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SITE ASSESSMENT REPORT FOR CHARNOCK MTBE INVESTIGATION

March 30, 1998

Volume II of II
Appendix H

76 (TOSCO) STATION 4357
11280 National Boulevard
Los Angeles, California
File No. 96-042, PRP #16

Prepared For:

TOSCO MARKETING COMPANY

Prepared By:

ALTON GEOSCIENCE
25A Technology Drive
Irvine, California 92618

U.S. EPA Region 9 - Official File Copy
16-Report- 1480
4/9/98
Charnock and Arcadia MtBE Projects

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ALTON GEOSCIENCE

April 9, 1998

Tosco Marketing Company
555 Anton Boulevard
Costa Mesa, California 92626

ATTN: MR. MICHAEL VANDER PLAATS

SITE: 76 (TOSCO) STATION 4357
11280 NATIONAL BOULEVARD
LOS ANGELES, CALIFORNIA

FILE NUMBER 96-042, PRP SITE NO. 16
FILE NO. 900660061

RE: VOLUME II OF SITE ASSESSMENT REPORT FOR THE CHARNOCK MTBE INVESTIGATION

Dear Mr. Vander Plaats:

Enclosed are two copies of Volume II of the site assessment report for the Charnock methyl tertiary butyl ether (MTBE) investigation for the above referenced site. This volume contains Appendix H (LARWQCB Laboratory Report Forms) and a compact disk with copies of the text, tables, and figures generated for the report in Word, Excel, and AutoCAD formats. Volume I of this report (dated March 30, 1998) was previously submitted. If you have any questions or require additional information, please contact us at (714) 753-0101.

Sincerely,

ALTON GEOSCIENCE

Gil Fry

Gil Fry, RG
Associate, Irvine Operations

Enclosures

cc: Mr. David Bacharowski, LARWQCB (2 copies with enclosures)
Mr. Sean Condry, US EPA (2 copies with enclosures)
Ms. Denise Kruger, Southern California Water Company (1 copy with enclosure)
Mr. Rey Rodriguez, Utilities Division, City of Santa Monica (2 copies with enclosures)
Mr. Toby Moore, Mission Geoscience (1 copy with enclosure)
Mr. Jeffrey Dill, Tosco (1 copy with enclosure)

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25A Technology Drive, Suite 100
Irvine, California 92618
(714) 753-0101 • FAX (714) 753-0111

4/9/98

Charnock and Arcadia MtBE Projects

APPENDIX H

LARWQCB LABORATORY REPORT FORMS

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 02/02/98 To 02/02/98

Date(s) received: 02/02/98 To 02/02/98

Date(s) reported: 02/03/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	MB	MB	MB	MB	A2876-1
		CLIENT SAMPLE I.D.	--	--	--	--	B9-25.75
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	96	106	94	94	95
Trifluorotoluene (TFT)	100 ng	65-125	107	109	92	95	103

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	A2876-2	A2876-3	A2876-4	A2876-5	A2876-6
		CLIENT SAMPLE I.D.	B9-30.5	B9-35.5	B9-40.5	B9-45.5	B9-50.75
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND

Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	106	104	88	95	106
Trifluorotoluene (TFT)	100 ng	65-125	107	102	88	99	104

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	A2876-7	A2876-8	A2876-9	A2876-10	A2876-11
		CLIENT SAMPLE I.D.	B9-55.0	B9-60.25	B9-65.4	B9-70.25	B9-75.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	108	97	96	87	97
Trifluorotoluene (TFT)	100 ng	65-125	102	100	102	90	102

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	A2876-12	A2876-13	A2876-14	A2876-15	A2876-16
		CLIENT SAMPLE I.D.	B9-80.0	B9-85.0	B9-90.25	B9-95.0	B9-100.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	99	98	104	91	89
Trifluorotoluene (TFT)	100 ng	65-125	101	106	101	89	98

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	A2876-17	A2876-18	A2876-19	A2876-20	A2876-21
		CLIENT SAMPLE I.D.	B9-105.4	B9-110.0	B9-115.0	MW2-4.75	MW2-10.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	0.003	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	0.003	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	91	104	101	94	100
Trifluorotoluene (TFT)	100 ng	65-125	97	108	110	102	107

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	2-2-98
		LAB SAMPLE I.D.	A2876-22	A2876-23	A2876-24	A2876-25	A2876-26
		CLIENT SAMPLE I.D.	MW2-15.0	MW2-20.0	MW2-25.5	MW2-30.0	MW2-35.5
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND

Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	92	96	108	101	91
Trifluorotoluene (TFT)	100 ng	65-125	95	103	106	108	100

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-2-98	2-2-98	2-2-98	2-2-98	
		DATE EXTRACTED	2-2-98	2-2-98	2-2-98	2-2-98	
		LAB SAMPLE I.D.	A2876-27	A2876-28	A2876-29	A2876-30	
		CLIENT SAMPLE I.D.	MW2-40.25	MW2-44.8	MW2-49.5	MW2-54.5	
		EXTRACTION SOLVENT	---	---	---	---	
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	
Toluene	0.002	0.002	ND	ND	ND	ND	
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	
Total Xylenes	0.003	0.002	ND	ND	ND	ND	
Gasoline	0.050	0.50	ND	ND	ND	ND	
MTBE	0.001	0.005	ND	ND	ND	ND	
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	94	91	104	99	
Trifluorotoluene (TFT)	100 ng	65-125	103	101	104	97	

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:09/28/97	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT #LA59451)	LOT NUMBER:092897-7
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	3.68	100 ng	5734888	56954	+0.7	+/-20%
Toluene	PID	6.14	94.6 ng	5444669	57549	-5.4	+/-20%
Ethylbenzene	PID	8.72	91.4 ng	4482367	49024	-8.6	+/-20%
Total Xylenes	PID	8.95/9.66	151.6/101.4 ng	8325014/4768190	54091/47002	-13.4/+1.4	+/-20%
Gasoline	PID	NA	9.82 ng	167155856	18018300	-0.8	+/-20%
MTBE	PID	1.17	93.9 ng	1244748	13260	-6.1	+/-20%

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:02-02-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #:092897-7	
LAB SAMPLE I.D.:B9-80.0(GC1);B9-85.0(GC2)	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	300	299.2	100	300	305.0	102	1.9	65-125	20%
o-Xylene (GC1)	ND	210	214.8	102	210	223.8	107	4.1	65-125	20%
Toluene (GC2)	ND	300	199.8	100	200	200.3	100	0.2	65-125	20%
o-Xylene(GC2)	ND	165	169.4	103	165	170.0	103	0.4	65-125	20%
Gasoline (GC1)	ND	9.90	10.91	110	9.90	11.35	115	4.0	65-125	20%
Gasoline (GC2)	ND	9.90	9.64	97	9.90	9.96	101	3.3	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

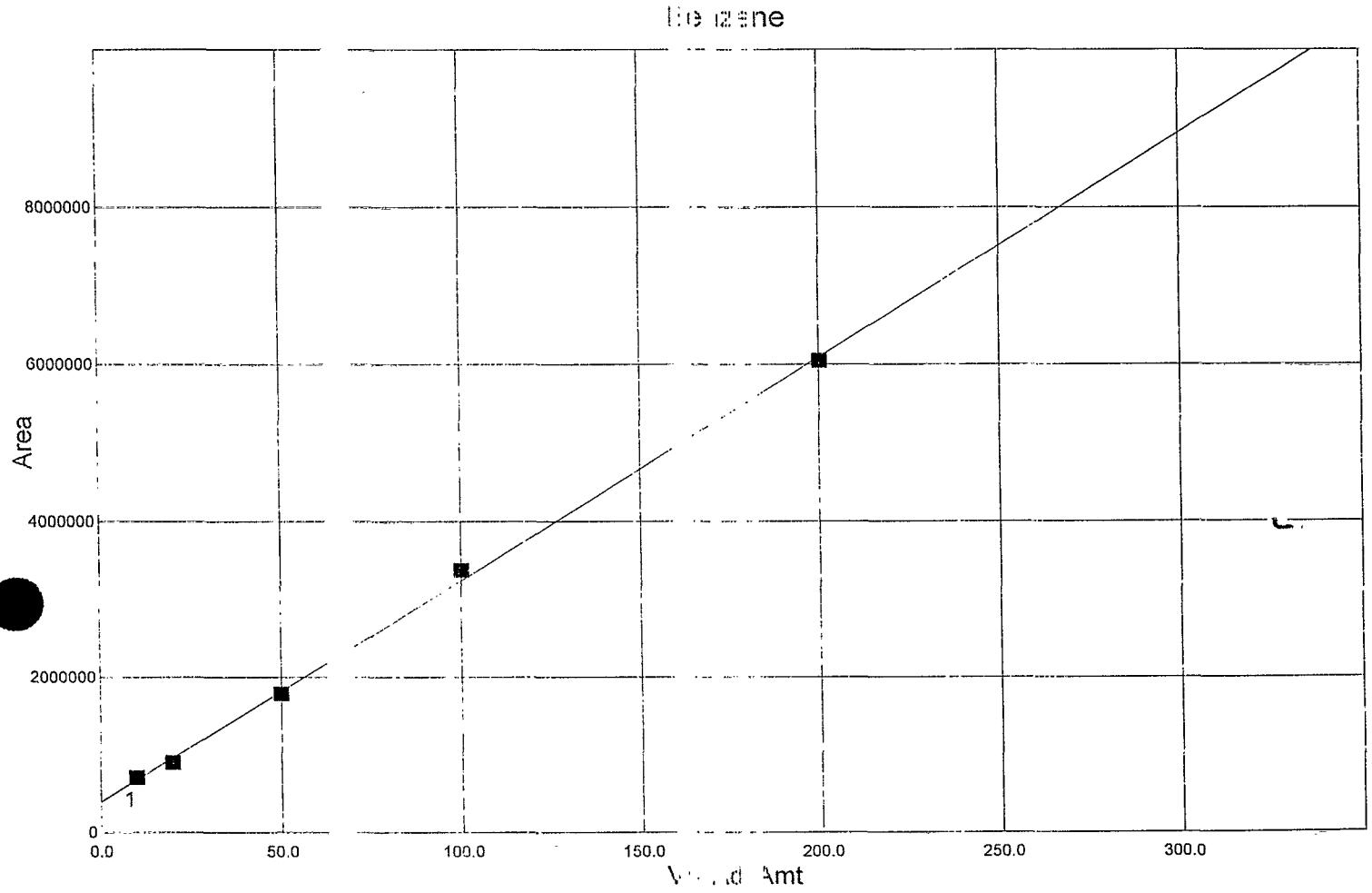
DATE PERFORMED:2-2-98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.:LCS8020+MTBE
LOT NUMBER:013098-1A	
ATE OF SOURCE:01/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	125	125	80-120
Toluene	100 ng	127	127	80-120
Ethylbenzene	100 ng	100.0	106	80-120
m,p-Xylene	200 ng	112.4	112	80-120
o-Xylene	100 ng	106.1	106	80-120
(GC2)	--	--	--	--
Benzene	100 ng	100.0	100	80-120
Toluene	100 ng	111.1	111	80-120
Ethylbenzene	100 ng	97.7	98	80-120
m,p-Xylene	100 ng	111.9	112	80-120
o-Xylene	100 ng	104.1	104	80-120
Gasoline (GC1)	9.90 ng	109.8	110	80-120
Gasoline (GC2)	9.90 ng	92.8	93	80-120
MTBE (GC1)	200 ng	219.0	110	80-120
MTBE (GC2)	100 ng	93.9	94	80-120

Fit Analysis Output For Method File: "C \ C4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:08 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .998634
Calibration Cur = (402259.966833) + (28490.05 [illegible]

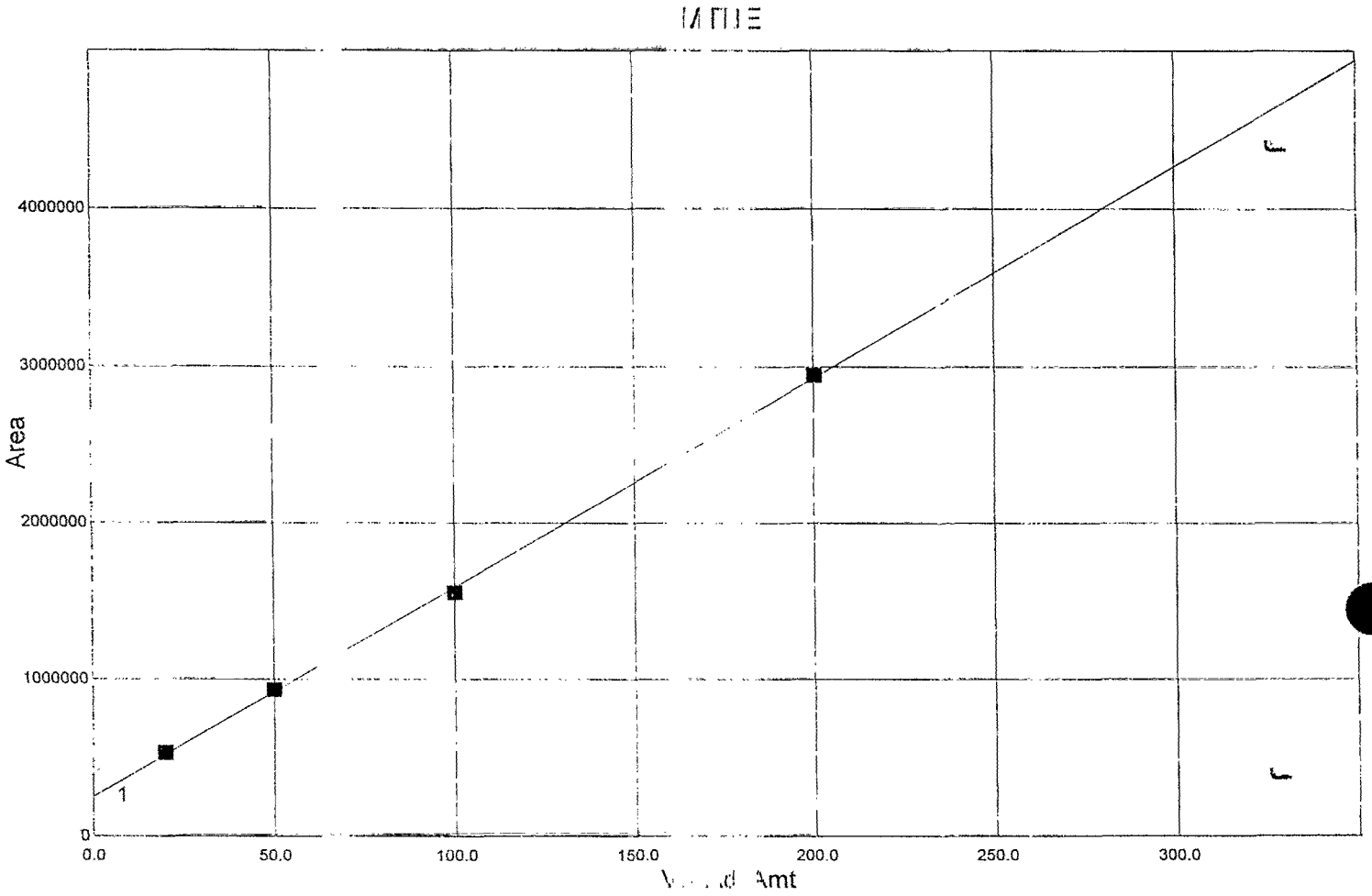


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1 [illegible]93909	-0.793909	-7.355	[illegible]9779.000	687160.498	22618.502	3.292
2	20.000000	1 [illegible]21695	2.378305	13.496	[illegible]4303.000	972061.028	-67758.028	-6.971
3	50.000000	4 [illegible]36485	1.263515	2.593	[illegible]7765.000	1826762.620	-35997.620	-1.971
4	100.000000	10 [illegible]67795	-4.667795	-4.460	[illegible]4251.000	3251265.274	132985.726	4.090
5	200.000000	19 [illegible]80116	1.819884	0.918	[illegible]8422.000	6100270.580	-51848.580	-0.850

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "MT[illegible]"
Date: 2/18/98 Time: 10:08 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.999455
Calibration Cur = (253326.483266) + (13393.63[illegible]

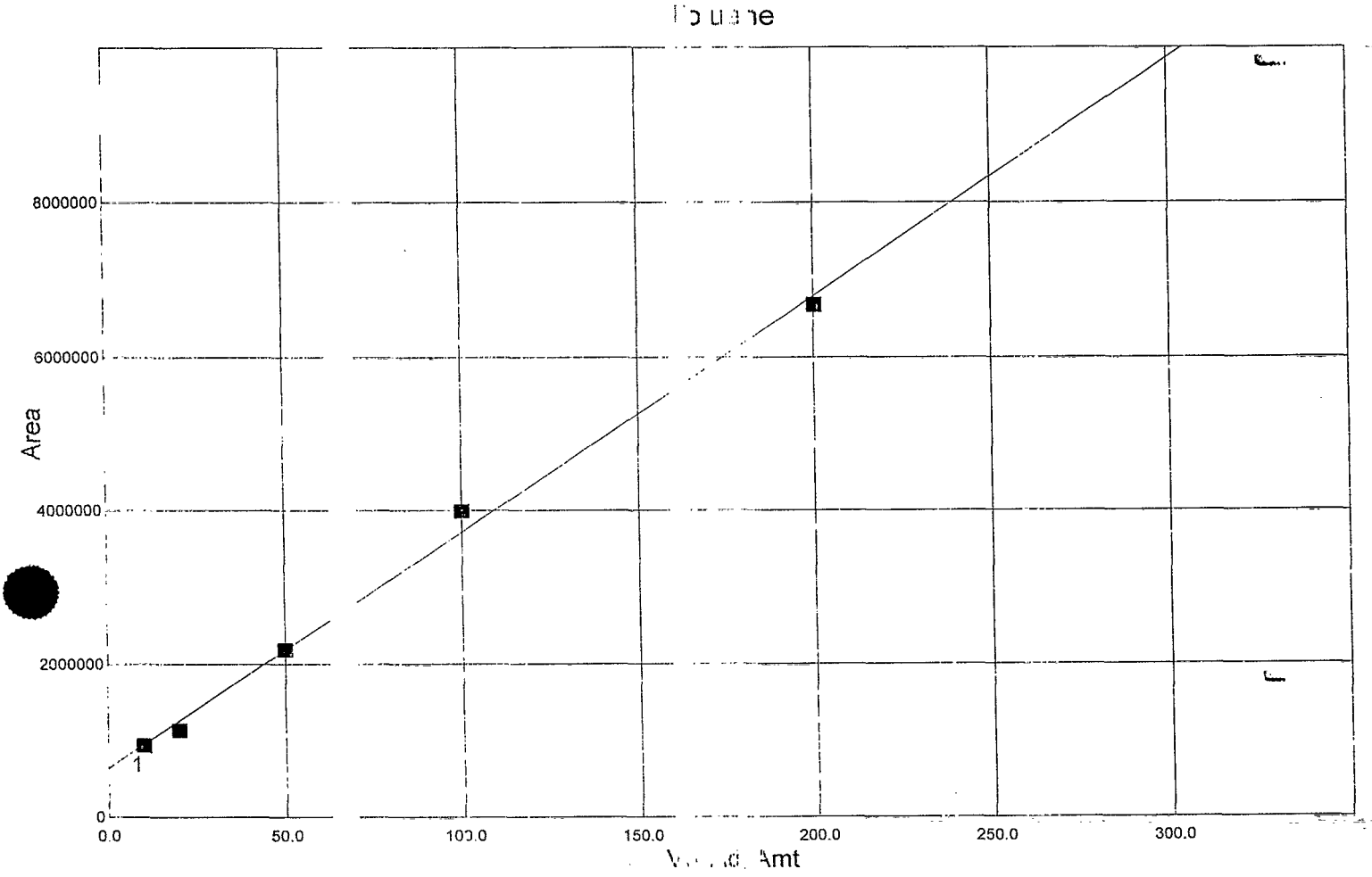


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	2[illegible].848594	-0.848594	-4.070	[illegible]565.000	521199.244	11365.756	2.181
3	50.000000	5[illegible].820286	-0.820286	-1.614	[illegible]3995.000	923008.384	10986.616	1.190
4	100.000000	9[illegible].242102	2.757898	[illegible]2.836	[illegible]5752.000	1592690.285	-36938.285	-2.319
5	200.000000	20[illegible].089018	-1.089018	-0.542	[illegible]6640.000	2932054.087	14585.913	0.497

Fit Analysis Output for Method File: "C \ C\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:10 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .995538
Calibration Cur = (655439.449420) + (30720.03 [illegible]

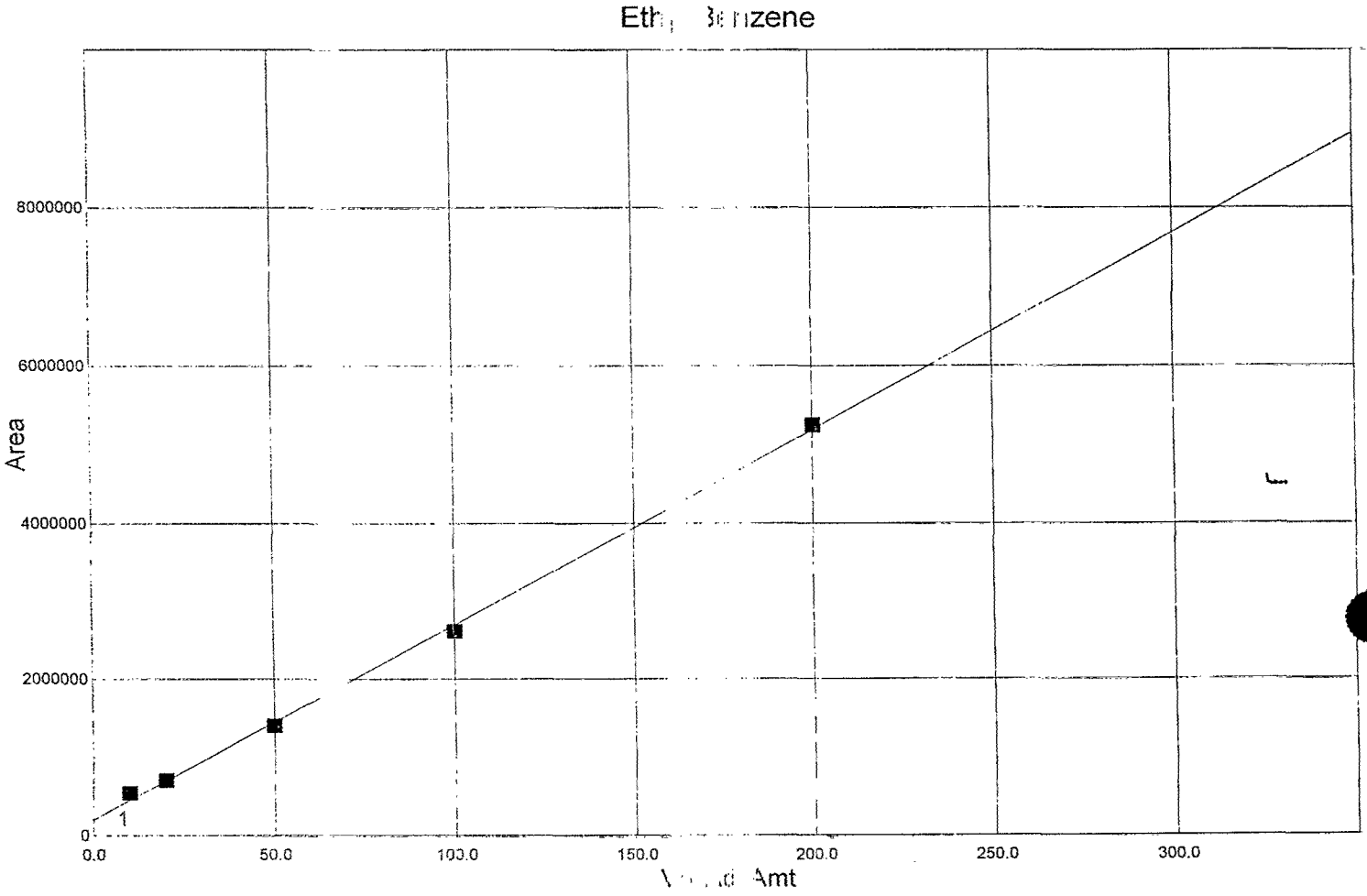


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]66643	0.533357	5.634	[illegible]6254.000	962638.759	-16384.759	-1.702
2	20.000000	1[illegible]76337	4.223663	26.772	[illegible]0088.000	1269939.068	-129751.068	-10.218
3	50.000000	4[illegible]71517	0.028483	0.057	[illegible]0565.000	2191439.996	-874.996	-0.040
4	100.000000	10[illegible]58698	-8.658698	-7.969	[illegible]3437.000	3727441.542	265995.458	7.136
5	200.000000	19[illegible]26806	3.873194	1.975	[illegible]0460.000	6759444.635	-118984.635	-1.750

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:11 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998618
Calibration Curve = (207055.325041) + (24965.1[illegible]

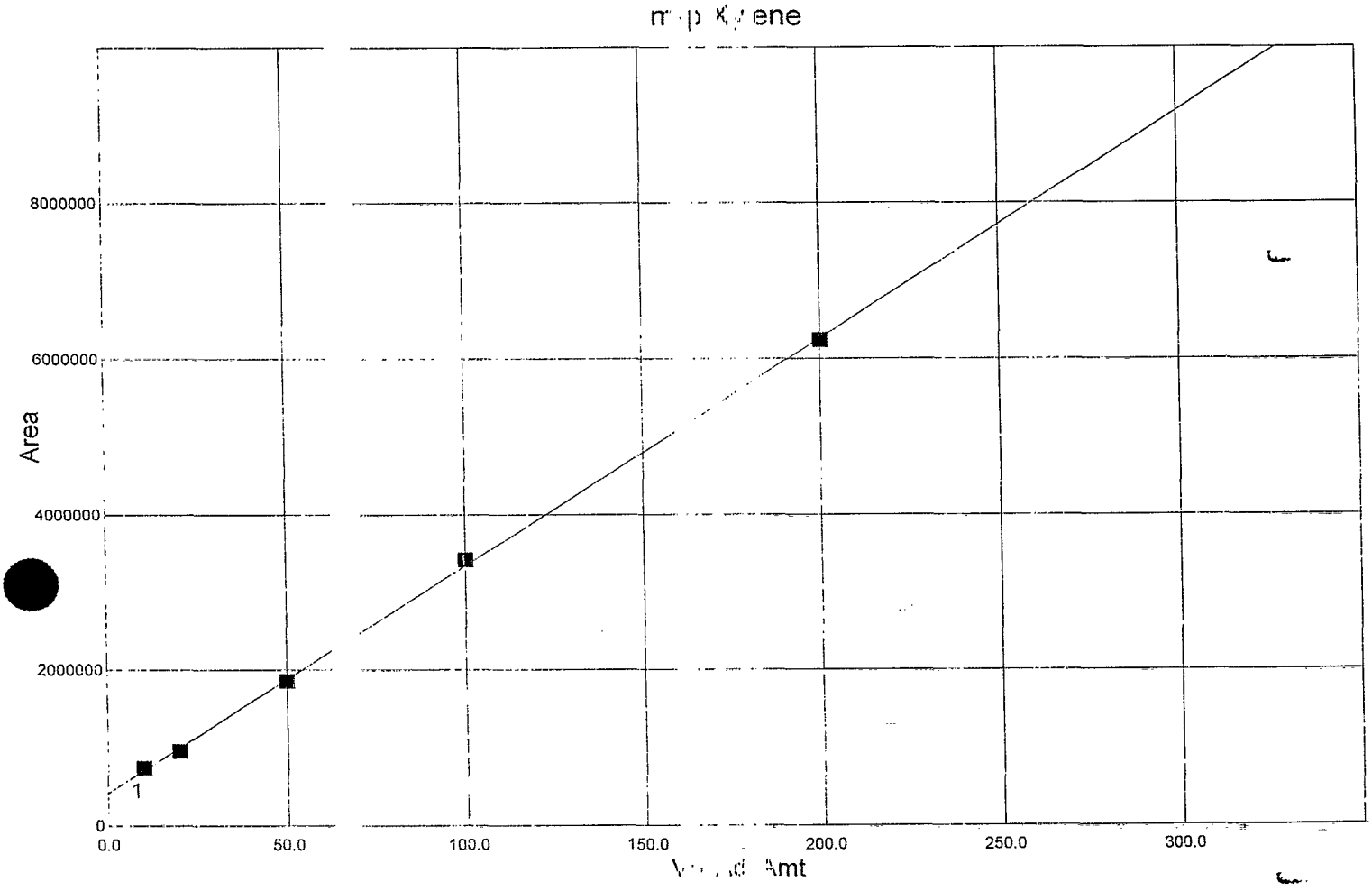


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].93888	-3.493888	-25.892	[illegible]3932.000	456706.624	87225.376	19.099
2	20.000000	2[illegible].019991	-0.019991	-0.100	[illegible]6857.000	706357.924	499.076	0.071
3	50.000000	4[illegible]86299	2.113701	4.414	[illegible]2543.000	1455311.822	-52768.822	-3.626
4	100.000000	9[illegible]96190	3.503820	3.631	[illegible]16095.000	2703568.318	-87473.318	-3.235
5	200.000000	20[illegible].03642	-2.103642	-1.041	[illegible]5399.000	5200081.312	52517.688	1.010

