11			
Oxygen	4.0	0.10	%V/V air	4.00		98.8	70-130			***************************************
Nitrogen	5.0	0.10	t†	5.00		99.4	70-130			
Carbon Dioxide	5.0	0.10	11	5.00		99.0	70-130			
Carbon Monoxide	5.0	0.10	11	5.00		101	70-130			
Methane	4.1	0.10	33	4.00		102	70-130			
Duplicate (A103046-DUP1)	So	urce: 110091	13-01	Prepared	& Analyze	ed: 24-Ma	r-11			
Oxygen	4.2	0.10	%V/V air		4.1			2.88	30	
Nitrogen	38	0.10	0		38			0.744	30	
Carbon Dioxide	6.0	0.10	Ħ		6.1			1.15	30	
Carbon Monoxide	ND	0.10	n		ND				30	
Methane	51	0.10	Ħ		51			0.175	30	



CalRecycle

R-05

Project: North Port of Oakland

432 Geranium Circle

Project Number: 01-CR-0034

Reported:

Galt, CA 95632 CA, 95814

Project Manager: Sabra Ambrose

03-Mar-11 13:36

Notes and Definitions

The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

307 Roemer Way Suite 300, Santa Maria CA 93454

Highway 33, McKittrick CA

CHAIN OF CUSTODY

phone: (805) 922-4772 fax: (805) 925-3376 www.oecusa.com phone: (661) 762-9143 Page Resources Kecoveru Project Name/#: Site: **Analysis Requested** Special Instructions: City/State/ZIP: E-mail: SEE BELOW 193 Fax: 916 3197419 85LOW Sampler: Sabra Andrew Report To: 55 Colt/LUFT EDF-EDD- Z Send report via- FAX- [7] PDF- D 10 Days-24 hr-ASAP-**Turnaround Time** 5 Days-72 hr-48 hr- | Date/Time # of Client Sample ID **OEC Sample ID** Matrix Sampled Cont 0EC 27 7-18-11 ALR 1100913-14 10:07 AM HO OLOI AA 0EC 035 2-18-11 ALR 24 AA 1010 O II 2-18-11 0EC 027 10:35 An All 34 AA 1010 018 Time: 12'34M comments/PO#: Glenn. Young@ calrecycle. ca. gov FAX 914 3770 7528 301D 1970 Relinguished By: Received By: Date: Time: Time: 1040 Relinquished By: sabra.ambrose@calrecycle.ca.go Time: 1040 Received By: Date: Time: Relinguished By: Date: FAX 916 319 7419 Time: Received By: Date:

OE C	SAMPLE REC		ENT: DEPT. OF RRY CAL RECYCL	E	EC ID #	: 1100913	Temp: ° C
COC RECEIV DATE/TIME:	2-24-11 16	40 RECEIPT DATE/TIN	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	/ 10:	50_	ŘÉF	RIGERATOR(8): <u>V R</u>
OEC Cour Delivery(Cour Samples R Samples R Samples I	Other than OEC Courier) Received on Ice Received Outside Temp. Range* Direct from field (Outside Temp) Irs Outside Drop-off [Brought Ins	COC document(s) Correct containers Container(s) intact Container label(s) OBC preservative	received with samples for analysis requested and in good condition consistent with COC added (**note std ID) n on sample label(s) ee of headspace			Custody Seals Method of Sh FedE) (**) OEC Pre	Samples / Coolers Intact / Broken* ipment & Tracking #(if applicable): 8746 /516 7289
CONTAINERS, COC CHANGES AND/OR CORRECTIONS CHANGES AUTHORIZED BY:							
OEC ID	Client ID ***If blank, refer to CoC	Container Description	Preservative	ResCl /pH	Matrix	Date/Time Sampled ***	Comments / Remarks / Condition Notes, Etc.
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