Fit Analysis Output for Method File: "C \ C4\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:11 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.999541
Calibration Cur = (422455.767828) + (29221.77 [illegible]

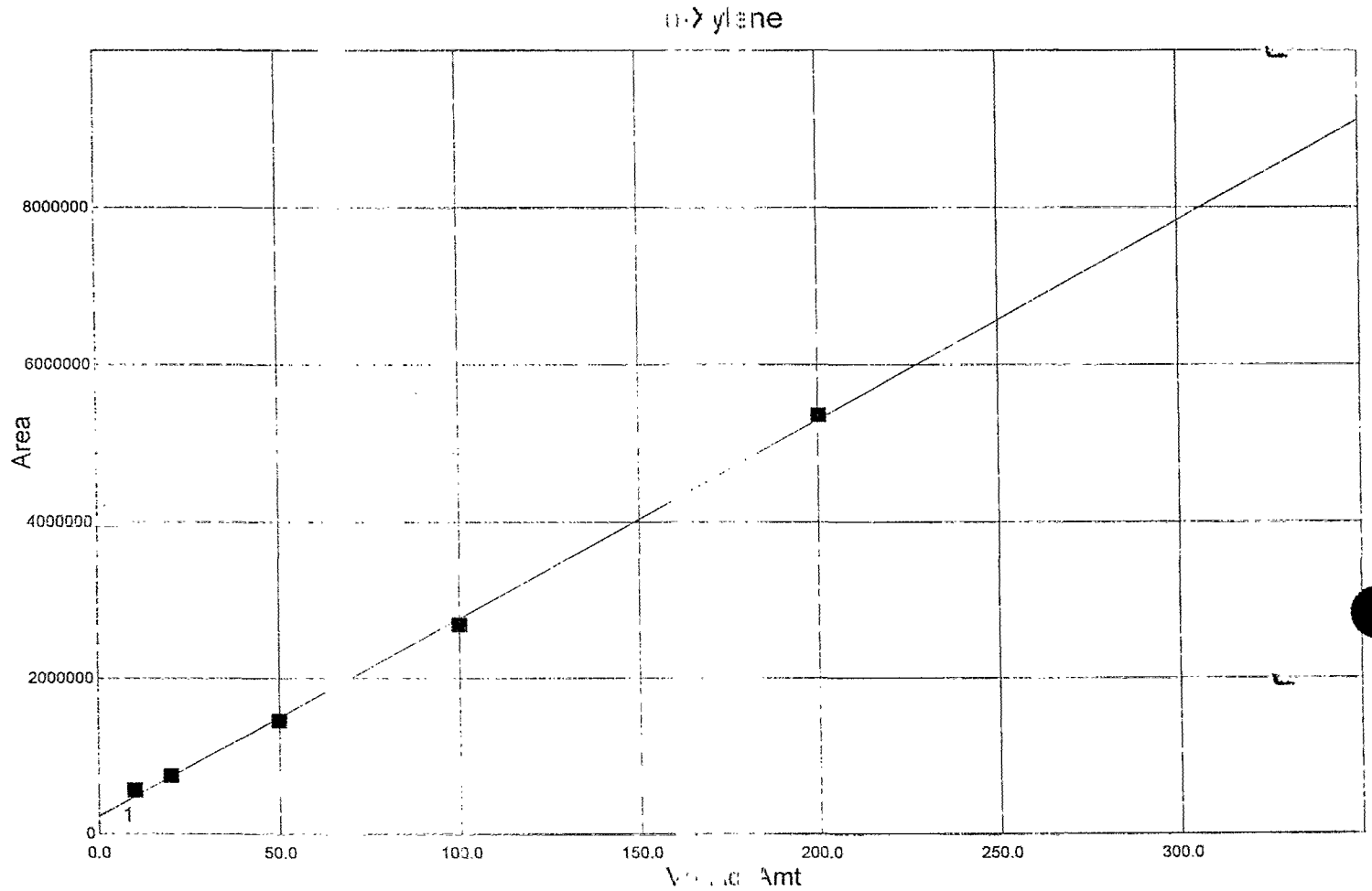


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1 976550	-0.976550	-8.897	3210.000	714673.483	28536.517	3.993
2	20.000000	1 393759	1.606241	8.733	9954.000	1006391.197	-46937.197	-4.662
3	50.000000	4 069791	0.930209	1.896	16362.000	1883544.342	-27182.342	-1.443
4	100.000000	10 431101	-2.431101	-2.373	15674.000	3344632.915	71041.085	2.124
5	200.000000	19 128798	0.871202	0.438	3352.000	6266310.063	-25458.063	-0.406

Fit Analysis Output for Method File: "C:\CE\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:11 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998867
Calibration Curve = (237558.446103) + (25380.63[illegible]) [illegible]

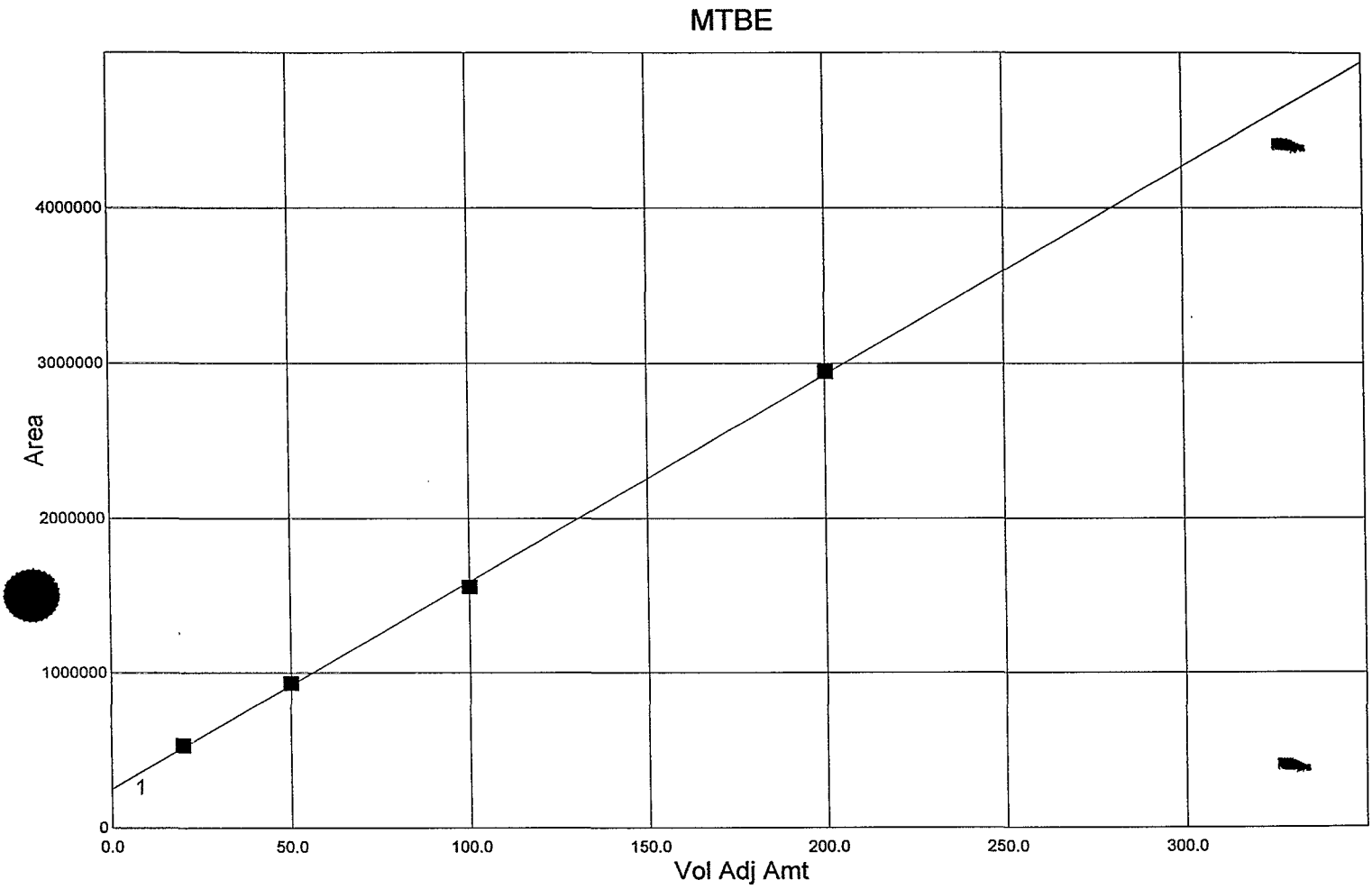


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]9704	-3.009704	-23.134	[illegible]7753.000	491364.808	76388.192	15.546
2	20.000000	2[illegible]22959	-0.222959	-1.103	[illegible]0930.000	745171.171	5658.829	0.759
3	50.000000	4[illegible]25905	1.874195	3.894	[illegible]9022.000	1506590.258	-47568.258	-3.157
4	100.000000	9[illegible]91530	3.308470	3.422	[illegible]2651.000	2775622.070	-83971.070	-3.025
5	200.000000	20[illegible]50003	-1.950003	-0.966	[illegible]2178.000	5313685.693	49492.307	0.931

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "MTBE"
Date: 2/2/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999455
Calibration Curve = (253326.483266) + (13393.638019)X

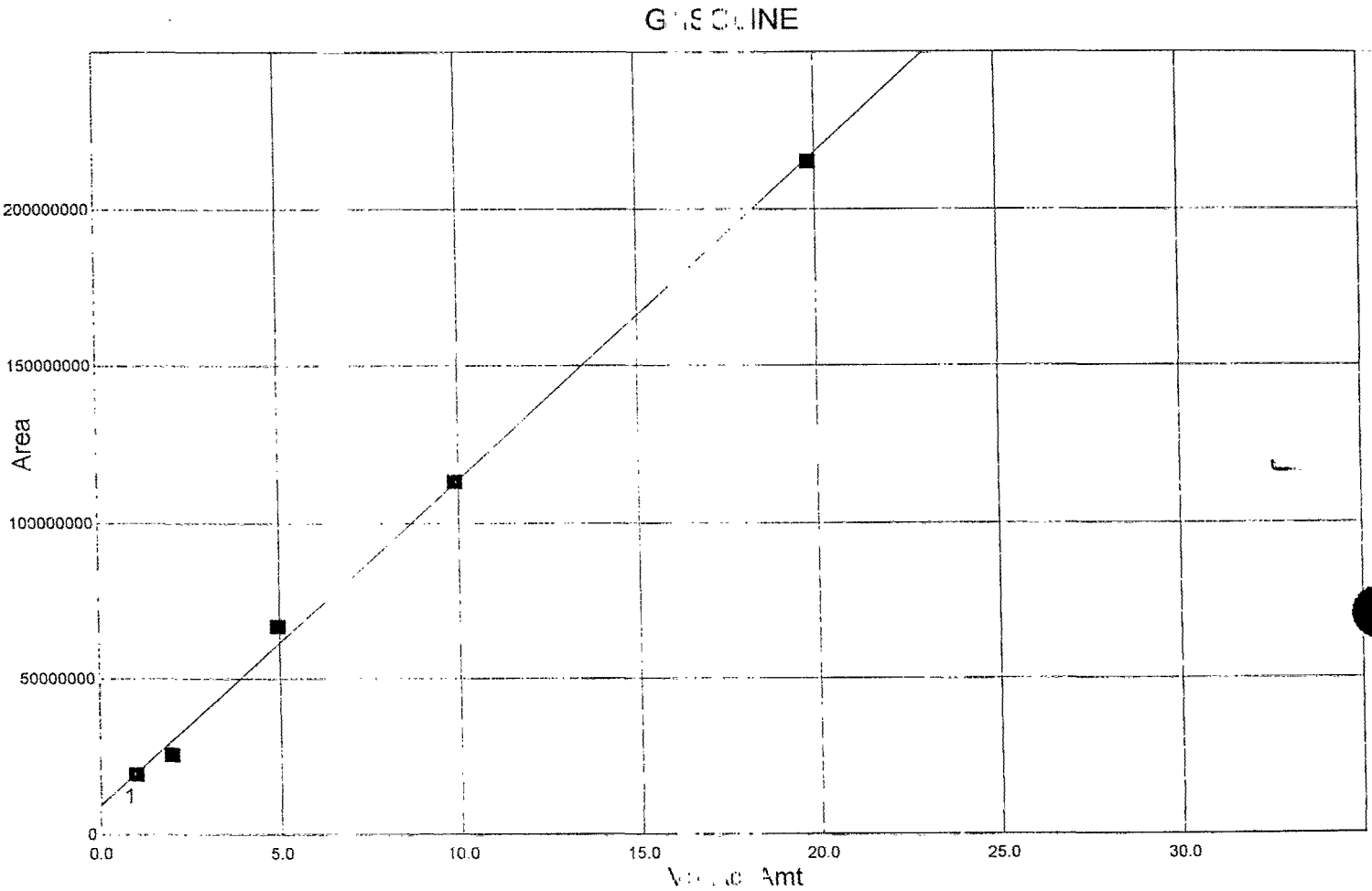


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	20.848594	-0.848594	-4.070	532565.000	521199.244	11365.756	2.181
3	50.000000	50.820286	-0.820286	-1.614	933995.000	923008.384	10986.616	1.190
4	100.000000	97.242102	2.757898	2.836	1555752.000	1592690.285	-36938.285	-2.319
5	200.000000	201.089018	-1.089018	-0.542	2946640.000	2932054.087	14585.913	0.497

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:11 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.997886
Calibration Curve = (9489239.723051) + (1044211 [illegible] X

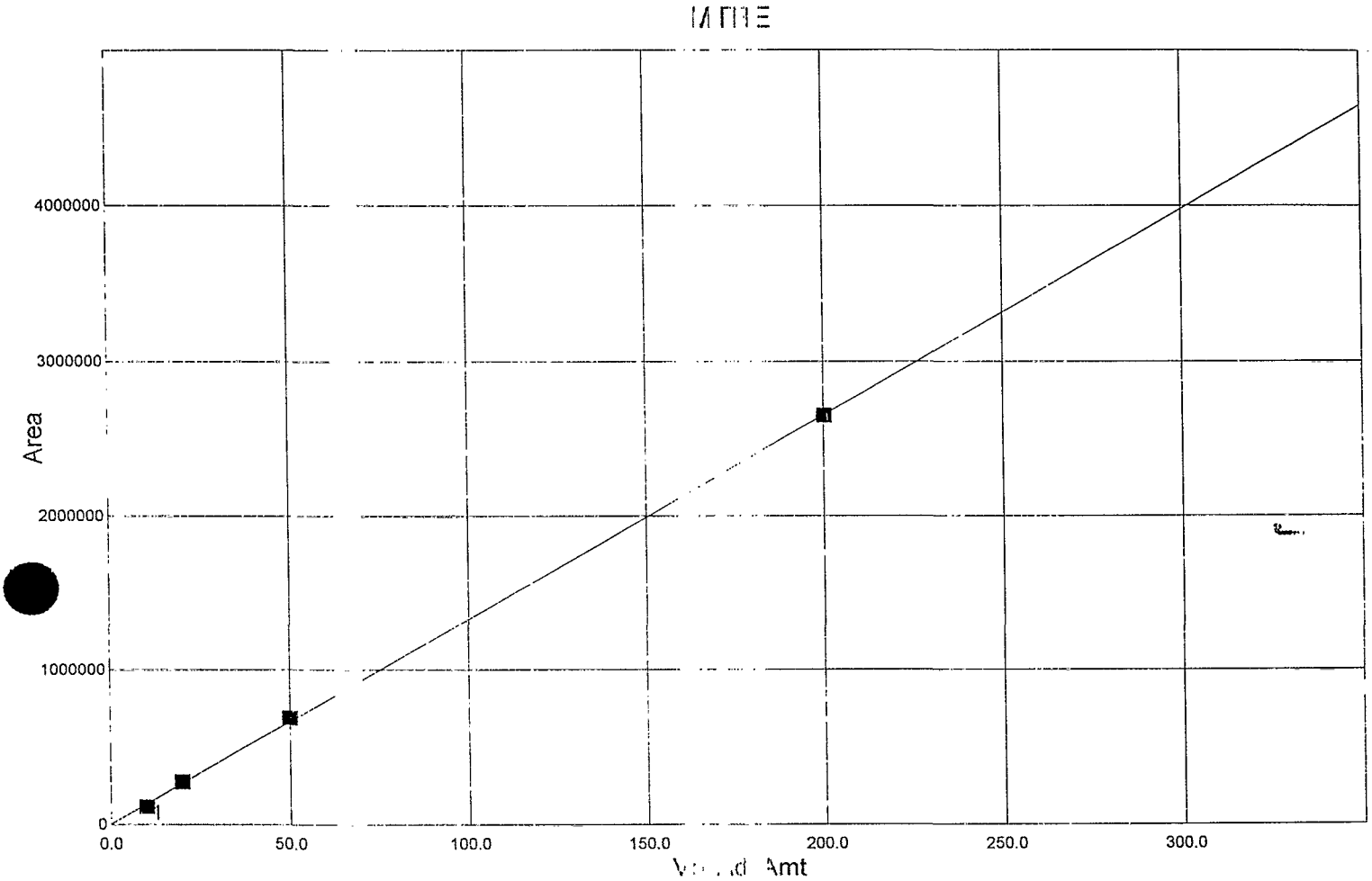


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]947440	0.042560	4.492	[illegible]2515.000	19826328.654	-444413.654	-2.241
2	1.980000	[illegible]46422	0.433578	28.037	[illegible]7149.000	30164617.585	-4527468.585	-15.009
3	4.950000	[illegible]94394	-0.544394	-9.908	[illegible]2310.000	61177684.379	5684625.621	9.292
4	9.900000	[illegible]44712	-0.044712	-0.450	[illegible]3020.000	112866129.035	466890.965	0.414
5	19.800000	1[illegible]87031	0.112969	0.574	[illegible]3384.000	216243018.347	-1179634.347	-0.546

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "MTBE"
Date: 2/18/98 Time: 10:06 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 1.999780
Calibration Cur = (5476.048316) + (13260.0527 X

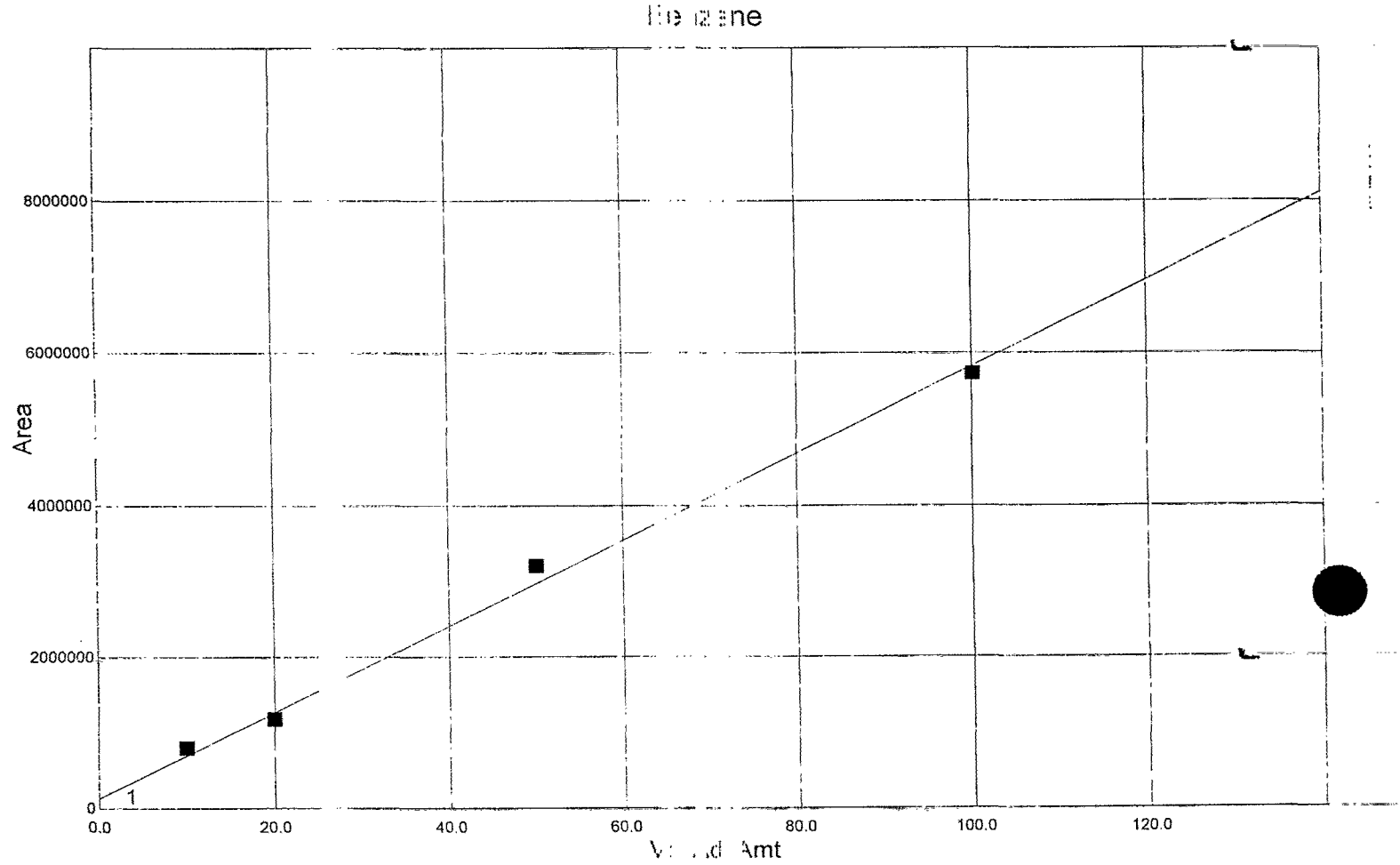


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	.95136	1.504864	17.714	18122.000	138076.575	-19954.575	-14.452
2	20.000000	2 .588602	-0.588602	-2.859	278482.000	270677.102	7804.898	2.883
3	50.000000	5 .750469	-1.750469	-3.383	11690.000	668478.684	23211.316	3.472
5	200.000000	19 .78766	0.421234	0.211	2[illegible]2901.000	2657486.590	-5585.590	-0.210

Fit Analysis Output for Method File: "C \ C4 \GC2B\GC2B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:06 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 1.995256
Calibration Cur = (134543.049080) + (56953.62 [illegible]

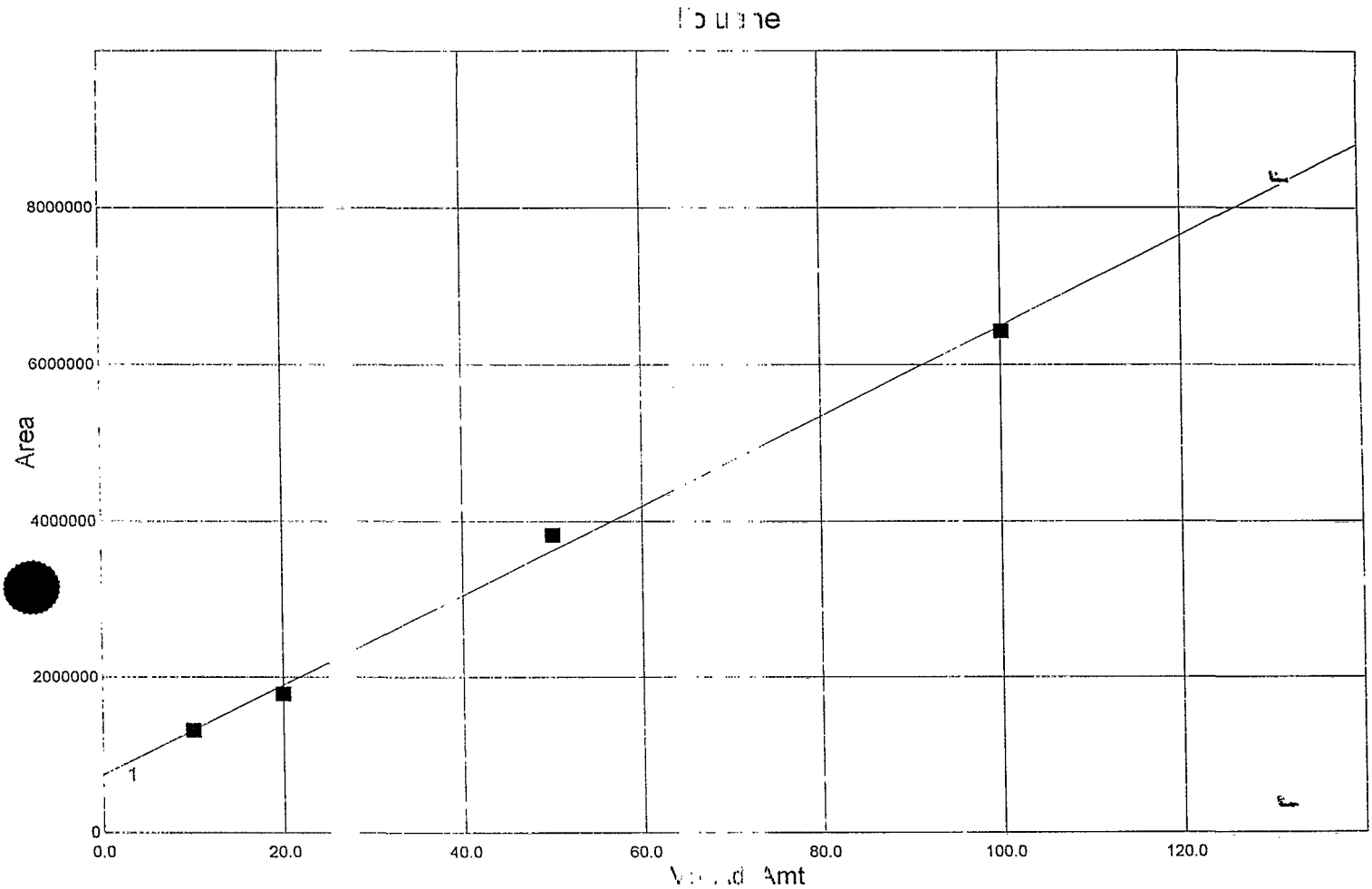


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1 [illegible]	-1.769242	-15.033	[illegible]4844.000	704079.258	100764.742	14.312
2	20.000000	1 [illegible]	1.565422	8.492	1 [illegible]4459.000	1273615.466	-89156.466	-7.000
3	50.000000	5 [illegible]44693	-4.044693	-7.494	3 [illegible]2584.000	2982224.092	230359.908	7.724
4	100.000000	9 [illegible]23814	1.886186	1.922	5 [illegible]2480.000	5829905.135	-107425.135	-1.843

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:07 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.996421
Calibration Curve = (750593.551020) + (57549.13[illegible]) X

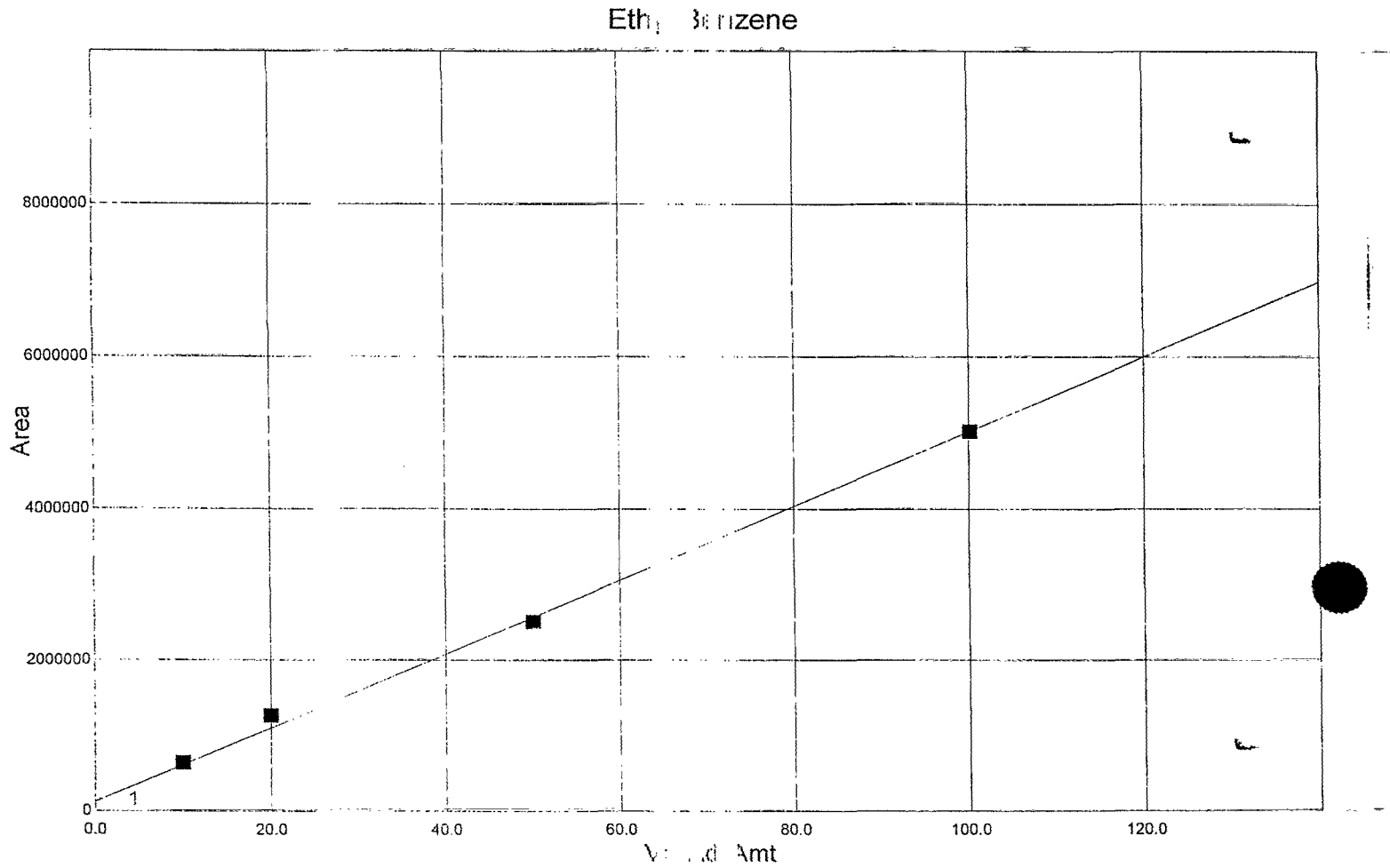


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]321008	0.078992	0.796	[illegible]1539.000	1326084.929	-4545.929	-0.343
2	20.000000	1[illegible]949677	2.050323	11.423	[illegible]3582.000	1901576.306	-117994.306	-6.205
3	50.000000	5[illegible]422702	-3.422702	-6.407	[illegible]5024.000	3628050.439	196973.561	5.429
4	100.000000	9[illegible]06623	1.293387	1.310	[illegible]1074.000	6505507.327	-74433.327	-1.144

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:07 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Factor = 1.0 (No Weighting) r = 1.997039
Calibration Cur = (1234-9.012270) + (49023.60 [illegible]

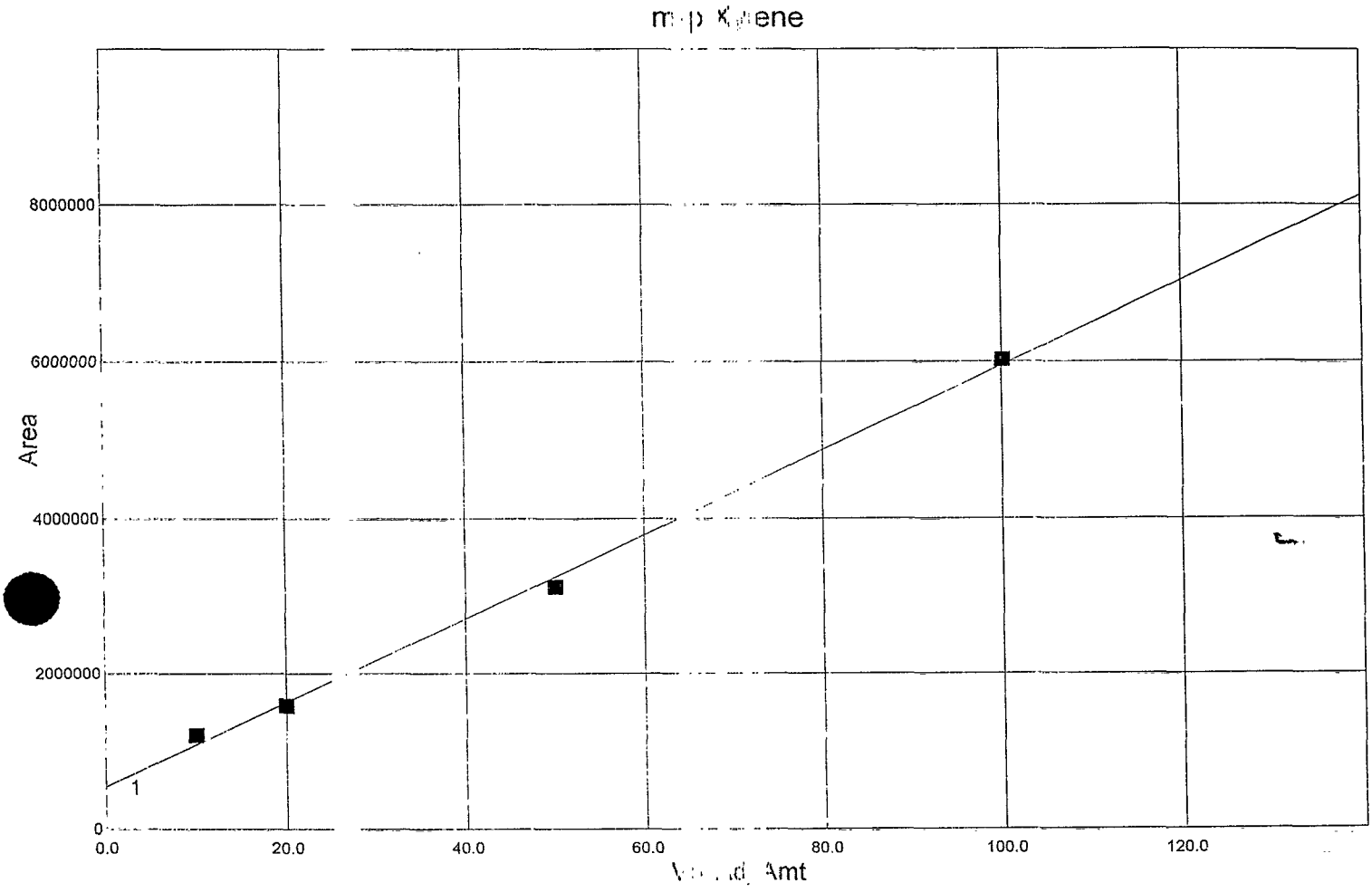


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1 [illegible]26276	-0.526276	-5.010	[illegible]9485.000	613585.064	25799.936	4.204
2	20.000000	2 [illegible]40654	-3.340654	-14.313	[illegible]7692.000	1103921.117	163770.883	14.835
3	50.000000	4 [illegible]4396	1.256033	2.577	[illegible]13054.000	2574629.273	-61575.273	-2.392
4	100.000000	9 [illegible]07258	0.092742	0.093	[illegible]22263.000	5025809.534	-4546.534	-0.090

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:07 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .997343
Calibration Curve = (552212.183673) + (54091.44[illegible] X)

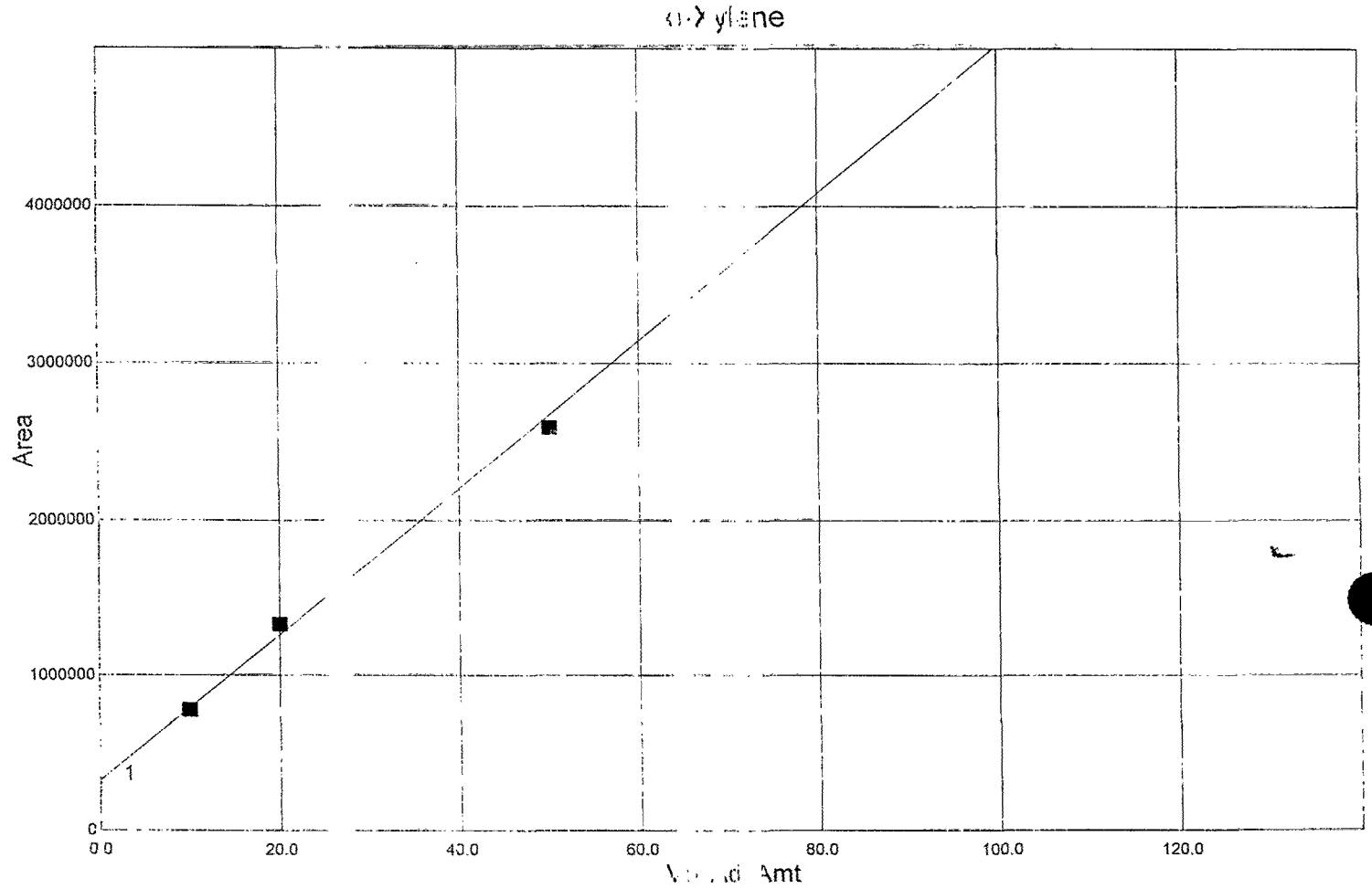


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].78003	-2.178003	-17.885	1[illegible]10938.000	1093126.643	117811.357	10.777
2	20.000000	1[illegible]87137	0.912863	4.783	1[illegible]34663.000	1634041.102	-49378.102	-3.022
3	50.000000	4[illegible]40175	2.459825	5.174	3[illegible]23729.000	3256784.480	-133055.480	-4.085
4	100.000000	10[illegible].94685	-1.194685	-1.181	6[illegible]25979.000	5961356.776	64622.224	1.084

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:08 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.998900
Calibration Cur = (324351.071429) + (47002.39[illegible]

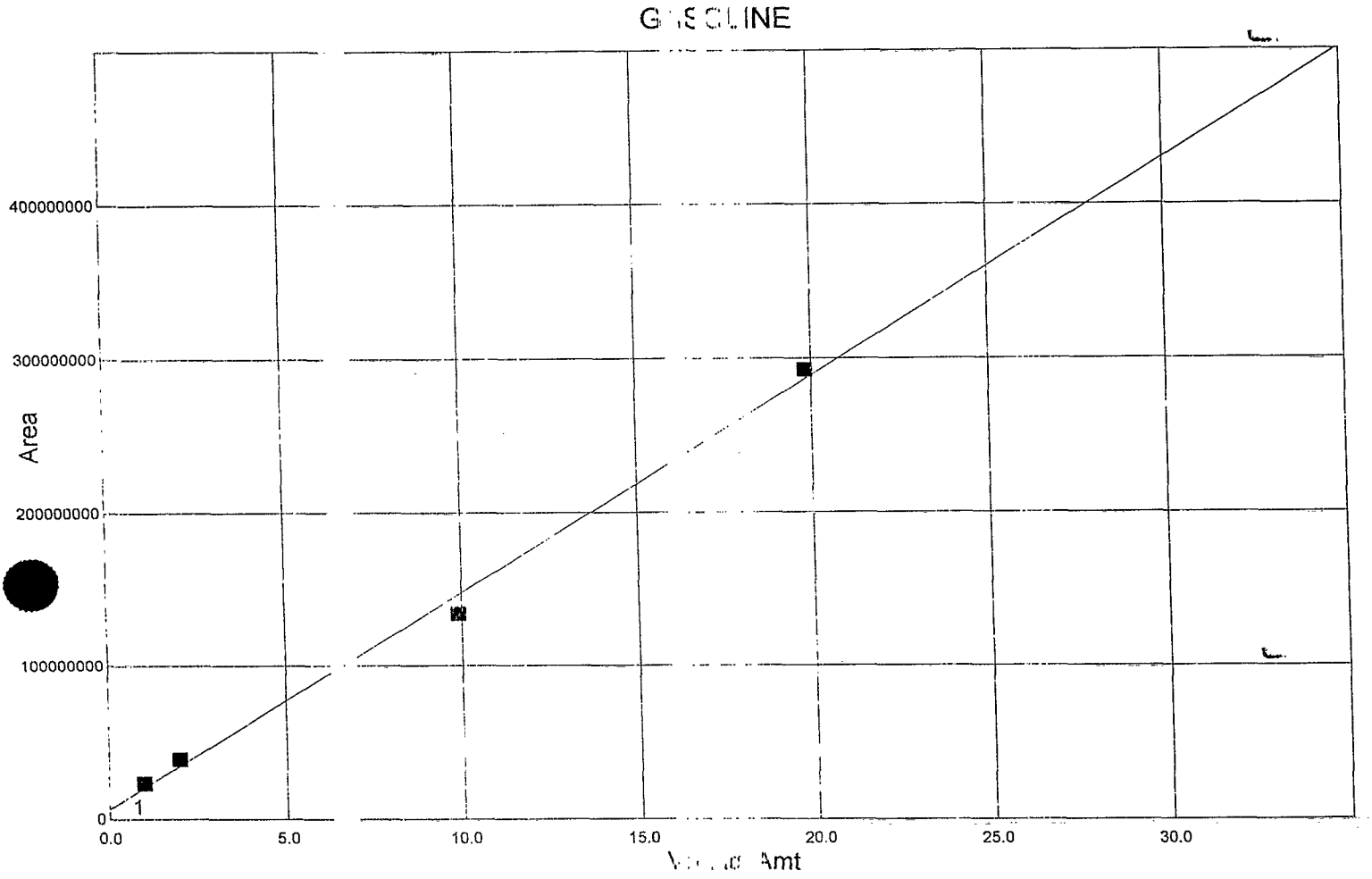


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]65996	0.334004	[illegible]	[illegible]8676.000	794375.000	-15699.000	-1.976
2	20.000000	2 [illegible]35205	-1.435205	-6.696	1[illegible]957.000	1264398.929	67458.071	5.335
3	50.000000	4 [illegible]04880	1.695120	3.509	2[illegible]4796.000	2674470.714	-79674.714	-2.979
4	100.000000	10 [illegible]93920	-0.593920	-0.590	5[illegible]2506.000	5024590.357	27915.643	0.556

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:12 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.995350
Calibration Curve = (6818405.118153) + (1412713.[illegible])X



Level Name	Observed X-Value	Calculated Y-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]72489	-0.182489	-15.564	[illegible]2316.000	20804265.437	2578050.563	12.392
2	1.980000	[illegible]78333	-0.298333	-13.094	[illegible]4722.000	34790125.756	4214596.244	12.114
4	9.900000	[illegible]016270	0.883730	9.802	[illegible]2439.000	146677008.308	-12484569.308	-8.512
5	19.800000	2[illegible]02907	-0.402907	-1.994	[illegible]7534.000	286535511.498	5691922.502	1.986

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 02/09/98 To

Date(s) received: 02/09/98 To

Date(s) reported: 02/09/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: A-2880

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-9-98		2-9-98	2-9-98	2-9-98
		DATE EXTRACTED	2-9-98		2-9-98	2-9-98	2-9-98
		LAB SAMPLE I.D.	MB		A2880-1	A2880-2	A2880-3
		CLIENT SAMPLE I.D.	--		B5-15.25	B5-20.0	B5-25.25
		EXTRACTION SOLVENT	---		---	---	---
		EXTRACTION METHOD	EPA 5030		EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1		1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND		ND	ND	ND
Toluene	0.002	0.002	ND		ND	ND	ND
Ethylbenzene	0.003	0.002	ND		ND	ND	ND
Total Xylenes	0.003	0.002	ND		ND	ND	ND
Gasoline	0.050	0.50	ND		ND	ND	ND
MTBE	0.001	0.005	ND		ND	ND	0.005
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	87		101	90	105
Trifluorotoluene (TFT)	100 ng	65-125	87		104	97	101

(RWQCB LabForm10A;Ver12/94)

Project No: A-2880

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		DATE EXTRACTED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		LAB SAMPLE I.D.	A2880-4	A2880-5	A2880-6	A2880-7	A2880-8
		CLIENT SAMPLE I.D.	B5-30.0	B5-35.5	B5-40.25	B5-45.25	B5-50.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	0.024	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	0.21	ND	ND	ND
Total Xylenes	0.003	0.002	0.035	0.53	ND	0.011	ND
Gasoline	0.050	0.50	1.3	5.9	ND	ND	ND
MTBE	0.001	0.005	0.027	0.039	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	101	123	101	105	99
Trifluorotoluene (TFT)	100 ng	65-125	104	107	104	104	100

(RWQCB LabForm10A;Ver12/94)

Project No: A-2880

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		DATE EXTRACTED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		LAB SAMPLE I.D.	A2880-9	A2880-10	A2880-11	A2880-12	A2880-13
		CLIENT SAMPLE I.D.	B5-54.5	B5-60.0	B5-65.0	B5-69.8	B5-74.75
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	105	99	108	103	105
Trifluorotoluene (TFT)	100 ng	65-125	104	99	102	106	104

(RWQCB LabForm10A;Ver12/

Project No: A-2880

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		DATE EXTRACTED	2-9-98	2-9-98	2-9-98	2-9-98	2-9-98
		LAB SAMPLE I.D.	A2880-14	A2880-15	A2880-16	A2880-17	A2880-18
		CLIENT SAMPLE I.D.	B5-79.5	B5-84.75	B5-89.5	B5-94.5	B5-99.5
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	99	101	103	106	99
Trifluorotoluene (TFT)	100 ng	65-125	104	103	107	103	101

(RWQCB LabForm10A;Ver12/94)

Project No: A-2880

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-9-98	2-9-98	2-9-98		
		DATE EXTRACTED	2-9-98	2-9-98	2-9-98		
		LAB SAMPLE I.D.	A2880-19	A2880-20	A2880-21		
		CLIENT SAMPLE I.D.	B5-104.5	B5-110.25	B5-114.5		
		EXTRACTION SOLVENT	---	---	---		
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030		
		DILUTION FACTOR	1	1	1		
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND		
Toluene	0.002	0.002	ND	ND	ND		
Ethylbenzene	0.003	0.002	ND	ND	ND		
Total Xylenes	0.003	0.002	ND	ND	ND		
Gasoline	0.050	0.50	ND	ND	ND		
MTBE	0.001	0.005	ND	ND	ND		
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	104	100	104		
Trifluorotoluene (TFT)	100 ng	65-125	104	102	103		

Project No: A-2880

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:09/28/97	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT # LA59451)	LOT NUMBER:092898-7
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	3.73	100 ng	5923180	56954	+4.0	+/-20%
Toluene	PID	6.163	100 ng	5753969	57549	-0.0	+/-20%
Ethylbenzene	PID	8.73	100 ng	4721089	49024	-3.7	+/-20%
Total Xylenes	PID	8.95/9.67	150/100 ng	8491908/5073377	54091/47002	+4.7/+7.9	+/-20%
Gasoline	PID	NA	9.90 ng	11002/2616	10422100	+5.6	+/-20%
MTBE	PID	1.19	100 ng	1343386	13260	+1.3	+/-20%

Project No: A-2880

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-9-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #:092898-7	
LAB SAMPLE I.D.:B5-114.5(GC1);B5-110.25	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	300	305.6	102	300	297.3	99	2.8	65-125	20%
o-Xylene (GC1)	ND	210	218.4	104	210	213.5	102	2.3	65-125	20%
Toluene (GC2)	ND	200	199.1	100	200	198.8	99	0.2	65-125	20%
o-Xylene(GC2)	ND	155	169.6	109	155	174.4	113	2.7	65-125	20%
Gasoline (GC1)	ND	9.90	9.99	101	9.90	9.78	99	2.1	65-125	20%
Gasoline (GC2)	ND	9.90	10.66	108	9.90	10.47	106	1.8	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

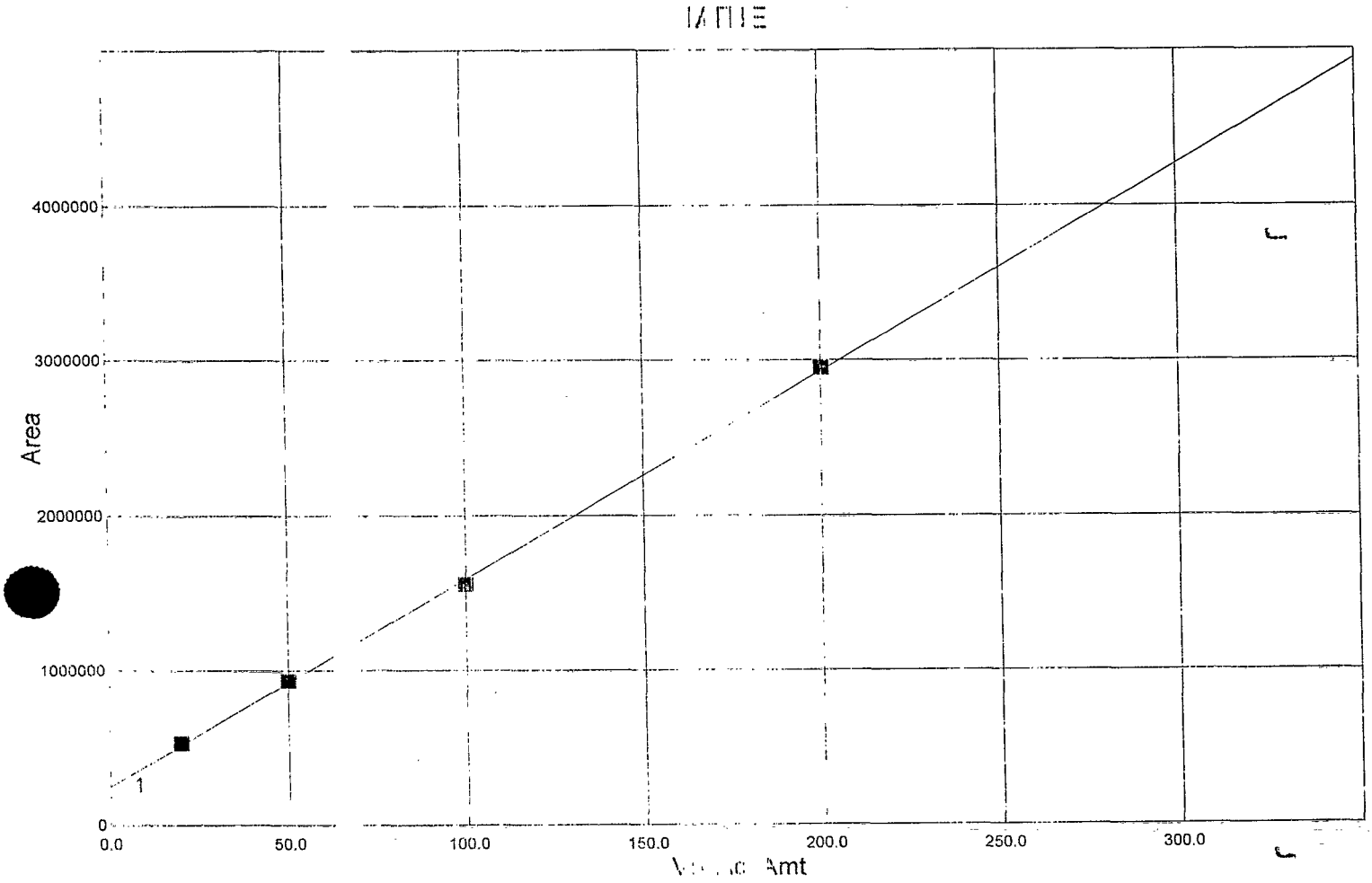
DATE PERFORMED:2-9-98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.: LCS 8020 + MTBE; LCS GASOLINE
LOT NUMBER:013098-1	
DATE OF SOURCE: 01/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	110.97	111	80-120
Toluene	100 ng	96.50	96	80-120
Ethylbenzene	100 ng	92.59	93	80-120
m,p-Xylene	200 ng	99.01	99	80-120
o-Xylene	100 ng	97.37	97	80-120
(GC2)	--	--	--	--
Benzene	100 ng	104.00	104	80-120
Toluene	100 ng	99.98	100	80-120
Ethylbenzene	100 ng	96.30	96	80-120
m,p-Xylene	150 ng	156.99	105	80-120
o-Xylene	100 ng	107.94	108	80-120
Gasoline (GC1)	9.90 ng	10.56	107	80-120
Gasoline (GC2)	9.90 ng	9.43	95	80-120
MTBE (GC1)	50 ng	114.5	115	80-120
MTBE (GC2)	100 ng	101.31	101	80-120

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "MTH"
Date: 2/18/98 Time: 10:19 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .999455
Calibration Cur = (2533[illegible]6.483266) + (13393.63[illegible]

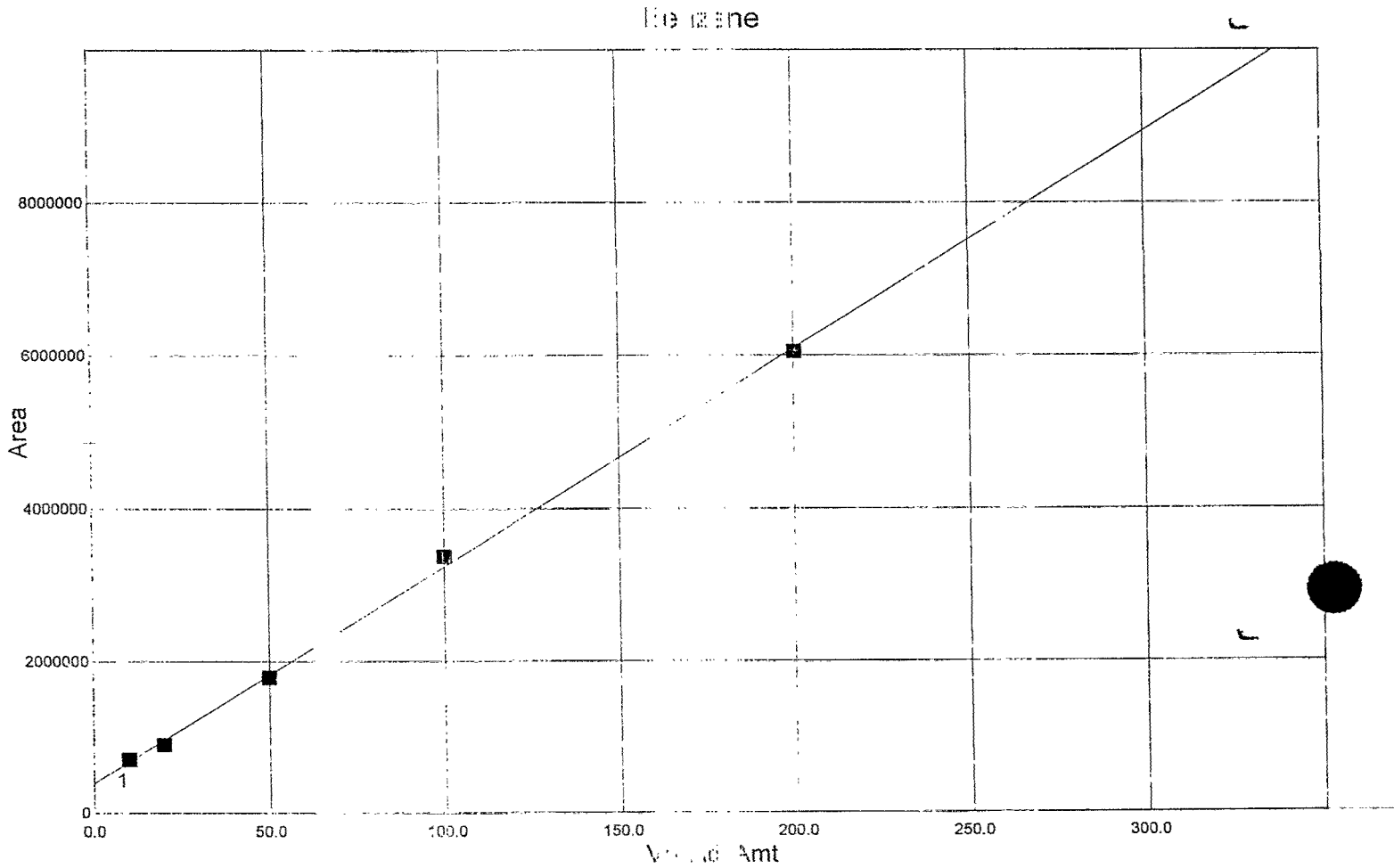


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	2[illegible]843594	-0.848594	-4.070	[illegible]2565.000	521199.244	11365.756	2.181
3	50.000000	5[illegible]820286	-0.820286	-1.614	[illegible]3995.000	923008.384	10986.616	1.190
4	100.000000	9[illegible]42102	2.757898	2.836	[illegible]5752.000	1592690.285	-36938.285	-2.319
5	200.000000	20[illegible]89018	-1.089018	-0.542	[illegible]6640.000	2932054.087	14585.913	0.497

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:19 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998634
Calibration Curve = (402259.966833) + (28490.05[illegible]

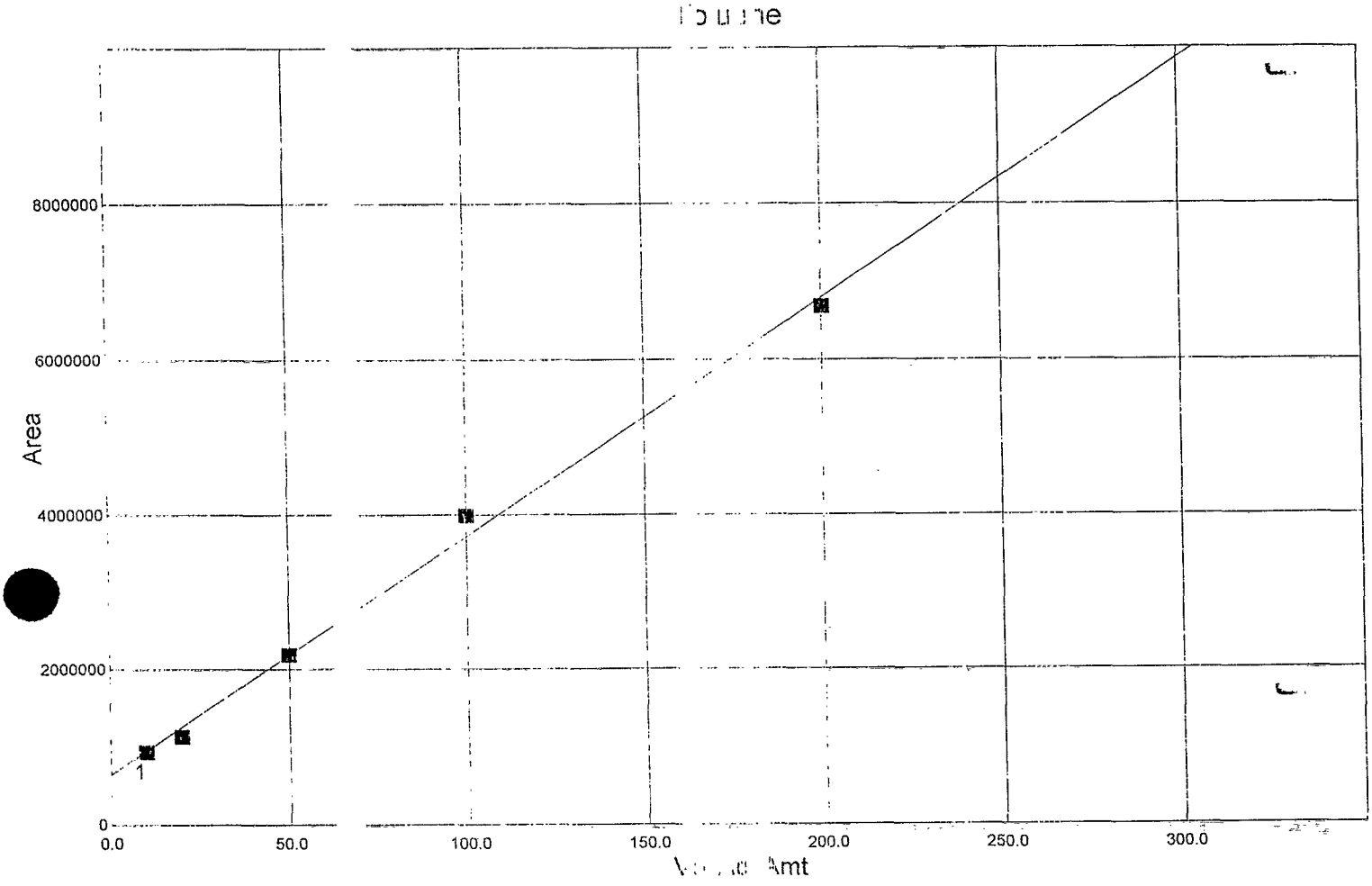


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].793909	-0.793909	-7.355	[illegible]9779.000	687160.498	22618.502	3.292
2	20.000000	1[illegible]21695	2.278305	13.496	[illegible]4303.000	972061.028	-67758.028	-6.971
3	50.000000	4[illegible]36485	1.263515	[illegible]21593	[illegible]0765.000	1826762.620	-35997.620	-1.971
4	100.000000	10[illegible]67795	-4.667795	-4.460	[illegible]4251.000	3251265.274	132985.726	4.090
5	200.000000	19[illegible].80116	1.819884	0.918	[illegible]8422.000	6100270.580	-51848.580	-0.850

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:19 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.995538
Calibration Curve = (655439.449420) + (30720.03[illegible]

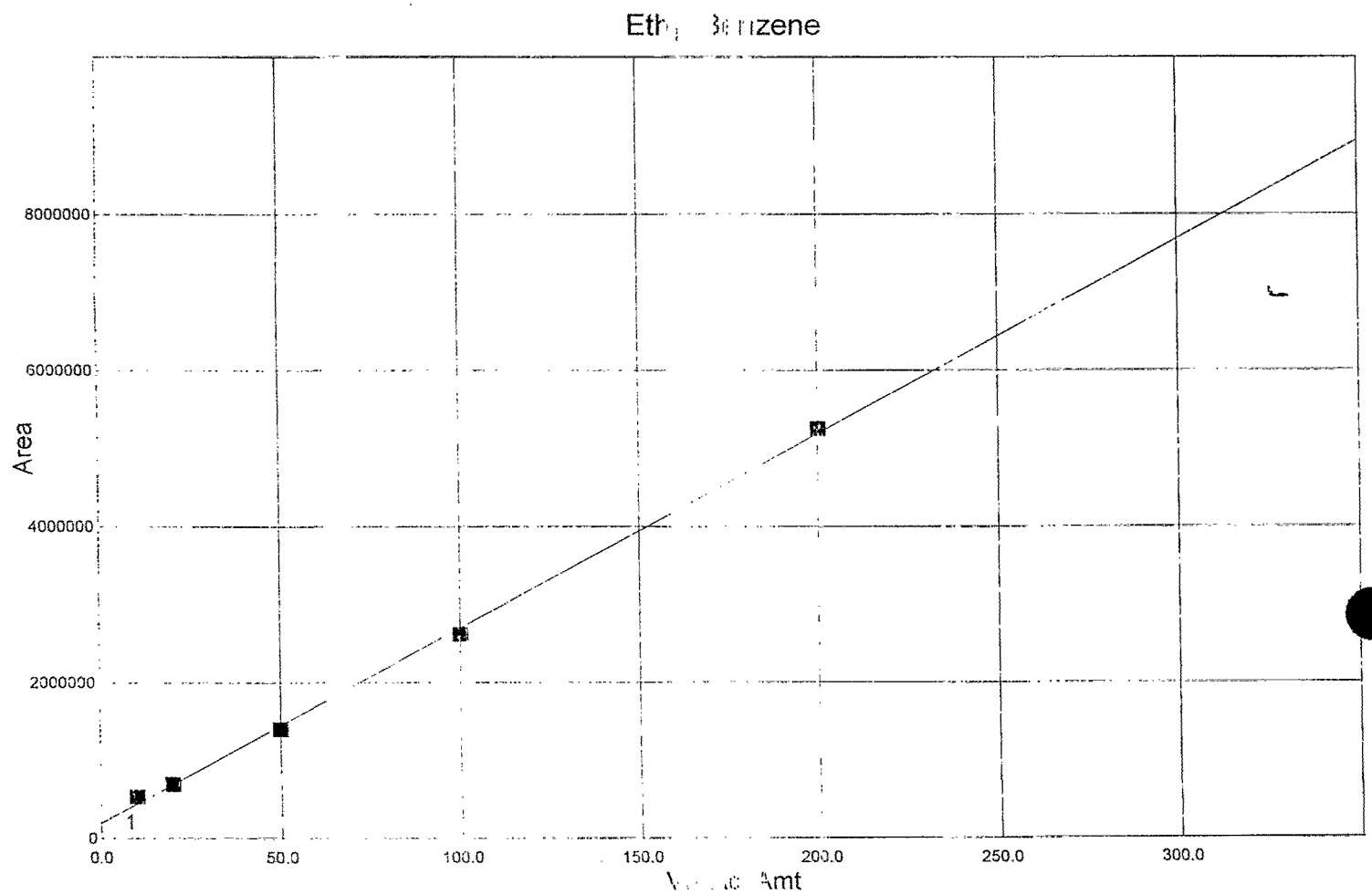


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]66643	0.533357	5.634	[illegible]6254.000	962638.759	-16384.759	-1.702
2	20.000000	1[illegible]76337	4.223663	26.772	[illegible]8088.000	1269339.068	-129751.068	-10.218
3	50.000000	[illegible]4[illegible]72517	0.028483	0.057	[illegible]0565.000	2191439.996	-874.996	-0.040
4	100.000000	10[illegible]58698	-8.658698	-7.969	[illegible]3437.000	3727441.542	265995.458	7.136
5	200.000000	19[illegible]26806	3.873194	1.975	[illegible]0460.000	6799444.635	-118984.635	-1.750

Fit Analysis Output for Method File: "C:\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:19 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998618
Calibration Curve = (207055.325041) + (24965.12[illegible]

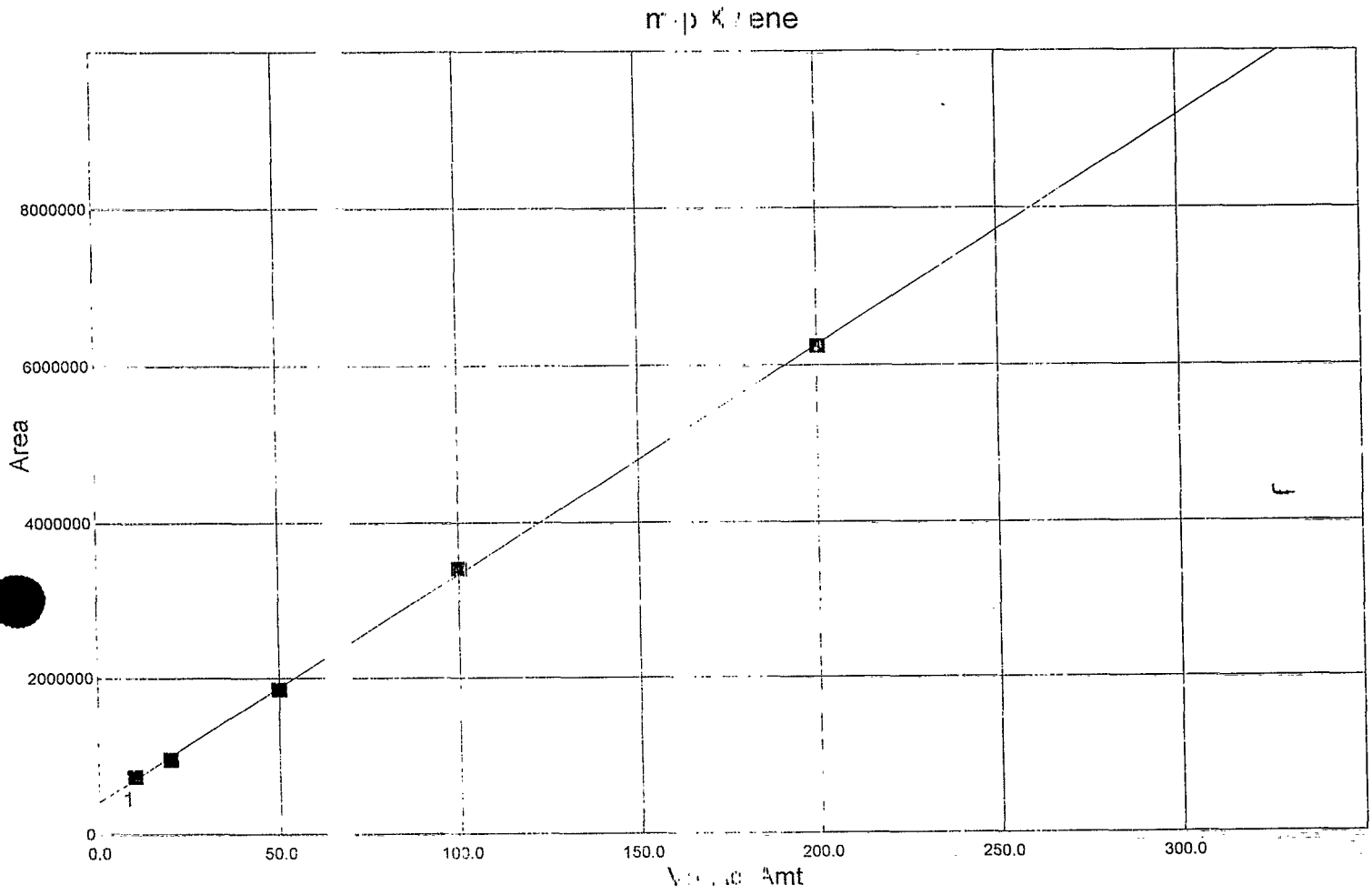


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1.93888	-3.493888	-25.892	13932.000	456706.624	87225.376	19.099
2	20.000000	0.019991	-0.019991	-0.100	16857.000	706357.924	499.076	0.071
3	50.000000	4.186299	0.113701	4.424	1[illegible]543.000	1455311.822	-52768.822	-3.626
4	100.000000	9.496180	3.503820	3.631	16095.000	2703568.318	-87473.318	-3.235
5	200.000000	20.103642	-2.103642	-1.041	[illegible]599.000	5200081.312	52517.688	1.010

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:19 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.999541
Calibration Curve = (422455.767828) + (29221.77 [illegible]

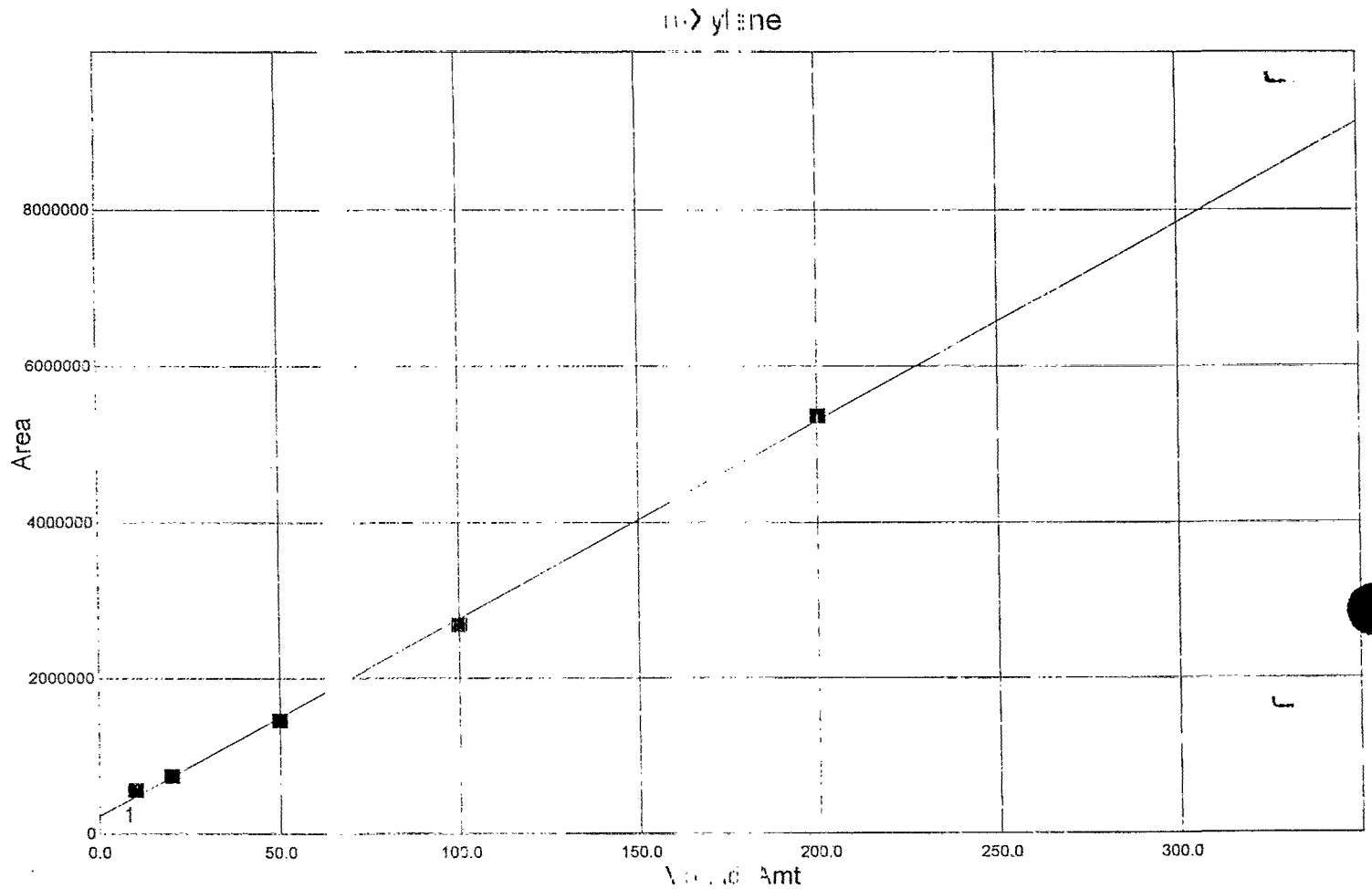


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]976550	-0.976550	-8.897	[illegible]3210.000	714573.483	28536.517	3.993
2	20.000000	1[illegible]893759	1.606241	8.733	[illegible]9954.000	1006391.197	-46937.197	-4.662
3	50.000000	4[illegible]069791	0.930209	1.896	[illegible]6362.000	1883544.342	-27182.342	-1.443
4	100.000000	10[illegible]31101	-2.431101	-2.373	[illegible]5674.000	3344632.915	71041.085	2.124
5	200.000000	19[illegible]28798	0.871202	0.438	[illegible]1352.000	6266310.063	-25458.063	-0.406

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:18 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.998867
Calibration Cur = (237558.446103) + (25380.63 [illegible]

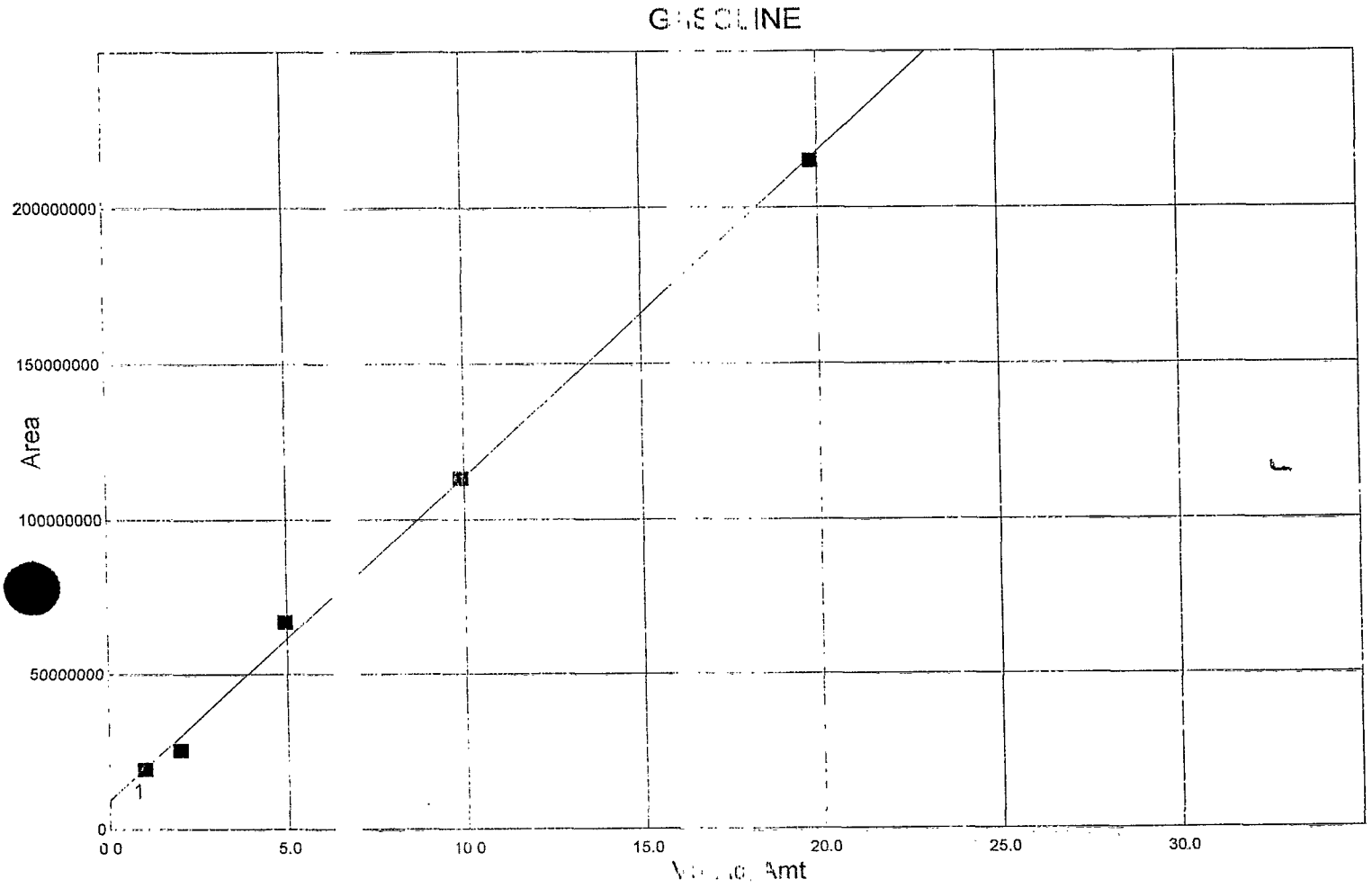


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]09704	-3.009704	-23.134	[illegible]17753.000	491364.808	76388.192	15.546
2	20.000000	2[illegible]22959	-0.222959	-1.103	[illegible]10830.000	748171.171	5658.829	0.759
3	50.000000	4[illegible]23875	1.874125	3.894	[illegible]9022.000	1506590.258	-47568.258	-3.157
4	100.000000	9[illegible]91530	3.308470	3.422	[illegible]11651.000	2775622.070	-83971.070	-3.025
5	200.000000	20[illegible]50003	-1.950003	-0.966	[illegible]13178.000	5313685.693	49492.307	0.931

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:17 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.997886
Calibration Cur = (9489239.723051) + (1044211 [illegible] X

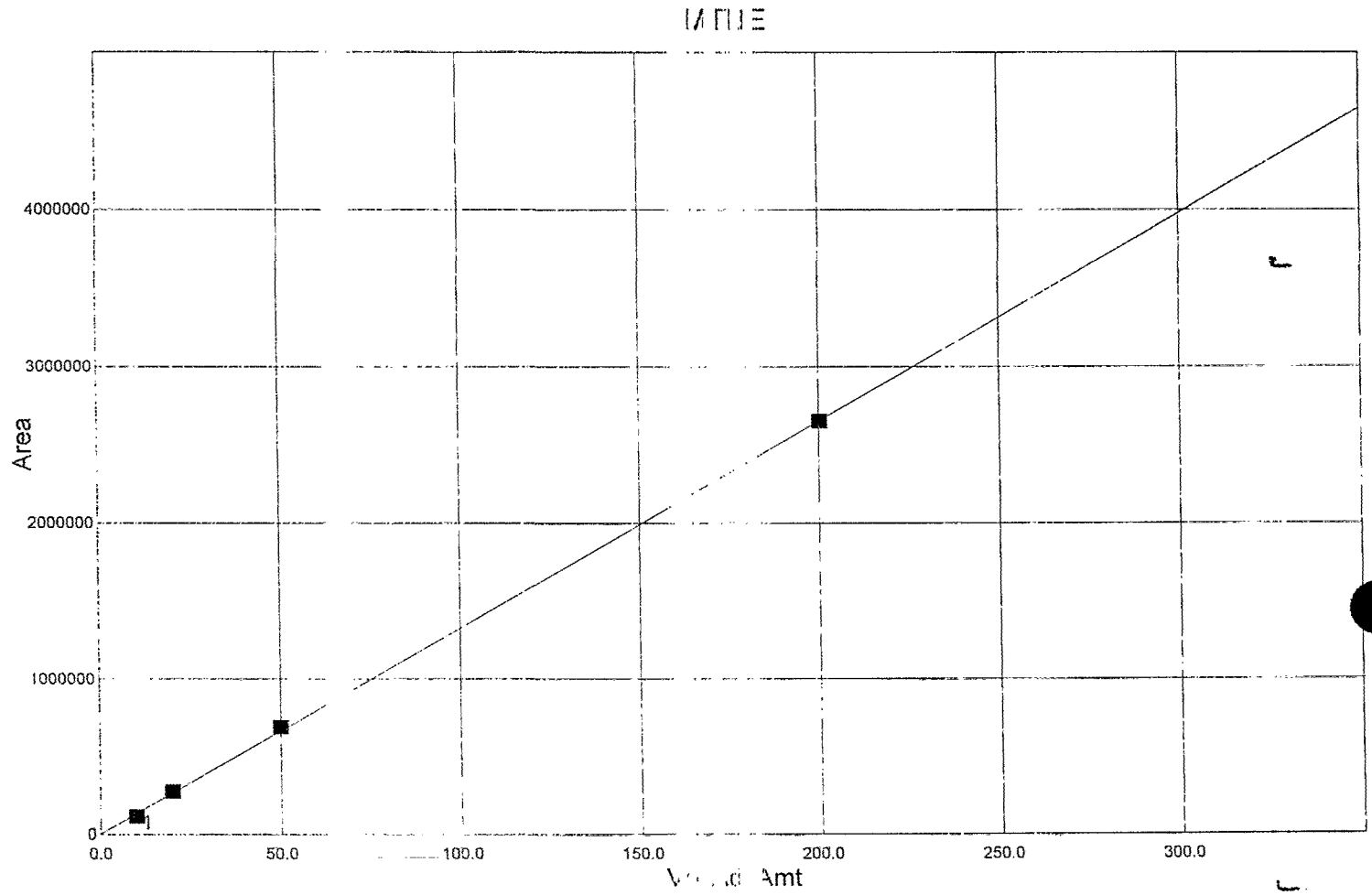


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]947440	0.042560	4.492	[illegible]12515.000	19826928.654	-444413.654	-2.241
2	1.980000	[illegible]546422	0.433578	28.037	[illegible]77149.000	30164617.585	-4527468.585	-15.009
3	4.950000	[illegible]194394	-0.544394	-9.908	[illegible]33310.000	61177684.379	5684625.621	9.292
4	9.900000	[illegible]944712	-0.044712	-0.450	[illegible]33020.000	112866129.035	466890.965	0.414
5	19.800000	1[illegible]887031	0.112969	0.574	[illegible]33384.000	216243018.347	-1179634.347	-0.546

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "MTBE"
Date: 2/18/98 Time: 10:13 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 1.999780
Calibration Cur = (5476.048316) + (13260.0527)

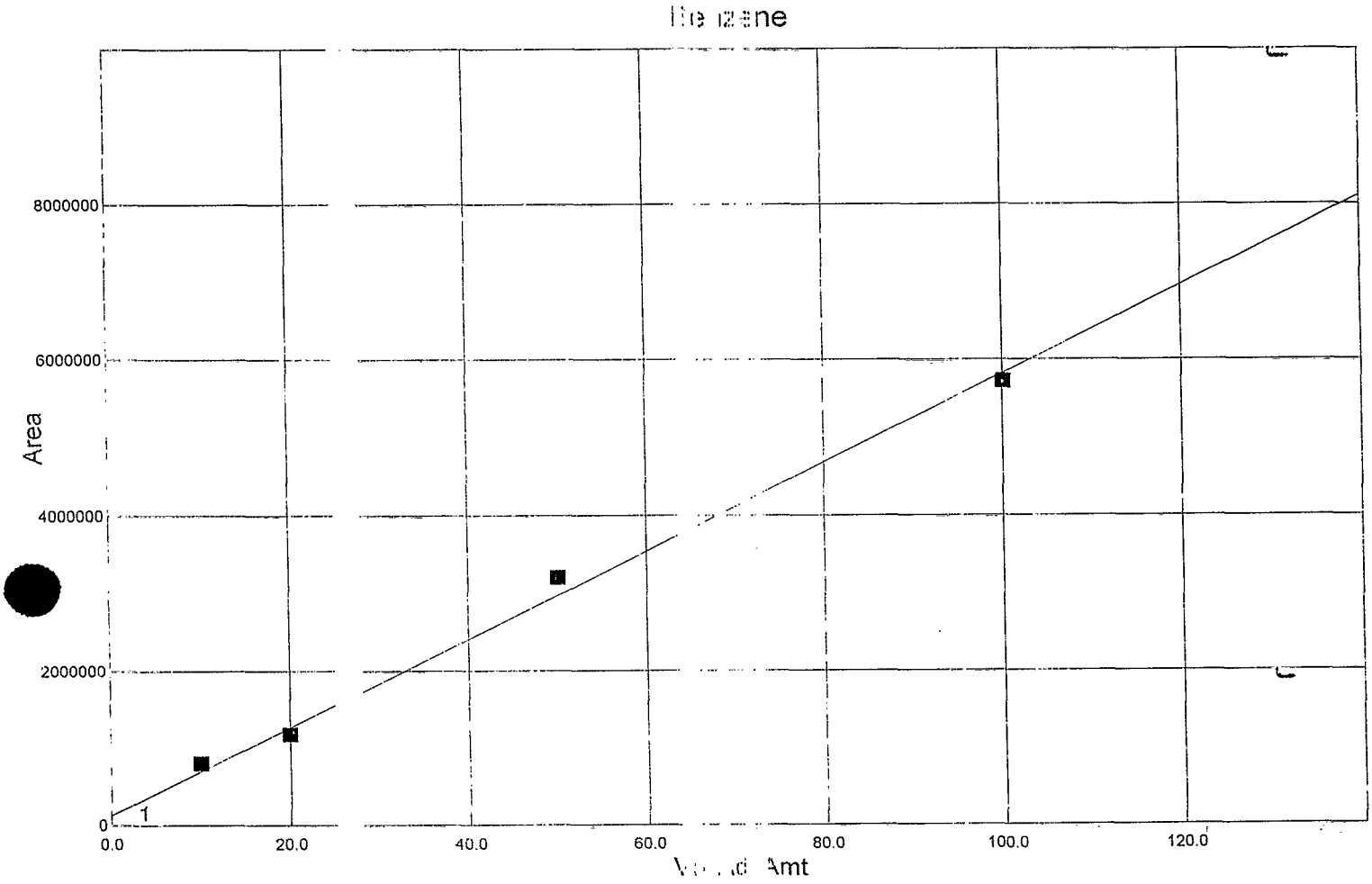


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	195136	1.504864	17.714	118122.000	138076.575	-19954.575	-14.452
2	20.000000	2[illegible]88602	-0.[illegible]583602	-2.859	278482.000	270677.102	7804.898	2.883
3	50.000000	5[illegible]50469	-1.750469	-3.383	661690.000	668178.684	23211.316	3.472
5	200.000000	19[illegible]78766	0.421234	0.211	2[illegible]1901.000	2657486.590	-5585.590	-0.210

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:13 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 1.995256
Calibration Cur = (134543.049080) + (56953.62[illegible] [illegible] X

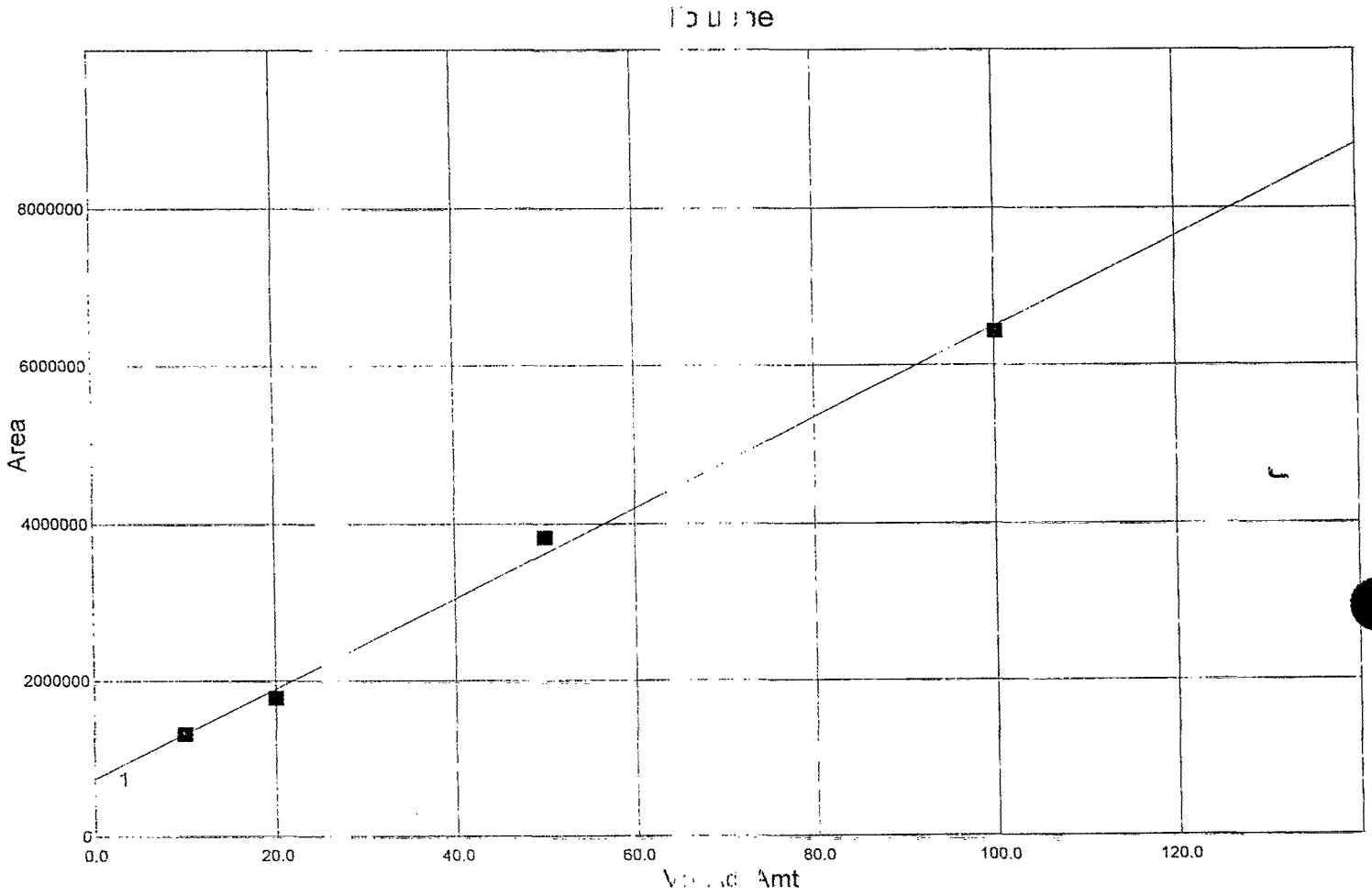


Level Name	Observed X-Value	Calculated Y-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]69242	-1.769242	-15.033	[illegible]4844.000	704079.258	100764.742	14.312
2	20.000000	1[illegible]34578	1.565422	8.492	[illegible]34459.000	1273615.466	-89156.466	-7.000
3	50.000000	5[illegible]44693	-4.044693	-7.484	[illegible]12584.000	2982224.092	230359.908	7.724
4	100.000000	9[illegible]13814	1.886186	1.922	[illegible]22480.000	5829905.135	-107425.135	-1.843

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:13 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.996421
Calibration Curve = (750593.551020) + (57543.13[illegible]) X

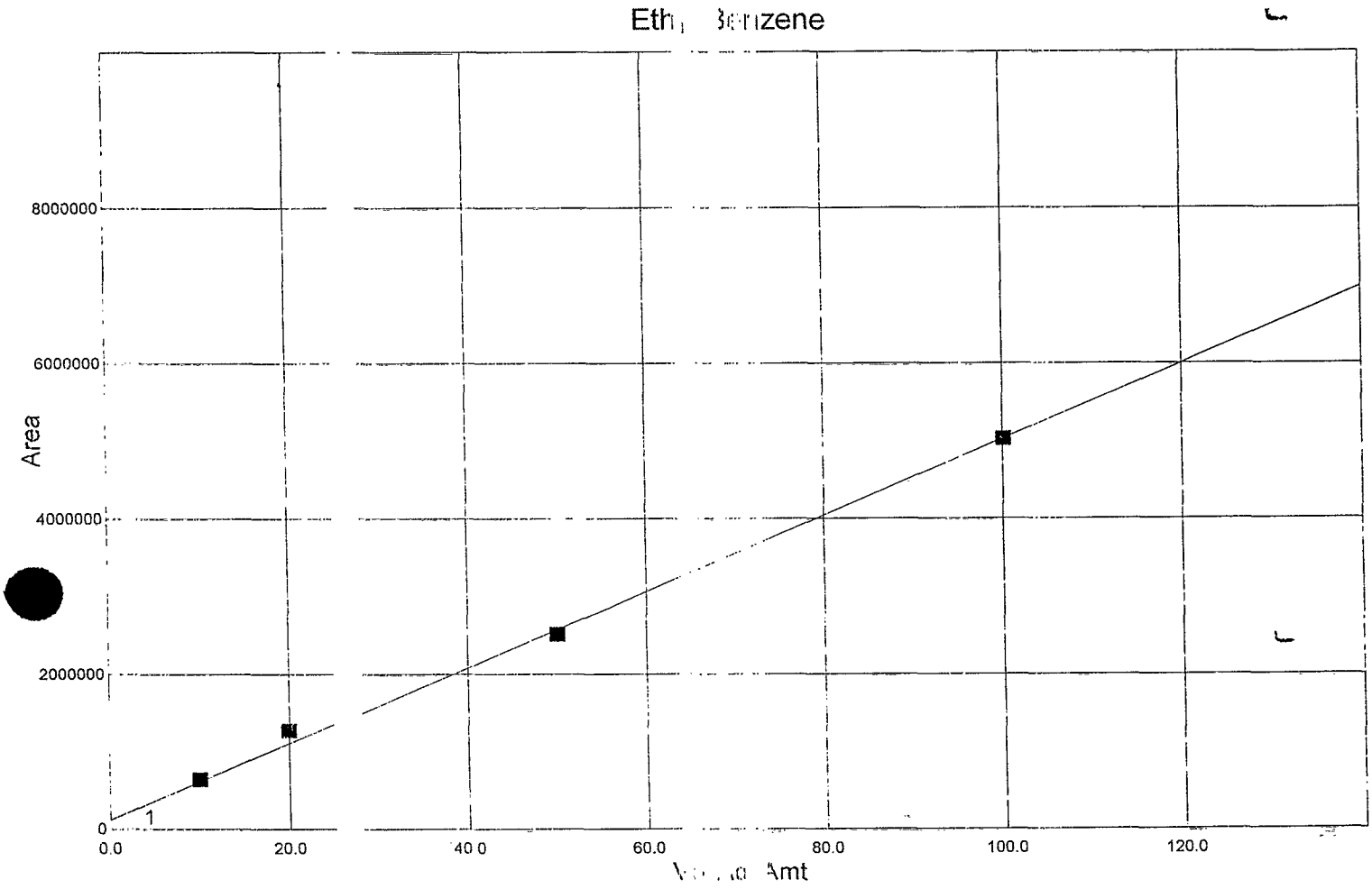


Level Name	Observed X-Value	Calculated Y-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]021008	0.078992	0.796	[illegible]1539.000	1326084.929	-4545.929	-0.343
2	20.000000	1[illegible]949677	2.050323	11.423	[illegible]3582.000	1901576.306	-117994.306	-6.205
3	50.000000	5[illegible]022702	-3.422702	-6.407	[illegible]5024.000	3628050.439	196973.561	5.429
4	100.000000	9[illegible]06613	1.293387	1.310	[illegible]1074.000	6505507.327	-74433.327	-1.144

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:13 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = .997039
Calibration Cur = (123449.012270) + (49023.60[illegible] X)

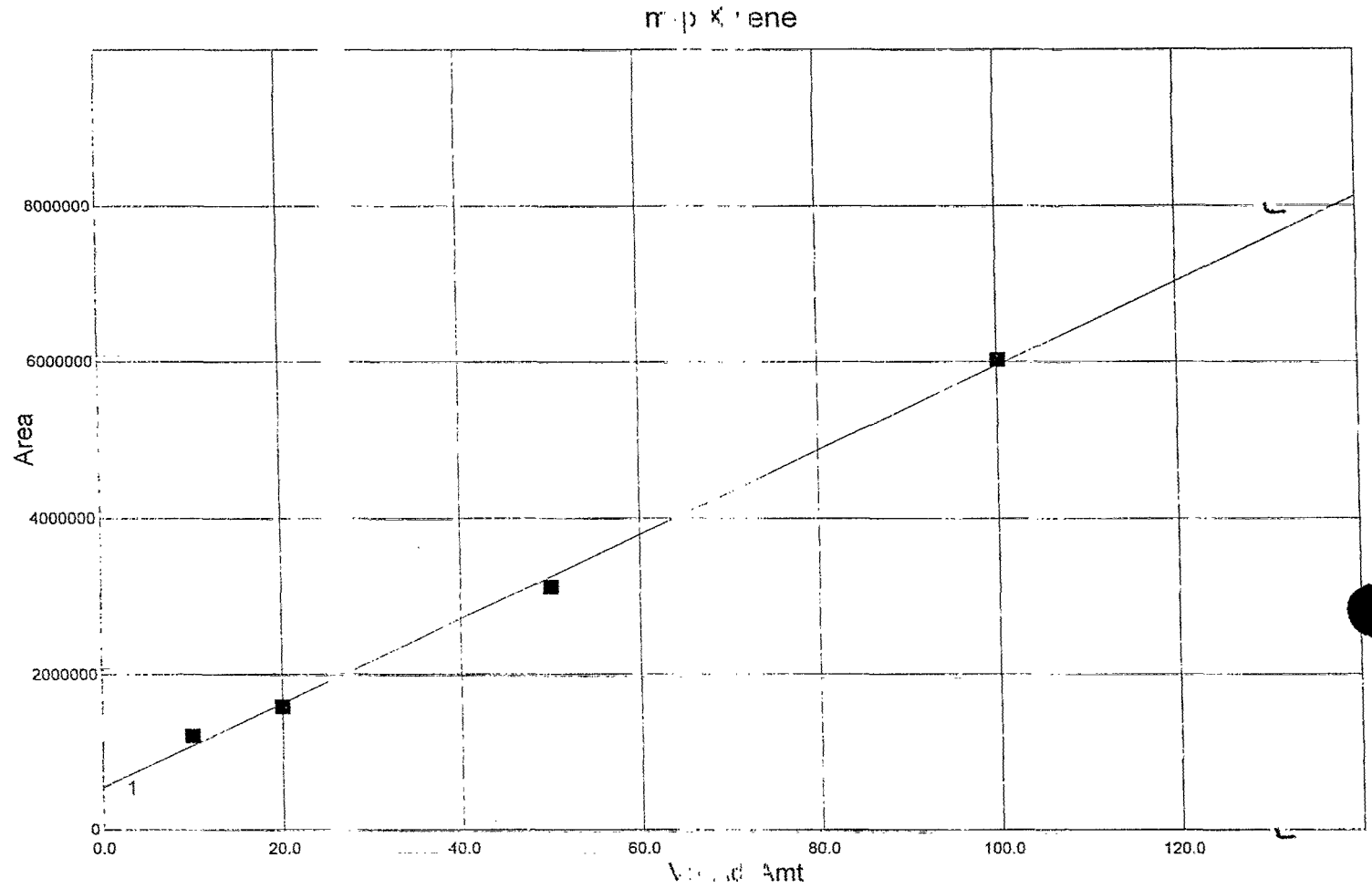


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]26276	-0.526276	-5.000	[illegible]9485.000	613585.064	25799.936	4.204
2	20.000000	3[illegible]0654	-3.340654	-14.313	[illegible]7692.000	1103921.117	163770.883	14.835
3	50.000000	4[illegible]43967	1.256033	2.577	[illegible]13054.000	2574629.273	-61575.273	-2.392
4	100.000000	9[illegible]07258	0.092742	0.093	[illegible]11263.000	5025809.534	-4546.534	-0.090

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:13 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .997343
Calibration Curve = (552212.183673) + (54091.44 [illegible]

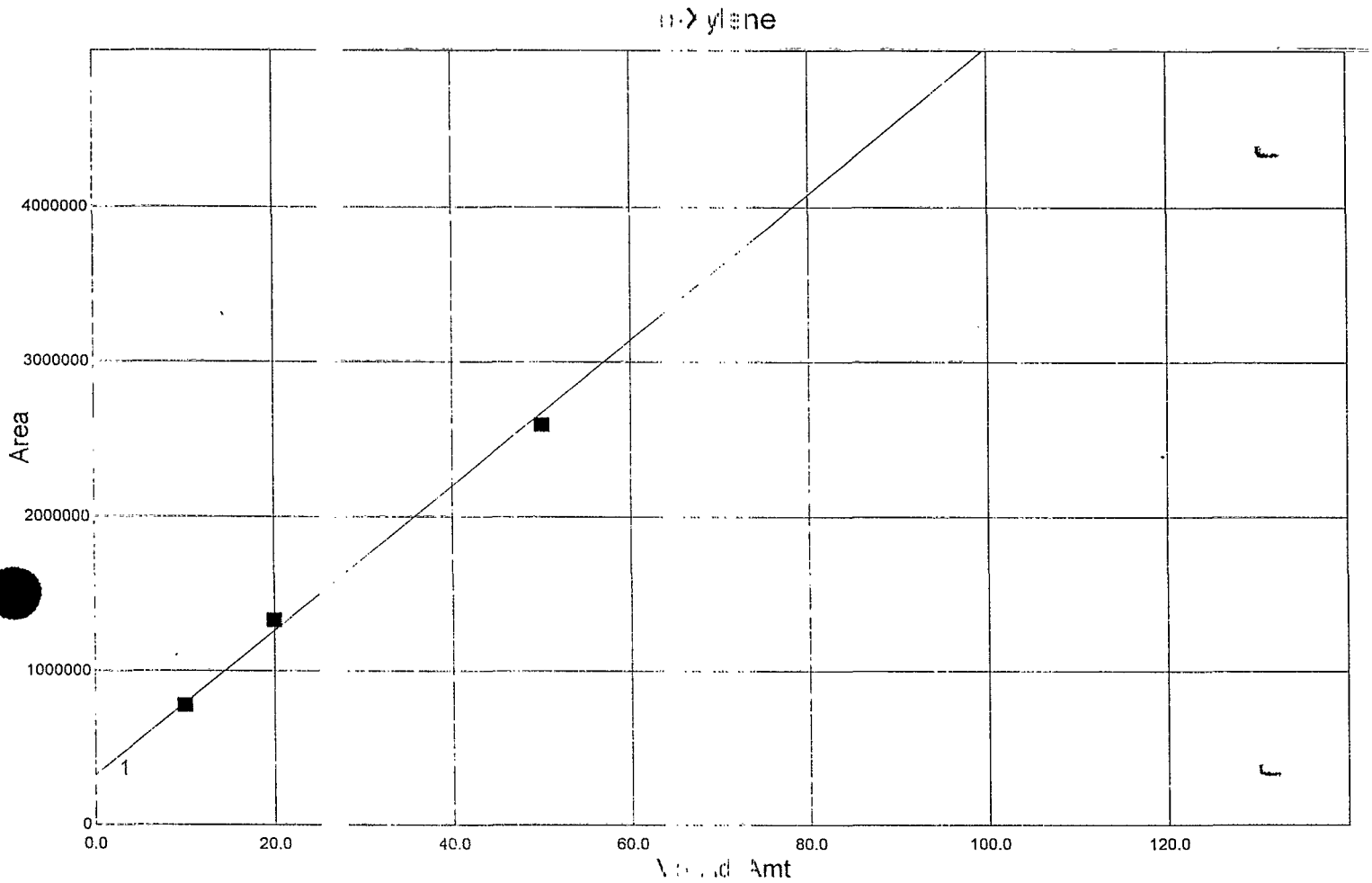


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].79003	-2.173003	-17.895	[illegible]10938.000	1093126.643	117811.357	10.777
2	20.000000	1[illegible]87137	0.912663	4.793	[illegible]4663.000	1634041.102	-49378.102	-3.022
3	50.000000	4[illegible]40175	2.459825	5.174	[illegible]23729.000	3256784.480	-133055.480	-4.085
4	100.000000	10[illegible].94685	-1.194685	-1.181	[illegible]5979.000	5961356.776	64622.224	1.084

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:14 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .998900
Calibration Cur = (324351.071429) + (47002.39[illegible]

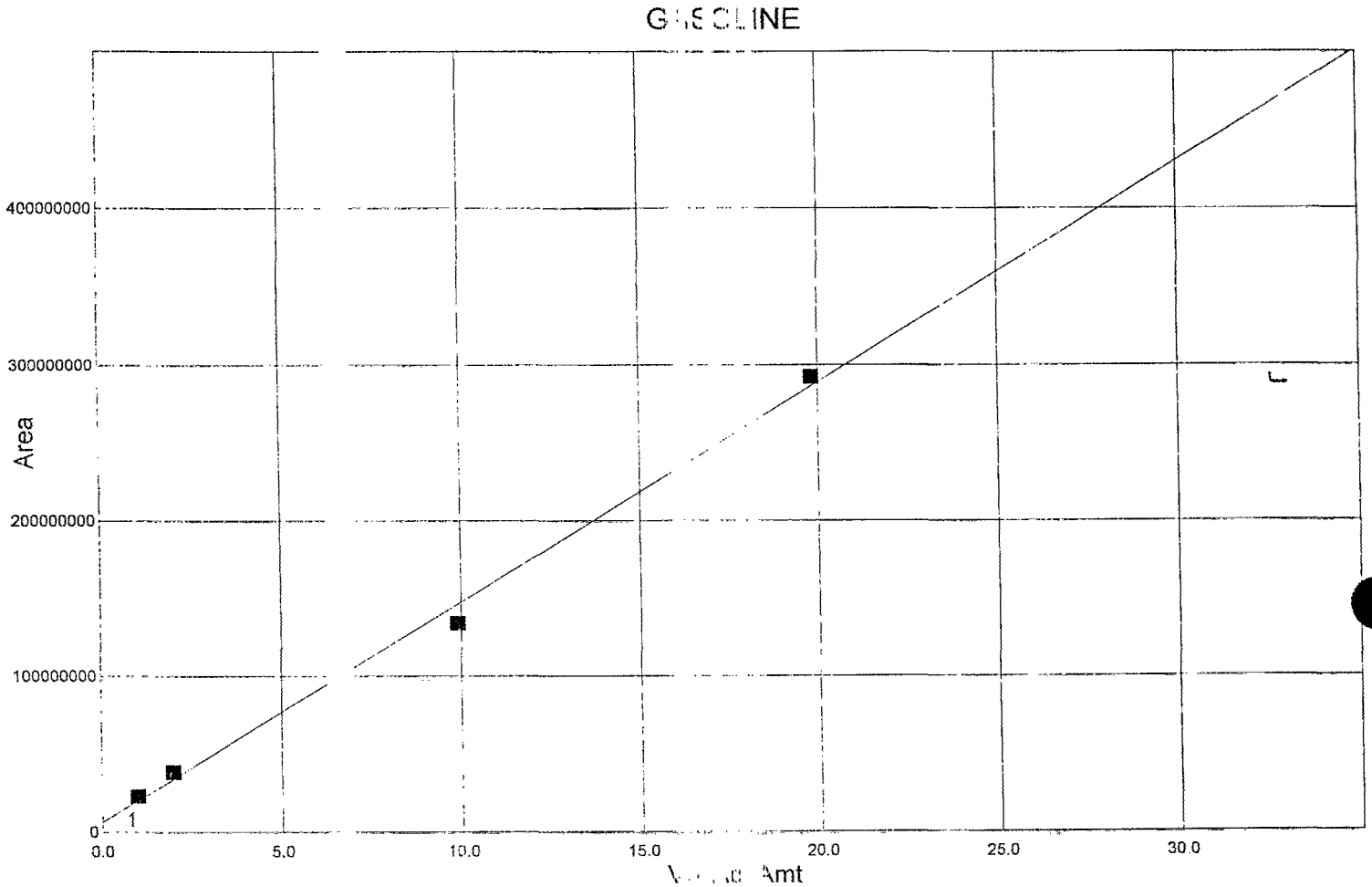


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]65996	0.334004	3.455	[illegible]8676.000	784375.000	-15699.000	-1.976
2	20.000000	[illegible]35205	-1.435205	-6.696	[illegible]1357.000	1264398.929	67458.071	5.335
3	50.000000	4[illegible]04880	1.695120	3.509	[illegible]4796.000	2674470.714	-79674.714	-2.979
4	100.000000	10[illegible]93920	-0.593920	-0.590	[illegible]2506.000	5024590.357	27915.643	0.556

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:14 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.995350
Calibration Cur = (6818405.118153) + (1412713 [illegible] X



Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]72489	-0.192489	-15.564	[illegible]316.000	20804265.437	2578050.563	12.292
2	1.980000	[illegible]78333	-0.298333	-13.094	[illegible]722.000	34790125.756	4214596.244	12.114
4	9.900000	[illegible]16270	0.883730	9.802	[illegible]439.000	146677008.308	-12484569.308	-8.512
5	19.800000	[illegible]02907	-0.402907	-1.994	[illegible]7534.000	286535511.498	5691922.502	1.986

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 02/06/98 To 02/07/98

Date(s) received: 02/07/98 To 02/07/98

Date(s) reported: 02/09/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD. SAMPLES COLLECTED ON 02-06-98 WERE RECEIVED CHILLED AND SEALED; SAMPLES COLLECTED ON 02/07/98 WERE RECEIVED AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: B-1936

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-7-98	2-6-98	2-7-98	2-7-98	2-7-98
		DATE EXTRACTED	2-7-98	2-6-98	2-7-98	2-7-98	2-7-98
		LAB SAMPLE I.D.	MB	MB	B1936-1	B1936-2	B1936-3
		CLIENT SAMPLE I.D.	--	--	B7-6.0	B7-9.5	B7-14.5
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	0.002	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	99	86	90	94	93
Trifluorotoluene (TFT)	100 ng	65-125	104	118	87	97	96

Project No: B-1936

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		DATE EXTRACTED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		LAB SAMPLE I.D.	B1936-4	B1936-5	B1936-6	B1936-7	B1936-8
		CLIENT SAMPLE I.D.	B7-19.25	B7-24.75	B7-30.0	B7-34.75	B7-39.75
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	91	100	89	90	91
Trifluorotoluene (TFT)	100 ng	65-125	101	97	100	96	99

(RWQCB LabForm10A;Ver12/94)

Project No: B-1936

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		DATE EXTRACTED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		LAB SAMPLE I.D.	B1936-9	B1936-10	B1936-11	B1936-12	B1936-13
		CLIENT SAMPLE I.D.	B7-45.0	B7-50.0	B7-55.0	B7-59.25	B7-64.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	80	87	100	102	99
Trifluorotoluene (TFT)	100 ng	65-125	93	100	91	104	99

(RWQCB LabForm10A;Ver12/9

Project No: B-1936

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		DATE EXTRACTED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		LAB SAMPLE I.D.	B1936-14	B1936-15	B1936-16	B1936-17	B1936-18
		CLIENT SAMPLE I.D.	B7-69.5	B7-74.4	B7-79.3	B7-86.0	B7-90.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	102	101	108	103	100
Trifluorotoluene (TFT)	100 ng	65-125	103	87	105	99	93

(RWQCB LabForm10A;Ver12/94)

Project No: B-1936

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		DATE EXTRACTED	2-7-98	2-7-98	2-7-98	2-7-98	2-7-98
		LAB SAMPLE I.D.	B1936-19	B1936-20	B1936-21	B1936-22	B1936-23
		CLIENT SAMPLE I.D.	B7-94.4	B7-99.5	B7-104.0	B7-109.25	B7-114.5
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	86	97	106	102	100
Trifluorotoluene (TFT)	100 ng	65-125	99	95	106	104	97

Project No: B-1936

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:9-28-97	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT #LA59451)	LOT NUMBER: 092897-8
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	5.40	100 ng	6836059	62939	+8.6	+/-20%
Toluene	PID	8.40	100 ng	6351182	59808	+6.2	+/-20%
Ethylbenzene	PID	11.17	100 ng	5283531	50665	+4.3	+/-20%
Total Xylenes	PID	11.4/12.05	100/100 ng	6128231/5294467	57949/49806	+5.8/+6.3	+/-20%
Gasoline	PID	NA	9.90 ng	218970789	21094800	+4.9	+/-20%
MTBE	PID	3.24	100 ng	3033393	34518	-12.1	+/-20%

Project No: B-1936

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:2-6-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #: 092897-8	
LAB SAMPLE I.D.: B7-64.25;B7-104.0	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	200	187.3	94	200	190.6	95	1.7	65-125	20%
o-Xylene (GC1)	ND	155	142.4	92	155	153.3	99	7.3	65-125	20%
Toluene (GC2)	ND	200	189.9	95	200	191.3	96	0.7	65-125	20%
o-Xylene(GC2)	ND	155	146.2	94	155	153.2	99	2.3	65-125	20%
Gasoline (GC1)	ND	9.90	9.52	86	9.90	10.26	104	7.5	65-125	20%
Gasoline (GC2)	ND	9.90	9.89	100	9.90	10.66	108	7.5	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

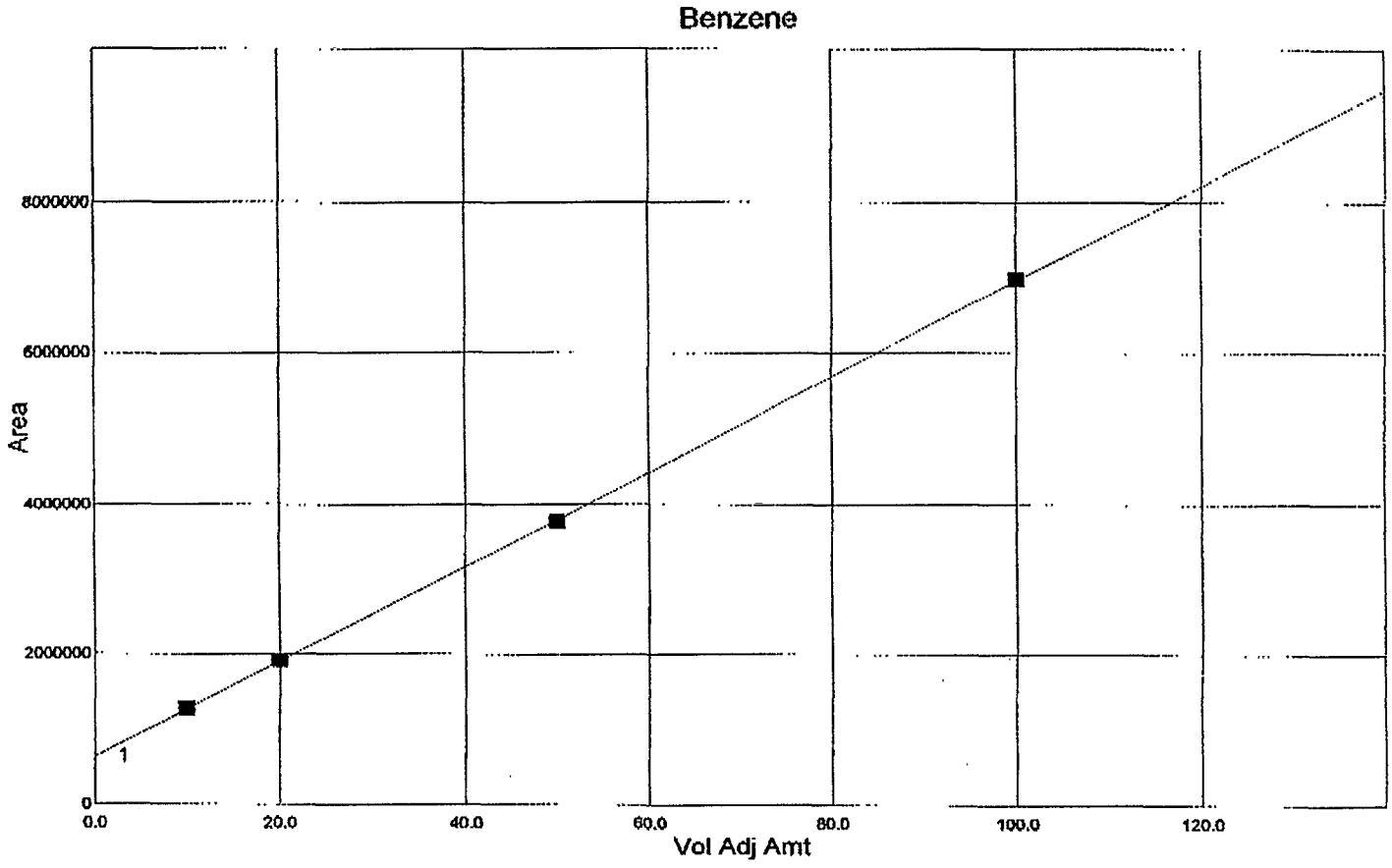
DATE PERFORMED:2-6-98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.: LCS 8020+MTBE; LCS GASOLINE
LOT NUMBER: 013098-2B	
DATE OF SOURCE 1/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	91.4	91	80-120
Toluene	100 ng	88.1	88	80-120
Ethylbenzene	100 ng	82.7	83	80-120
m,p-Xylene	200 ng	121.4	81	80-120
o-Xylene	100 ng	85.1	85	80-120
(GC2)	--	--	--	--
Benzene	100 ng	108.3	108	80-120
Toluene	100 ng	105.7	106	80-120
Ethylbenzene	100 ng	102.6	103	80-120
m,p-Xylene	100 ng	135.2	90	80-120
o-Xylene	100 ng	104.2	104	80-120
Gasoline (GC1)	9.90 ng	10.38	105	80-120
Gasoline (GC2)	9.90 ng	11.23	113	80-120
MTBE (GC1)	100 ng	87.9	88	80-120
MTBE (GC2)	100 ng	71.5	72	80-120

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 3/15/98 Time: 11:42 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor - 1.0 (No Weighting) r^2 = 0.999946
Calibration Curve = (653783.489796) + (62938.522449)X

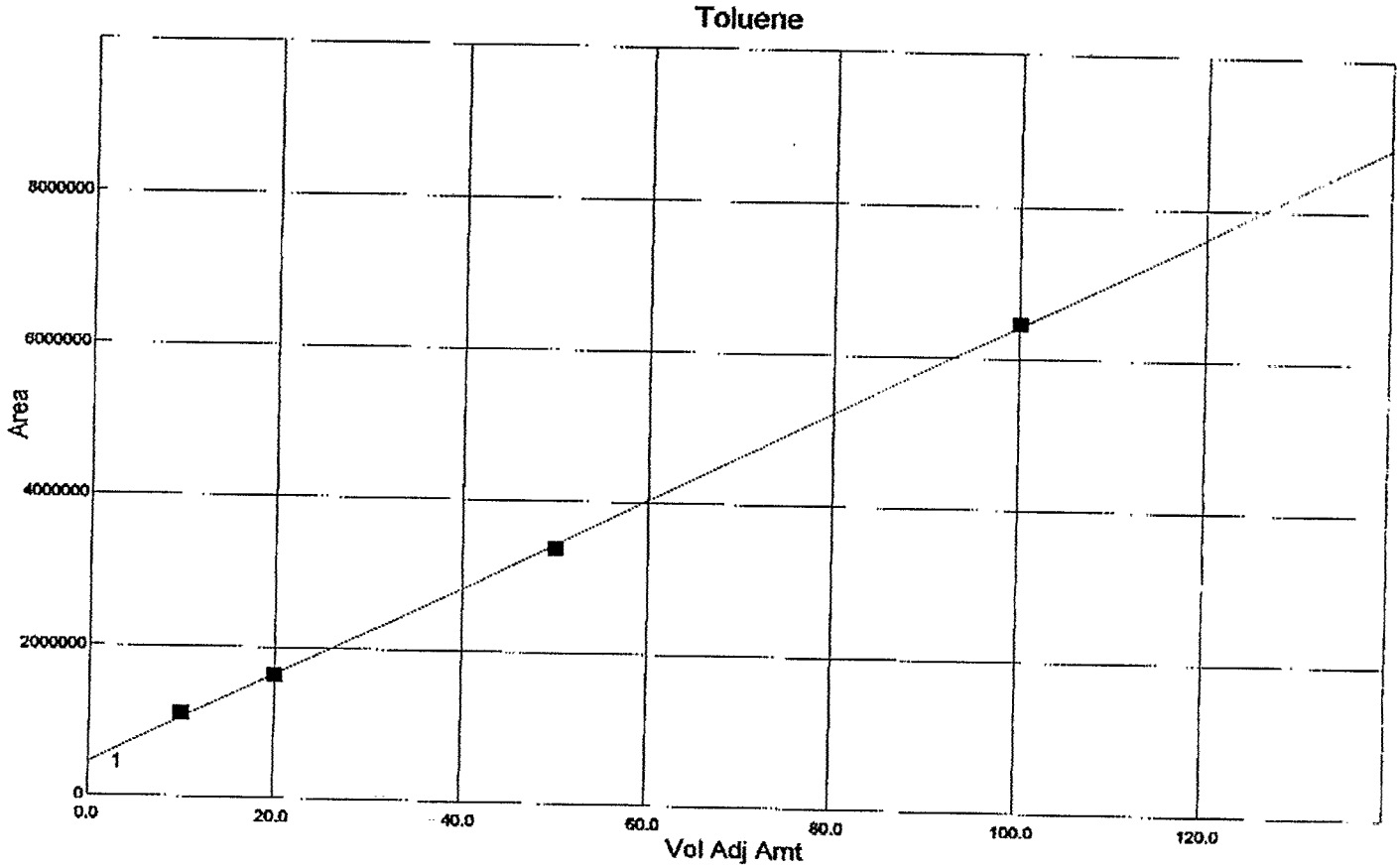


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.155394	-0.155394	-1.530	1292949.000	1283168.714	9780.286	0.762
2	20.000000	20.101131	-0.101131	-0.503	1918919.000	1912553.939	6365.061	0.333
3	50.000000	49.558480	0.441520	0.891	3772921.000	3800709.612	-27788.612	-0.731
4	100.000000	100.184994	-0.184994	-0.185	6959279.000	6947635.735	11643.265	0.168

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 3/15/98 Time: 11:43 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999592
Calibration Curve = (451460.571429) + (59808.142857)X

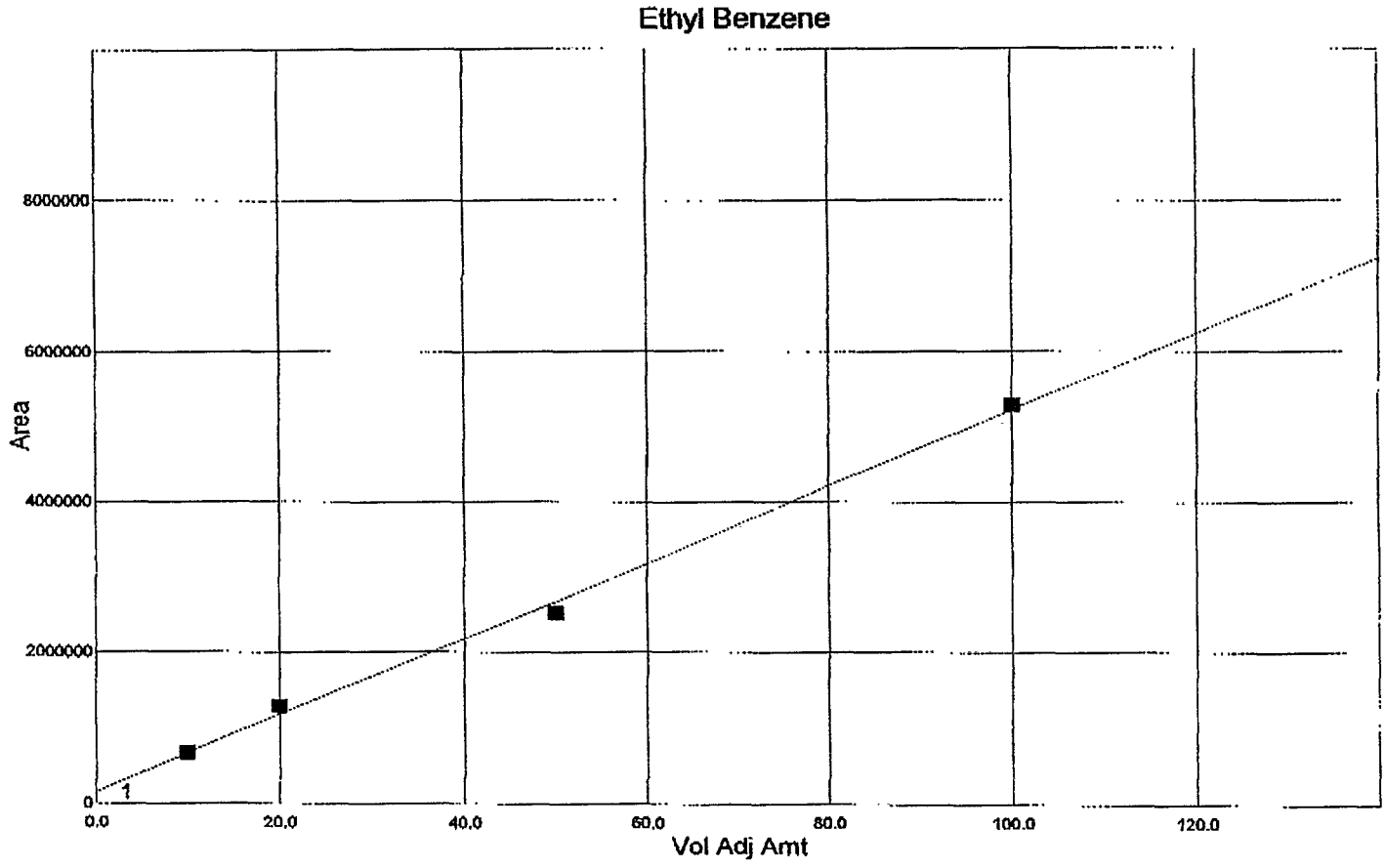


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.882221	-0.882221	-8.107	1102306.000	1049542.000	52764.000	5.027
2	20.000000	19.579599	0.420401	2.147	1622480.000	1647623.429	-25143.429	-1.526
3	50.000000	49.084644	0.915356	1.865	3387122.000	3441867.714	-54745.714	-1.591
4	100.000000	100.453536	-0.453536	-0.451	6459400.000	6432274.857	27125.143	0.422

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.996983
Calibration Curve = (164567.724490) + (50664.906122)X

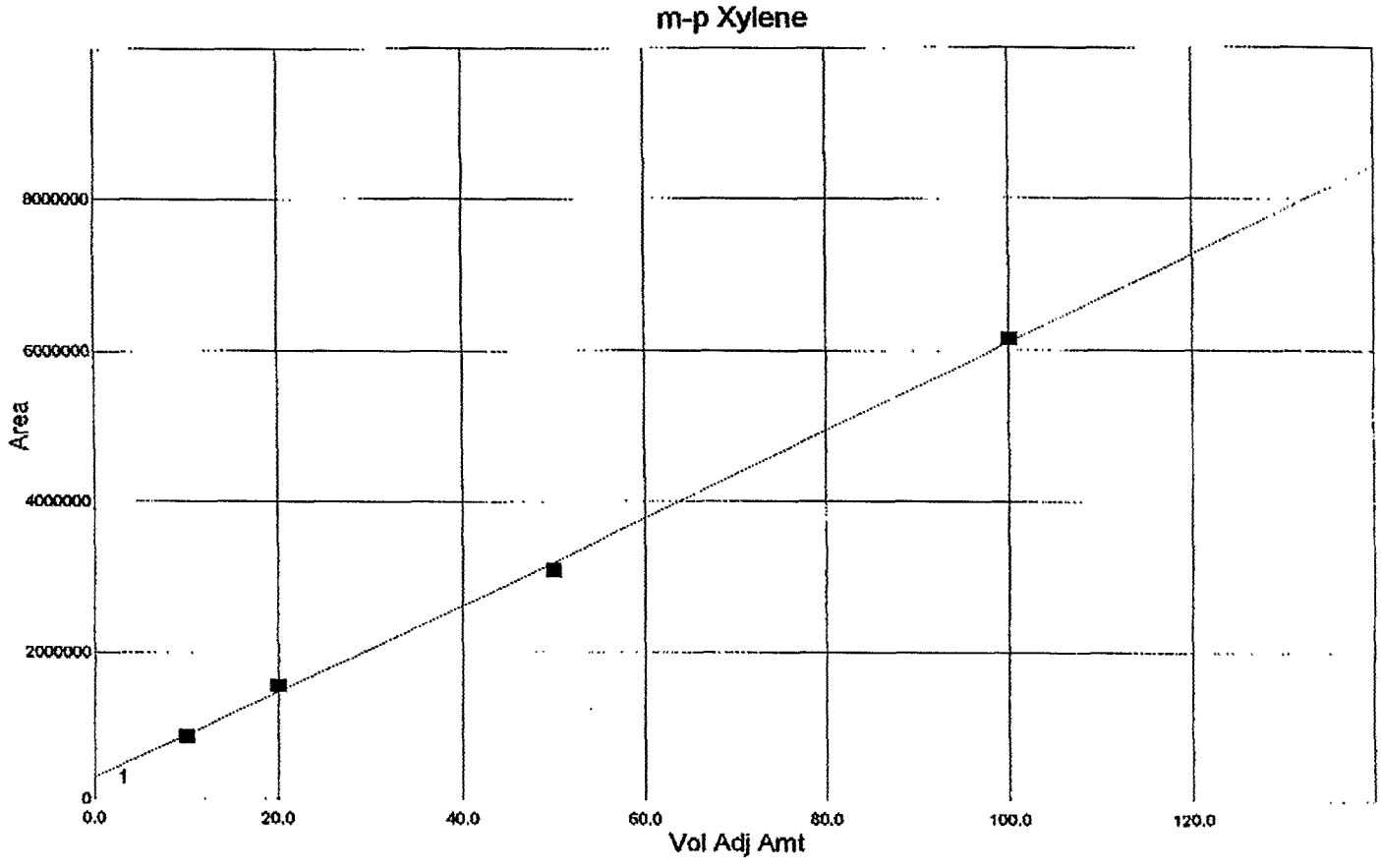


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.991122	0.008878	0.089	670767.000	671216.786	-449.786	-0.067
2	20.000000	21.952518	-1.952518	-8.894	1276790.000	1177865.847	98924.153	8.399
3	50.000000	46.891951	3.108049	6.628	2540344.000	2697813.031	-157469.031	-5.837
4	100.000000	101.164409	-1.164409	-1.151	5290053.000	5231058.337	58994.663	1.128

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998724
Calibration Curve = (312224.020408) + (57948.855102)X

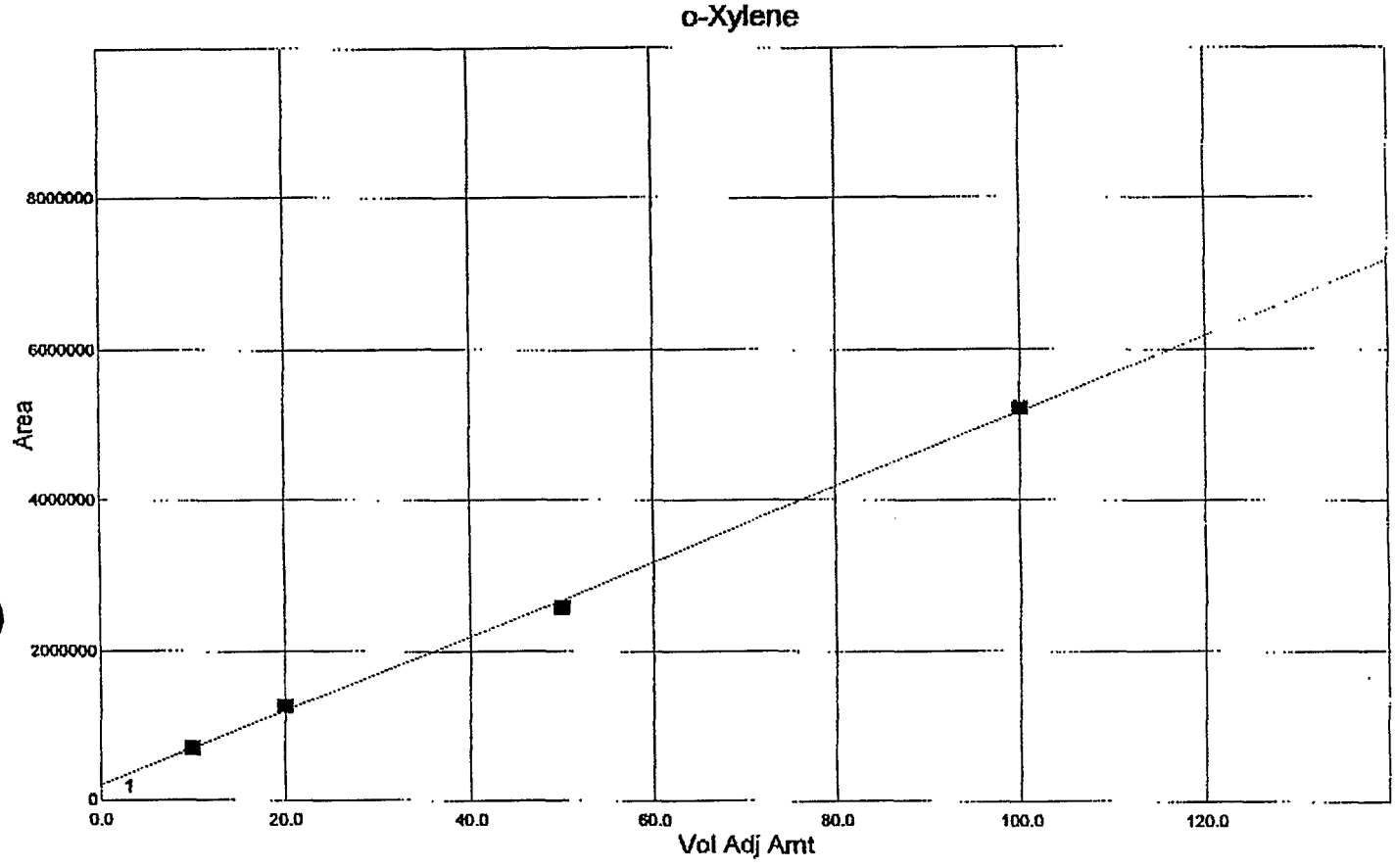


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.762815	0.237185	2.429	877968.000	891712.571	-13744.571	-1.541
2	20.000000	21.455540	-1.455540	-6.784	1555548.000	1471201.122	84346.878	5.733
3	50.000000	48.098068	1.901932	3.954	3099452.000	3209666.776	-110214.776	-3.434
4	100.000000	100.683576	-0.683576	-0.679	6146722.000	6107109.531	39612.469	0.649

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998841
Calibration Curve = (209684.704082) + (49806.351020)X

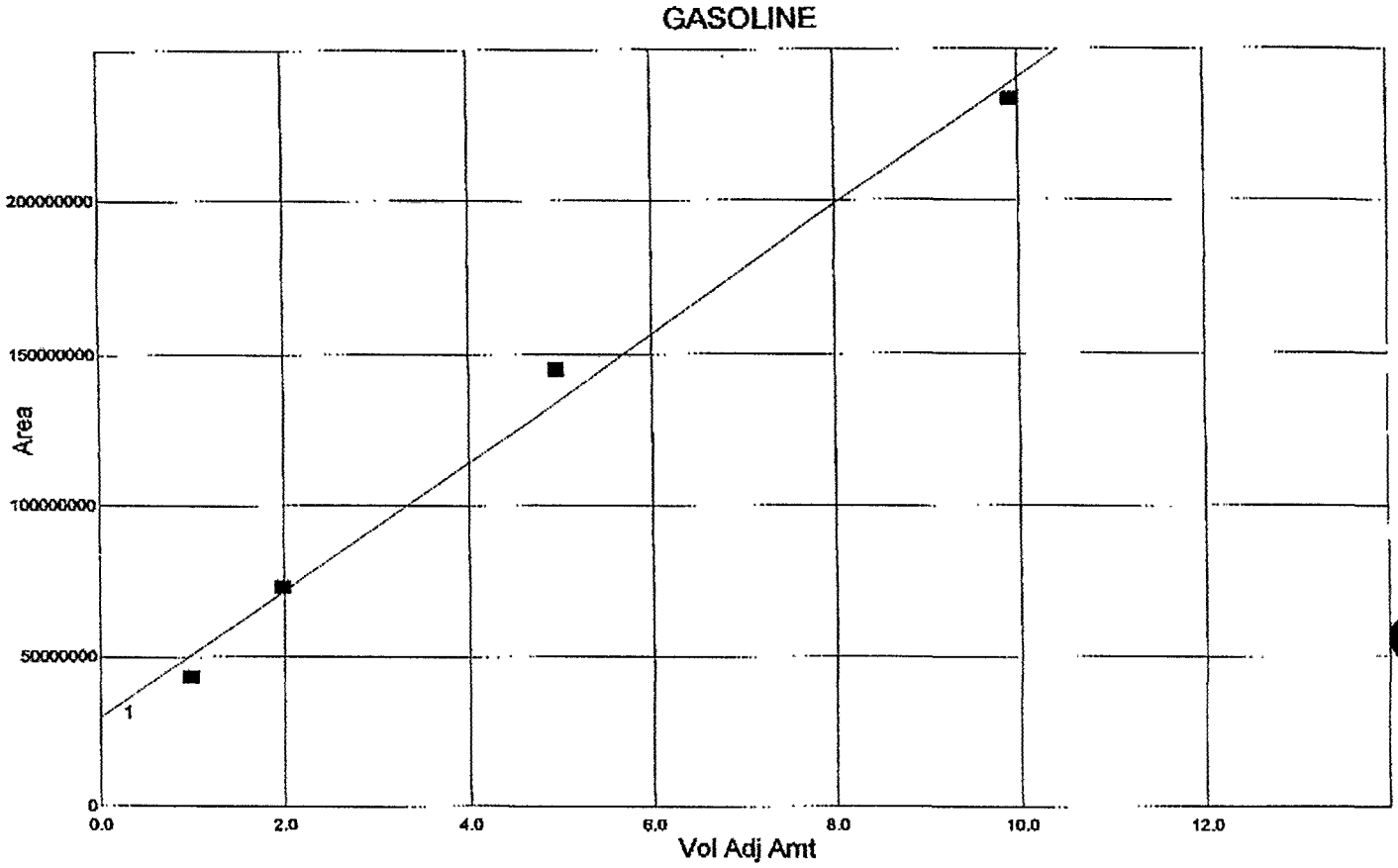


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.087334	-0.087334	-0.866	712098.000	707748.214	4349.786	0.615
2	20.000000	21.127613	-1.127613	-5.337	1261974.000	1205811.724	56162.276	4.658
3	50.000000	48.038619	1.961381	4.083	2602313.000	2700002.255	-97689.255	-3.618
4	100.000000	100.746435	-0.746435	-0.741	5227497.000	5190319.806	37177.194	0.716

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 3/15/98 Time: 11:43 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.990669
Calibration Curve = (29882801.275510) + (21094761.554319)X

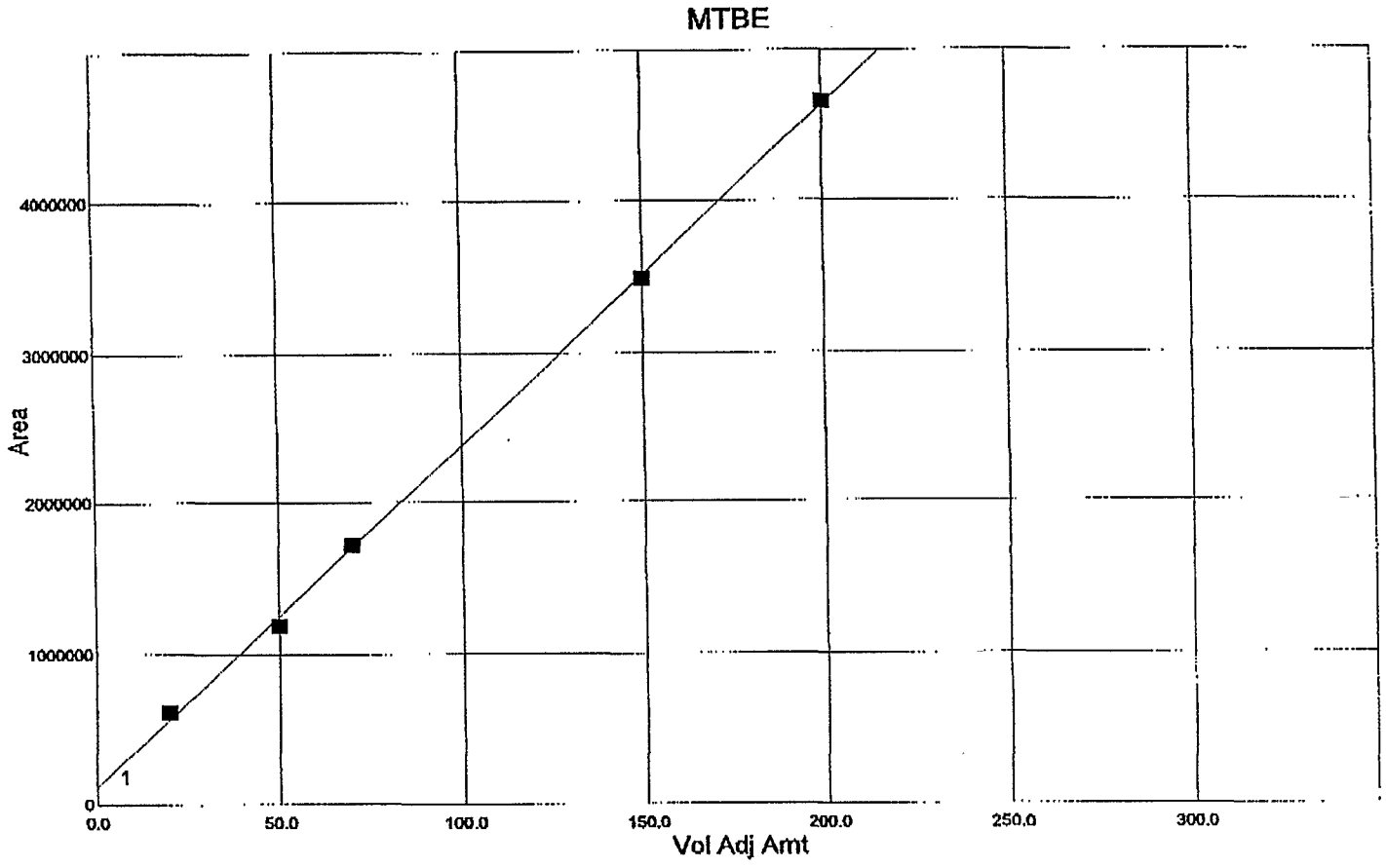


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	0.636249	0.353751	55.599	43304320.000	50766615.214	-7462295.214	-14.699
2	1.980000	2.056167	-0.076167	-3.704	73257150.000	71650429.153	1606720.847	2.242
3	4.950000	5.464885	-0.514885	-9.422	145163249.000	134301870.969	10861378.031	8.087
4	9.900000	9.662699	0.237301	2.456	233715137.000	238720940.663	-5005803.663	-2.097

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "MTBE"
Date: 3/15/98 Time: 11:45 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999344
Calibration Curve = (123760.155296) + (22579.378007)X

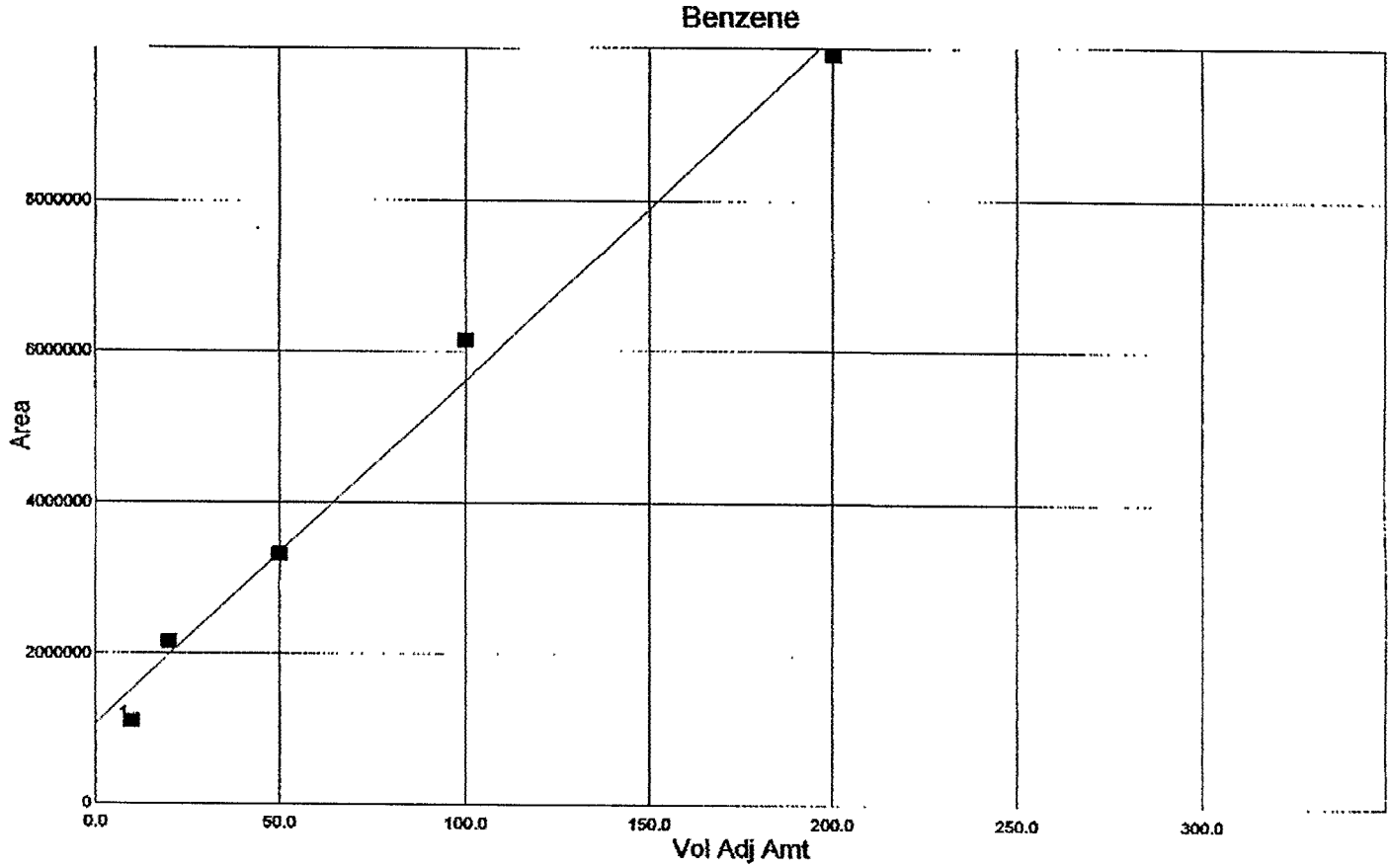


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	20.000000	22.053258	-2.053258	-9.310	621709.000	575347.715	46361.285	8.050
2	50.000000	47.305415	2.694585	5.696	1191887.000	1252729.056	-60842.056	-4.857
3	70.000000	70.722535	-0.722535	-1.022	1720631.000	1704316.616	16314.384	0.957
5	150.000000	148.813437	1.186563	0.797	3483875.000	3510666.856	-26791.856	-0.763
6	200.000000	201.105356	-1.105356	-0.550	4664594.000	4639635.757	24958.243	0.538

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Benzene"
Date: 3/15/98 Time: 11:45 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.989102
Calibration Curve = (1085449.860697) + (45344.222886)X

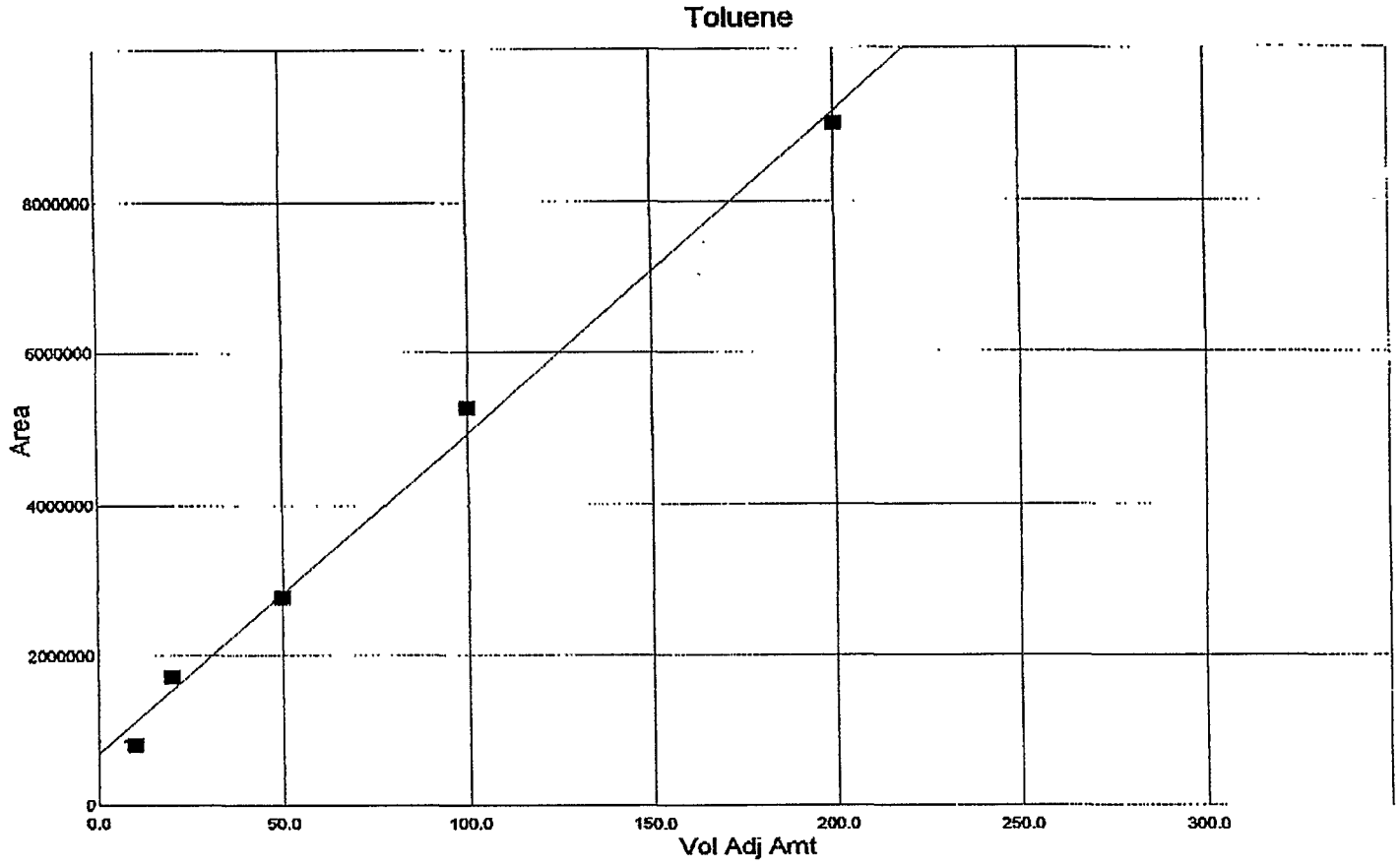


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	0.720889	9.279111	1287.17	1118138.000	1538892.090	-420754.090	-27.341
2	20.000000	23.946251	-3.946251	-16.480	2171274.000	1992334.318	178939.682	8.981
3	50.000000	49.328139	0.671861	1.362	3322196.000	3352661.005	-30465.005	-0.909
4	100.000000	111.534851	-11.534851	-10.342	6142911.000	5619872.149	523038.851	9.307
5	200.000000	194.469870	5.530130	2.844	9903535.000	10154294.438	-250759.438	-2.469

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Toluene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.993963
Calibration Curve = (709550.966833) + (42380.803068)X

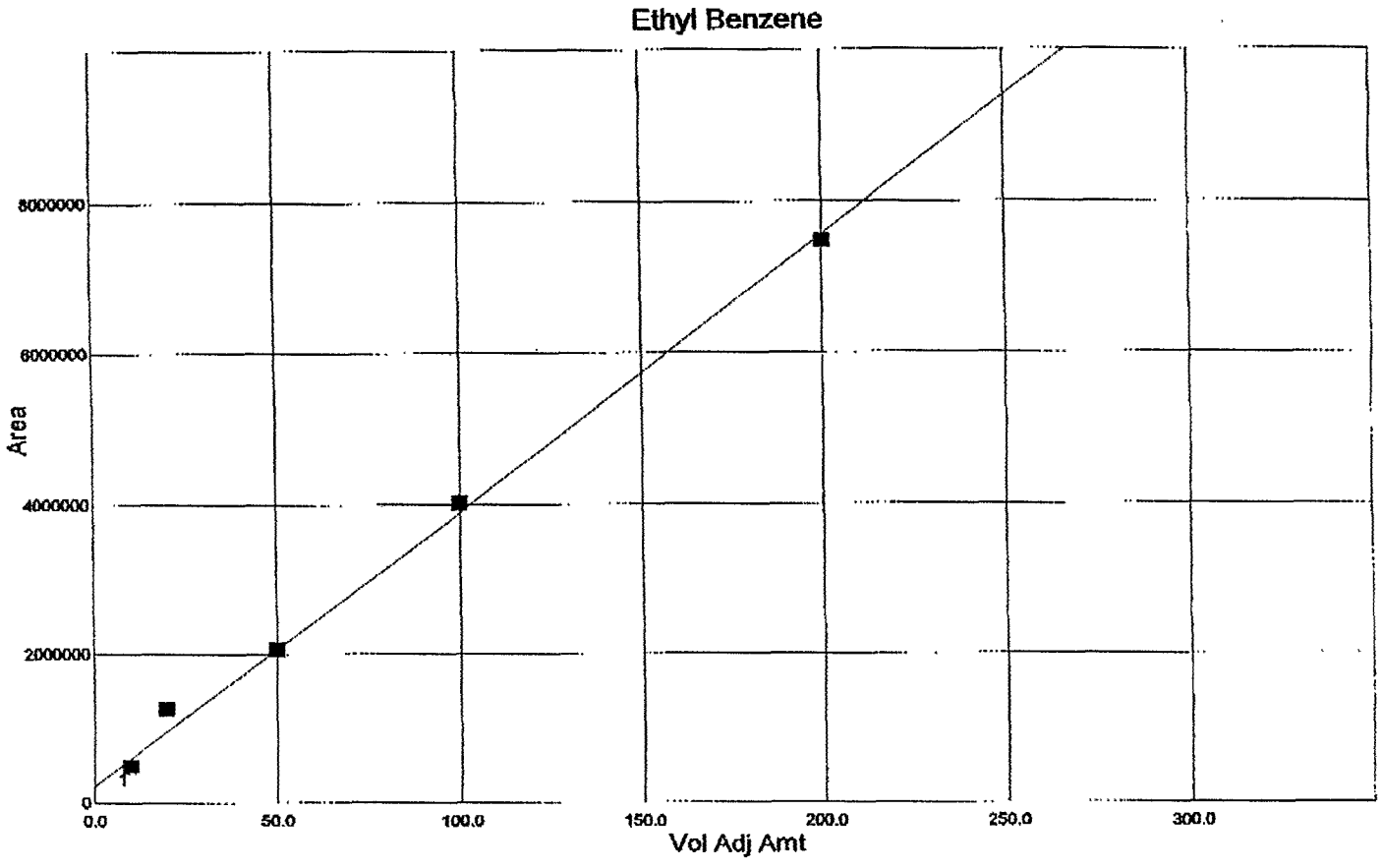


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	2.801245	7.198755	256.984	828270.000	1133358.998	-305088.998	-26.919
2	20.000000	24.216460	-4.216460	-17.412	1735864.000	1557167.028	178696.972	11.476
3	50.000000	48.816914	1.183086	2.424	2778451.000	2828591.120	-50140.120	-1.773
4	100.000000	107.862634	-7.862634	-7.289	5280856.000	4947631.274	333224.726	6.735
5	200.000000	196.302746	3.697254	1.883	9029019.000	9185711.580	-156692.580	-1.706

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor - 1.0 (No Weighting) r^2 - 0.995283
Calibration Curve - (235412.184332) + (36632.926037)X

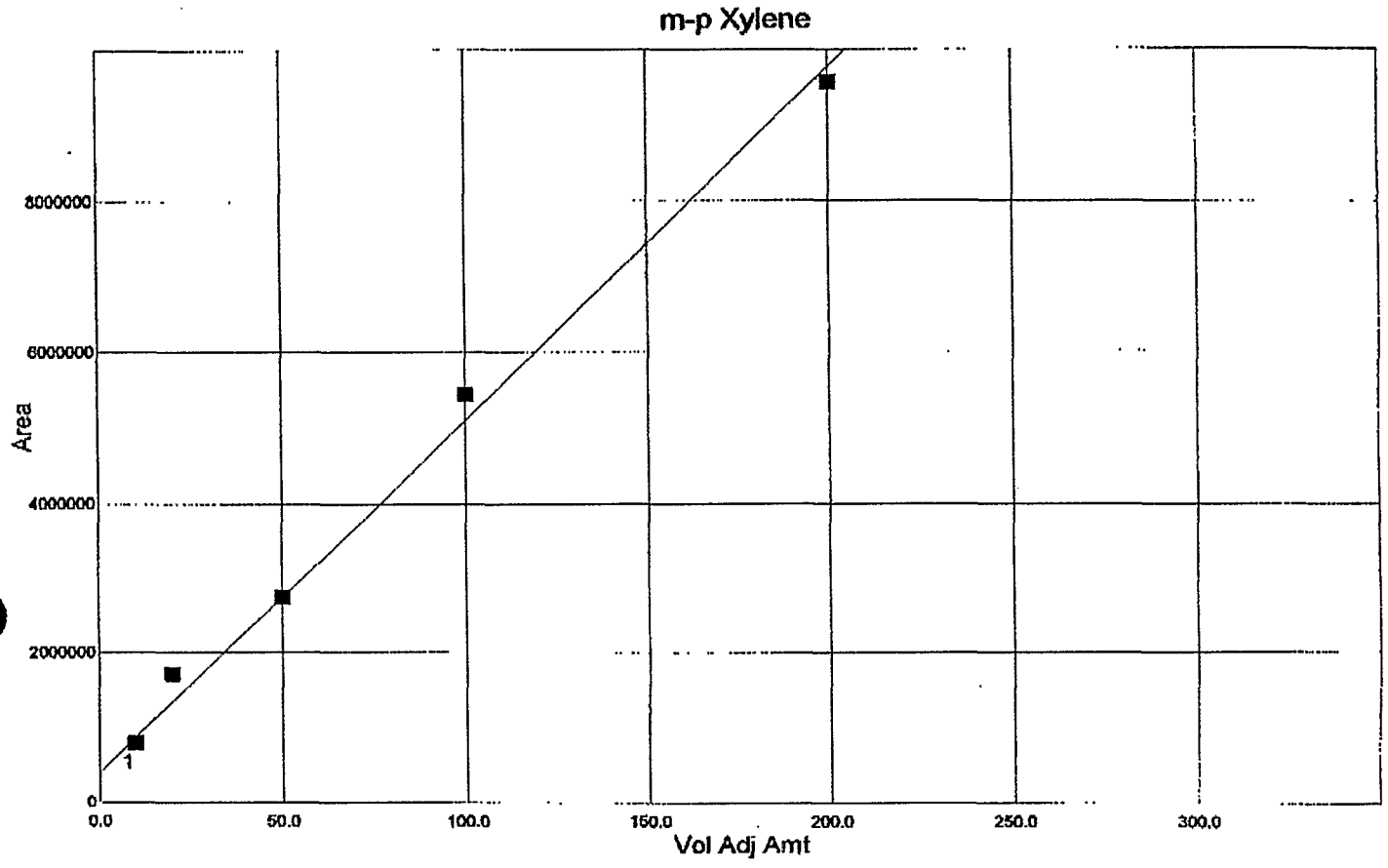


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	7.230376	2.769624	38.305	500282.000	601741.445	-101459.445	-16.861
2	20.000000	28.268963	-8.268963	-29.251	1270987.000	968070.705	302916.295	31.297
3	50.000000	49.690183	0.309817	0.623	2055709.000	2067058.486	-11349.486	-0.549
4	100.000000	103.695370	-3.695370	-3.564	4034077.000	3898704.788	135372.212	3.472
5	200.000000	197.541354	2.458646	1.245	7471930.000	7561997.392	-90067.392	-1.191

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.992714
Calibration Curve = (414126.528802) + (46791.983756)X

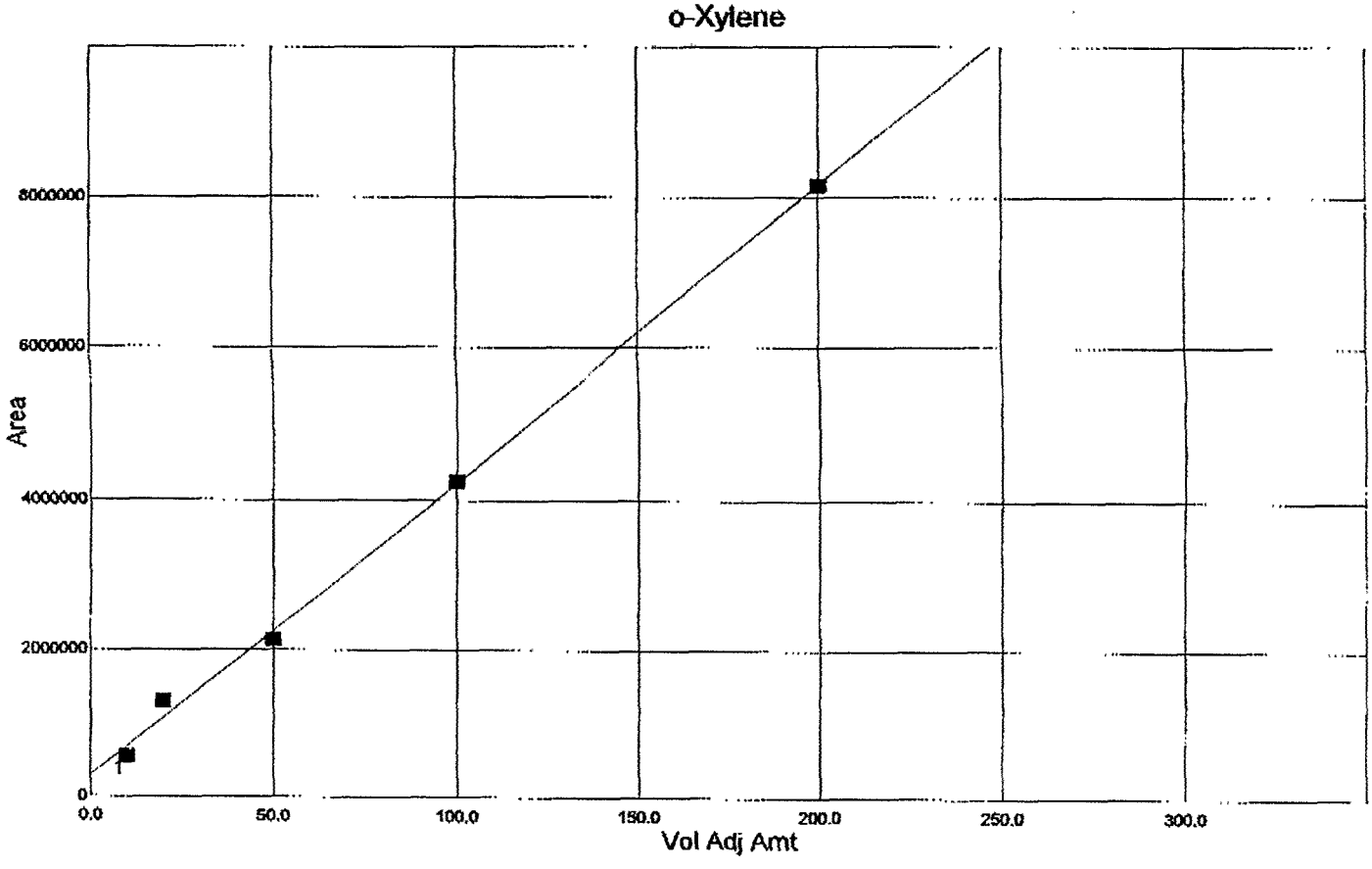


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	8.120824	1.879176	23.140	794116.000	882046.366	-87930.366	-9.969
2	20.000000	27.872327	-7.872327	-28.244	1718328.000	1349966.204	368361.796	27.287
3	50.000000	49.996074	0.003926	0.008	2753542.000	2753725.717	-183.717	-0.007
4	100.000000	107.106882	-7.106882	-6.635	5425870.000	5093324.904	332545.096	6.529
5	200.000000	195.754267	4.245733	2.169	9573857.000	9772523.280	-198666.280	-2.033

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "o-Xylene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.997713
Calibration Curve = (297775.484245) + (39294.275207)X

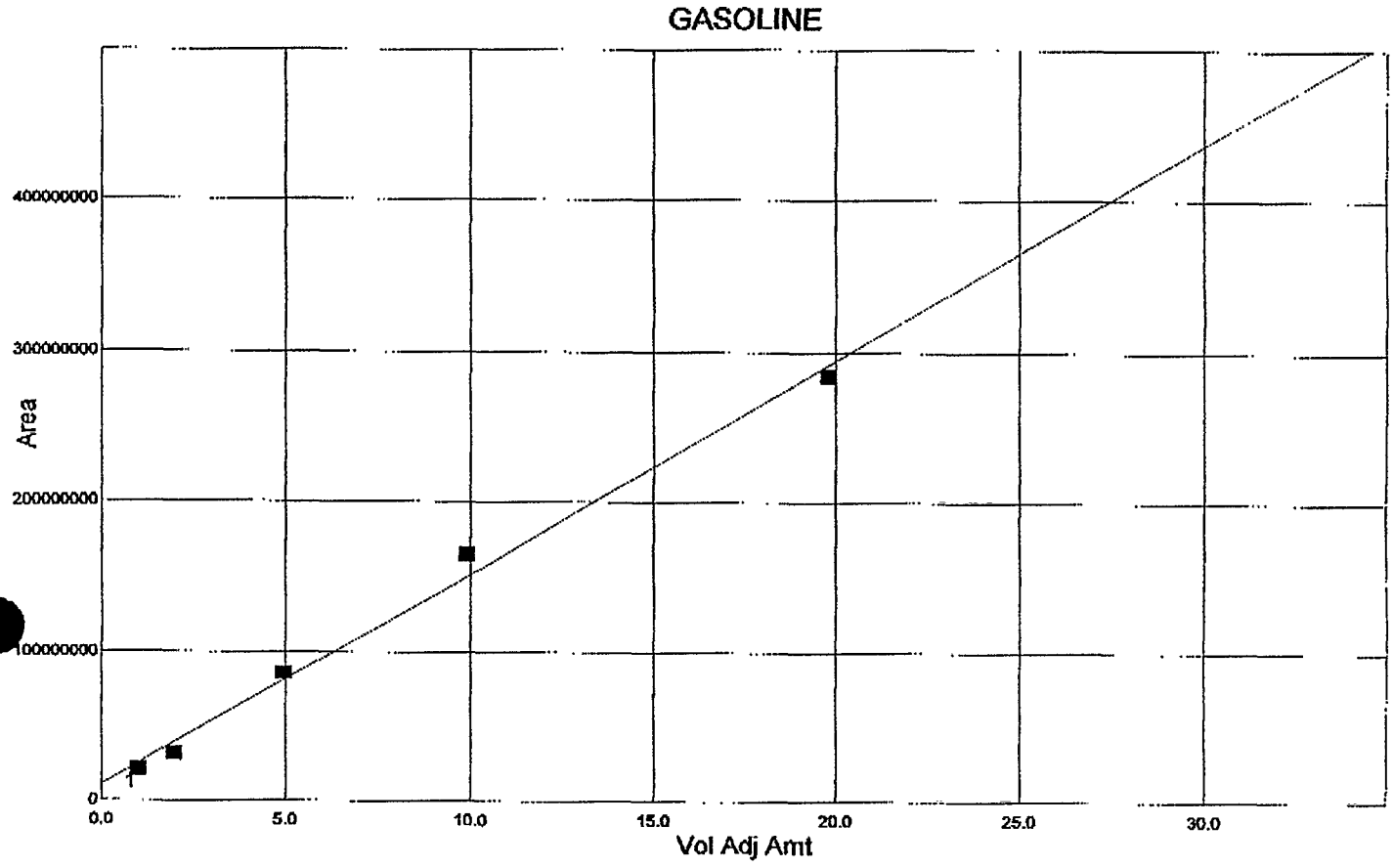


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	6.463296	3.536704	54.720	551746.000	690718.236	-138972.236	-20.120
2	20.000000	25.726840	-5.726840	-22.260	1308693.000	1083660.988	225032.012	20.766
3	50.000000	46.984287	3.015713	6.419	2143989.000	2262489.245	-118500.245	-5.238
4	100.000000	100.934996	-0.934996	-0.926	4263943.000	4227203.005	36739.995	0.869
5	200.000000	199.890581	0.109419	0.055	8152331.000	8156630.526	-4299.526	-0.053

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "GASOLINE"
Date: 3/15/98 Time: 11:47 AM

rve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.992342
Calibration Curve = (11112913.505804) + (14166125.663769)X



Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	0.695700	0.294300	42.303	20968289.000	25137377.913	-4169088.913	-16.585
2	1.980000	1.438829	0.541171	37.612	31495545.000	39161842.320	-7666297.320	-19.576
3	4.950000	5.288756	-0.338756	-6.405	86034100.000	81235235.541	4798864.459	5.907
4	9.900000	10.925143	-1.025143	-9.383	165879865.000	151357557.577	14522307.423	9.595
5	19.800000	19.271571	0.528429	2.742	284116416.000	291602201.648	-7485785.648	-2.567

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 01/29/98 To 01/29/98

Date(s) received: 01/29/98 To 01/29/98

Date(s) reported: 01/30/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: A-2871

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		DATE EXTRACTED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		LAB SAMPLE I.D.	MB	A2871-1	A2871-2	A2871-3	A2871-4
		CLIENT SAMPLE I.D.	--	B8-6.5	B8-10.5	B8-15.5	B8-21.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	0.009
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	0.004
Total Xylenes	0.003	0.002	ND	ND	ND	ND	0.019
Gasoline	0.050	0.50	ND	ND	ND	ND	0.7
MTBE	0.001	0.005	ND	0.007	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	96	92	112	98	113
Trifluorotoluene (TFT)	100 ng	65-125	95	85	103	116	--

(RWQCB LabForm10A;Ver12/94)

Project No: A-2871

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		DATE EXTRACTED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		LAB SAMPLE I.D.	A2871-5	A2871-6	A2871-7	7A2871-8	A2871-9
		CLIENT SAMPLE I.D.	B8-26.0	B8-30.5	B8-36.0	B8-40.5	B8-44.75
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
ylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	94	67	102	102	88
Trifluorotoluene (TFT)	100 ng	65-125	94	71	114	116	88

(RWQCB LabForm10A;Ver12/94)

Project No: A-2871

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		DATE EXTRACTED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		LAB SAMPLE I.D.	A2871-10	A2871-11	A2871-12	7A2871-13	A2871-14
		CLIENT SAMPLE I.D.	B8-50.5	B8-55.4	B8-60.0	B8-65.0	B8-70.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	102	100	102	84	97
Trifluorotoluene (TFT)	100 ng	65-125	118	118	119	88	104

(RWQCB LabForm10A;Ver12/94)

Project No: A-2871

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		DATE EXTRACTED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		LAB SAMPLE I.D.	A2871-15	A2871-16	A2871-17	7A2871-18	A2871-19
		CLIENT SAMPLE I.D.	B8-75.0	B8-80.0	B8-85.0	B8-90.0	B8-95.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
hylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	94	92	93	94	100
Trifluorotoluene (TFT)	100 ng	65-125	106	102	101	95	116

(RWQCB LabForm10A;Ver12/94)

Project No: A-2871

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		DATE EXTRACTED	1-29-98	1-29-98	1-29-98	1-29-98	1-29-98
		LAB SAMPLE I.D.	A2871-20	A2871-21	A2871-22	7A2871-23	MB
		CLIENT SAMPLE I.D.	B8-100.0	B8-104.75	B8-110.0	B8-114.75	--
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	116	102	111	77	122
Trifluorotoluene (TFT)	100 ng	65-125	101	115	101	88	100

(RWQCB LabForm10A;Ver12/94)

Project No: A-2871

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:09/28/97	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT #LA59451)	LOT NUMBER: 092897-7
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	4.11	100 ng	2936530	28490	+3.1	+/-20%
Toluene	PID	6.76	100 ng	3132539	30720	+2.0	+/-20%
Ethylbenzene	PID	9.48	100 ng	2067238	24965	-17.2	+/-20%
Total Xylenes	PID	9.72/10.41	175 ng	4914812/2041152	29222/25381	-6.2	+/-20%
Gasoline	PID	NA	9.90 ng	94029478	10422100	-8.1	+/-20%
MTBE	PID	1.38	100 ng	674623	5614	+20.0	+/-20%

Project No: A-2871

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:01-30-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #:092897-7	
LAB SAMPLE I.D.:B8-114.75(GC1);B8-36.0(GC2)	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC (ng)	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	325	329	101	325	326	100	0.9	65-125	20%
o-Xylene (GC1)	ND	210	209	100	210	213	101	1.9	65-125	20%
Toluene (GC2)	ND	200	203	102	200	203	102	0.0	65-125	20%
o-Xylene(GC2)	ND	170	172	101	170	173	102	0.6	65-125	20%
Gasoline (GC1)	ND	9.90	10.18	103	9.90	10.33	104	1.5	65-125	20%
Gasoline (GC2)	ND	9.90	9.98	101	9.90	10.47	106	4.8	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

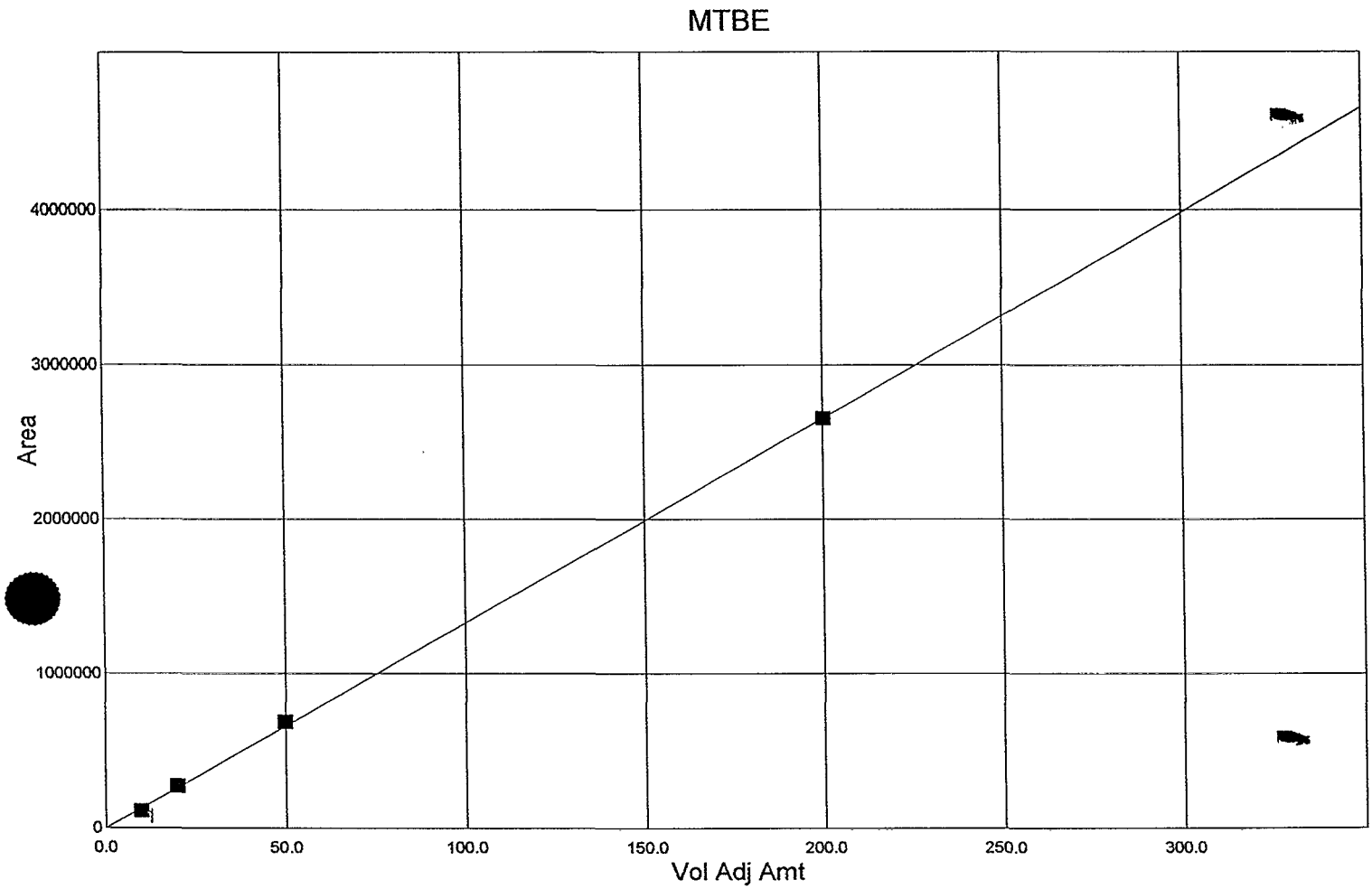
DATE PERFORMED:01/29/98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.: LCS 8020+MTBE
LOT NUMBER: 013098-1	
DATE OF SOURCE: 01/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	116.6	117	80-120
Toluene	100 ng	127.9	128	80-120
Ethylbenzene	100 ng	89.4	89	80-120
m,p-Xylene	200 ng	98.5	98	80-120
o-Xylene	100 ng	85.8	86	80-120
(GC2)	--	--	--	--
Benzene	100 ng	105.2	105	80-120
Toluene	100 ng	123.2	123	80-120
Ethylbenzene	100 ng	108.3	108	80-120
m,p-Xylene	100 ng	121.8	122	80-120
o-Xylene	100 ng	117.0	117	80-120
Gasoline (GC1)	9.90 ng	9.02	91	80-120
Gasoline (GC2)	9.90 ng	10.18	103	80-120
MTBE (GC1)	100 ng	120.17	120	80-120
MTBE (GC2)	100 ng	99.70	100	80-120

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "MTBE"
Date: 1/29/98 Time: 12:43 PM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999780
Calibration Curve = (5476.048316) + (13260.052709)X

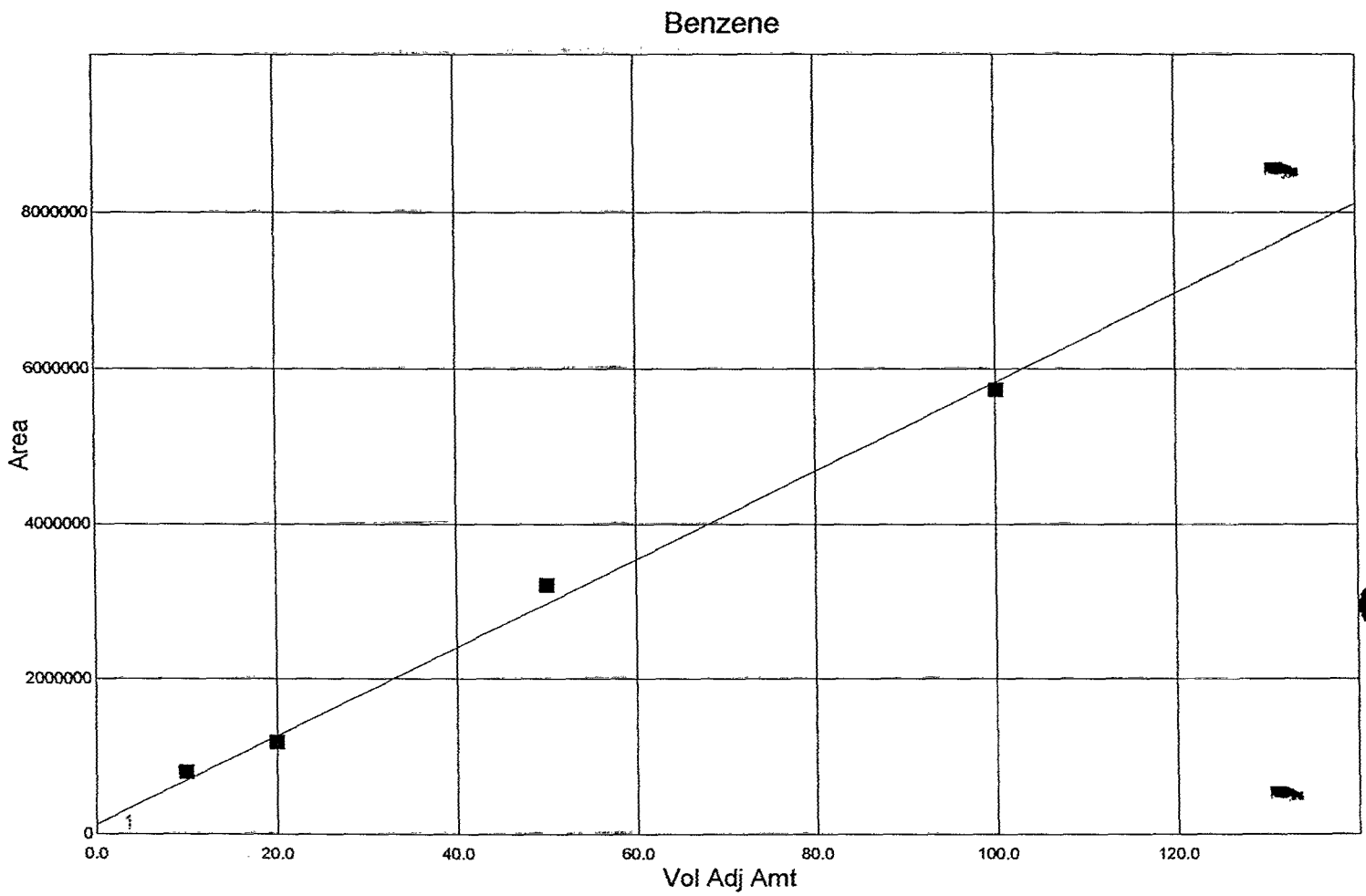


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	8.495136	1.504864	17.714	118122.000	138076.575	-19954.575	-14.452
2	20.000000	20.588602	-0.588602	-2.859	278482.000	270677.102	7804.898	2.883
3	50.000000	51.750469	-1.750469	-3.383	691690.000	668478.684	23211.316	3.472
5	200.000000	199.578766	0.421234	0.211	2651901.000	2657486.590	-5585.590	-0.210

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "Benzene"
Date: 1/29/98 Time: 12:45 PM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.995256
Calibration Curve = (134543.049080) + (56953.620859)X

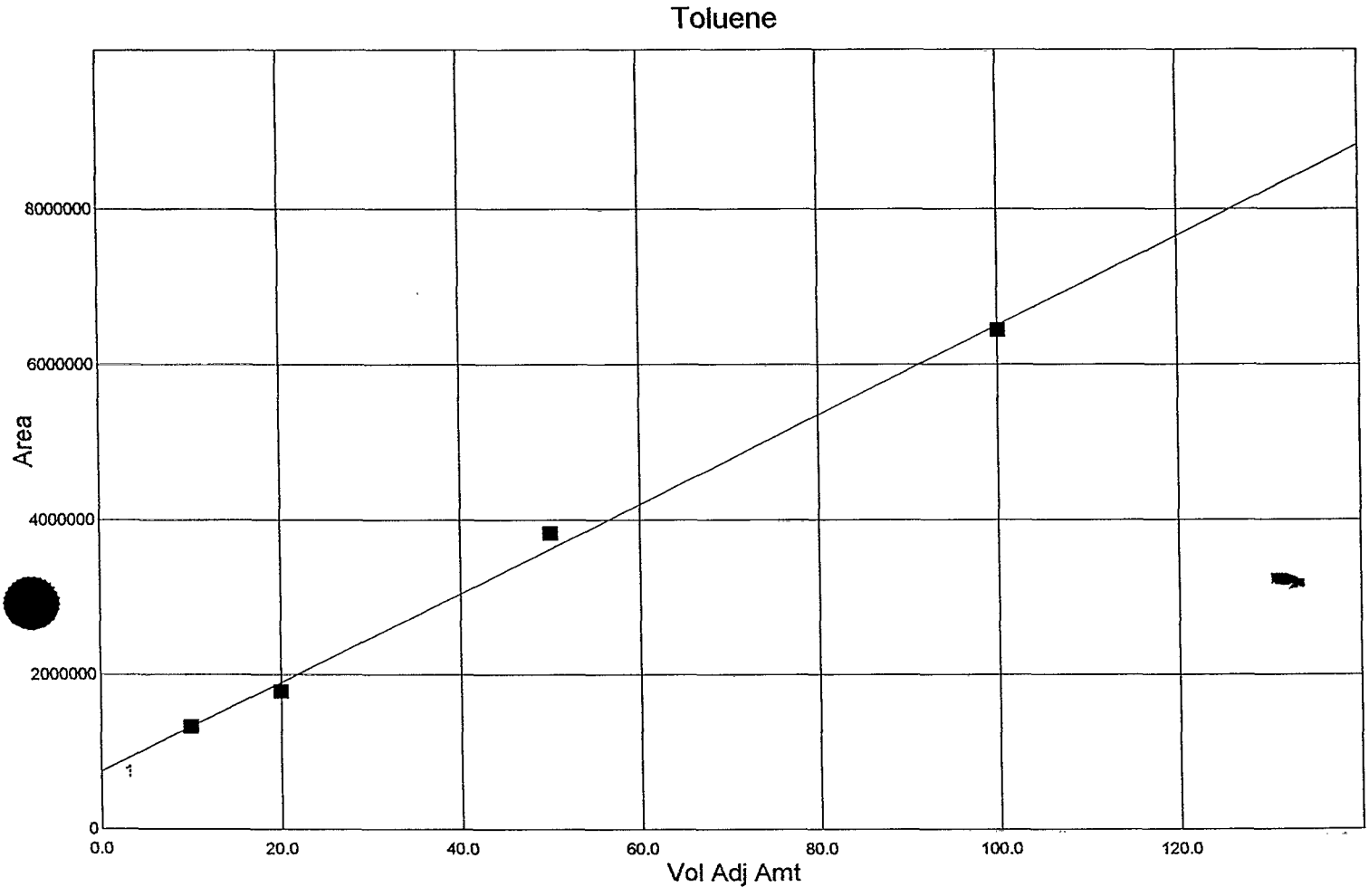


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	11.769242	-1.769242	-15.033	804844.000	704079.258	100764.742	14.312
2	20.000000	18.434578	1.565422	8.492	1184459.000	1273615.466	-89156.466	-7.000
3	50.000000	54.044693	-4.044693	-7.484	3212584.000	2982224.092	230359.908	7.724
4	100.000000	98.113814	1.886186	1.922	5722480.000	5829905.135	-107425.135	-1.843

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "Toluene"
Date: 1/29/98 Time: 12:44 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.996421
Calibration Curve = (750593.551020) + (57549.137755)X

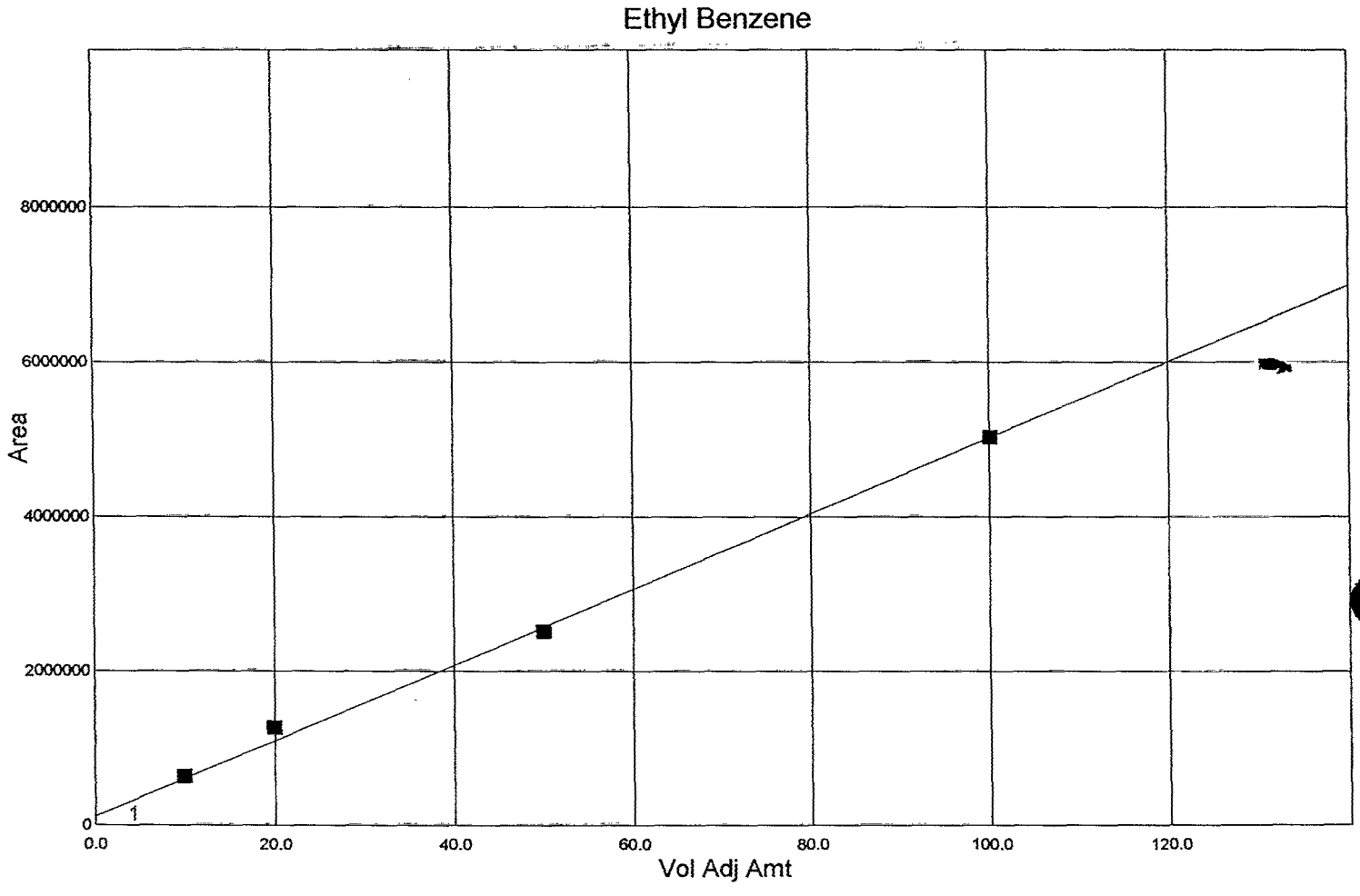


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.921008	0.078992	0.796	1321539.000	1326084.929	-4545.929	-0.343
2	20.000000	17.949677	2.050323	11.423	1783582.000	1901576.306	-117994.306	-6.205
3	50.000000	53.422702	-3.422702	-6.407	3825024.000	3628050.439	196973.561	5.429
4	100.000000	98.706613	1.293387	1.310	6431074.000	6505507.327	-74433.327	-1.144

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 1/29/98 Time: 12:44 PM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.997039
Calibration Curve = (123449.012270) + (49023.605215)X

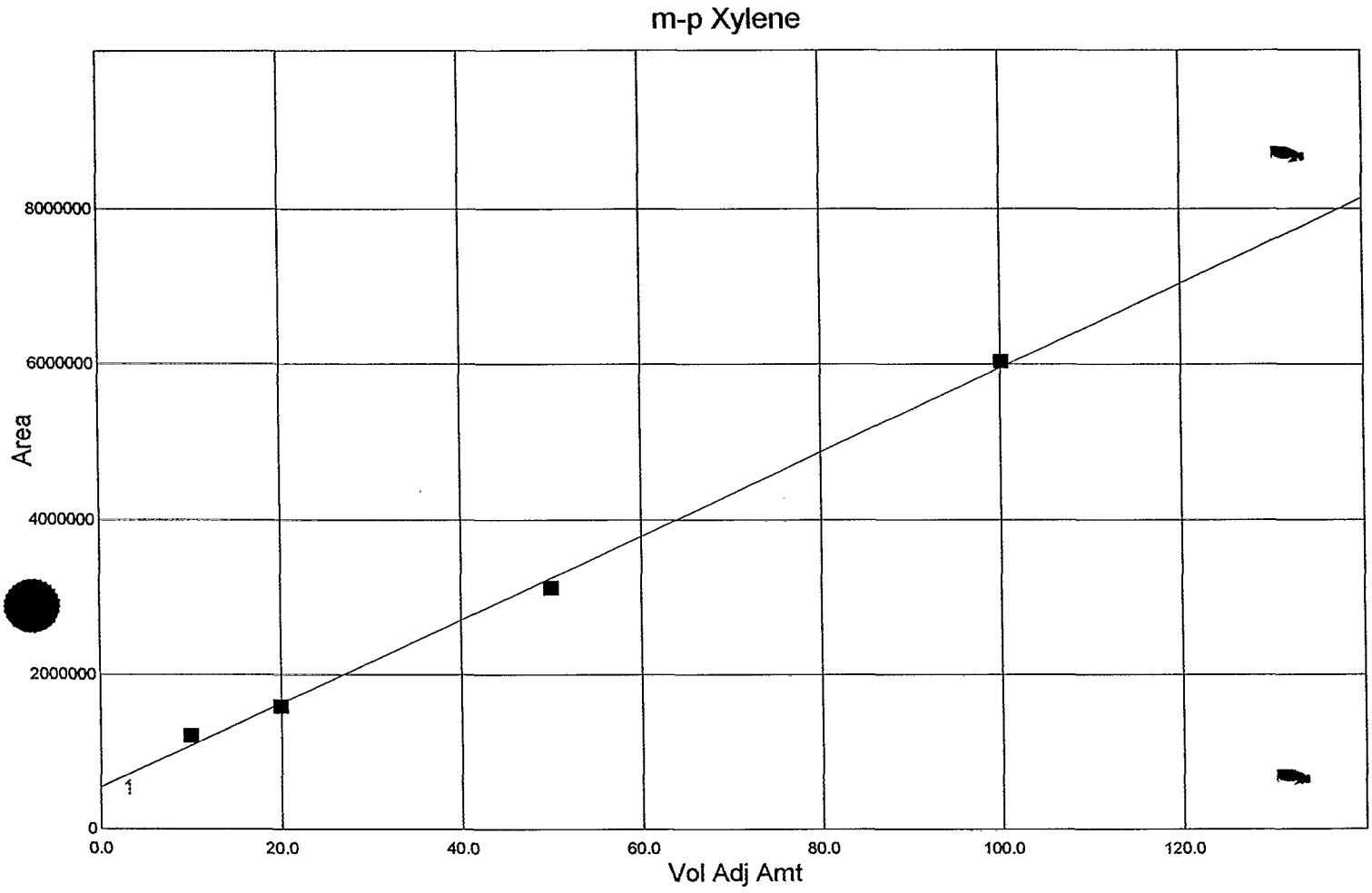


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.526276	-0.526276	-5.000	639485.000	613685.064	25799.936	4.204
2	20.000000	23.340654	-3.340654	-14.313	1267692.000	1103921.117	163770.883	14.835
3	50.000000	48.743967	1.256033	2.577	2513054.000	2574629.273	-61575.273	-2.392
4	100.000000	99.907258	0.092742	0.093	5021263.000	5025809.534	-4546.534	-0.090

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 1/29/98 Time: 12:44 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.997343
Calibration Curve = (552212.183673) + (54091.445918)X

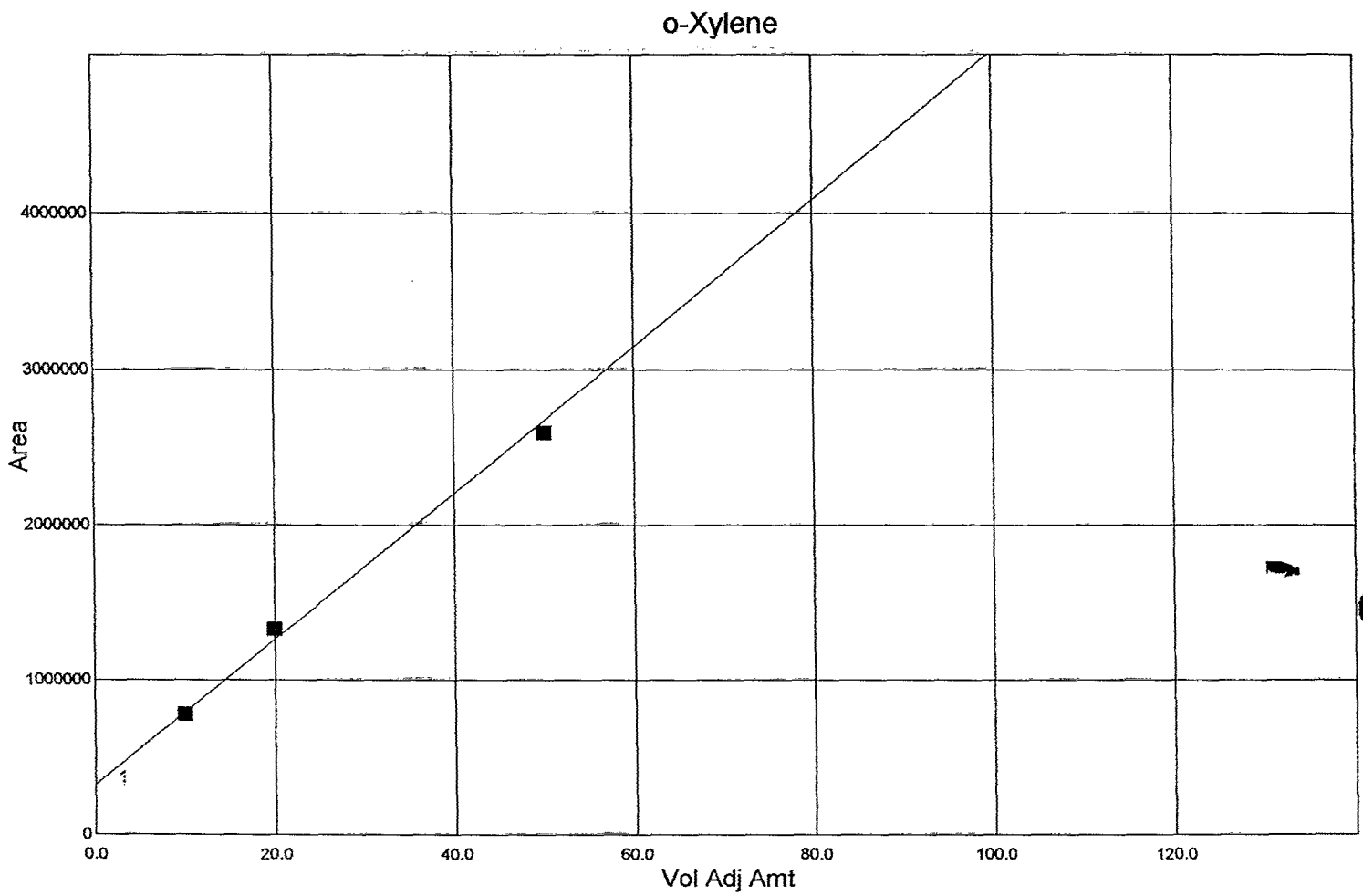


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	12.178003	-2.178003	-17.885	1210938.000	1093126.643	117811.357	10.777
2	20.000000	19.087137	0.912863	4.783	1584663.000	1634041.102	-49378.102	-3.022
3	50.000000	47.540175	2.459825	5.174	3123729.000	3256784.480	-133055.480	-4.085
4	100.000000	101.194685	-1.194685	-1.181	6025979.000	5961356.776	64622.224	1.084

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "o-Xylene"
Date: 1/29/98 Time: 12:44 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998900
Calibration Curve = (324351.071429) + (47002.392857)X

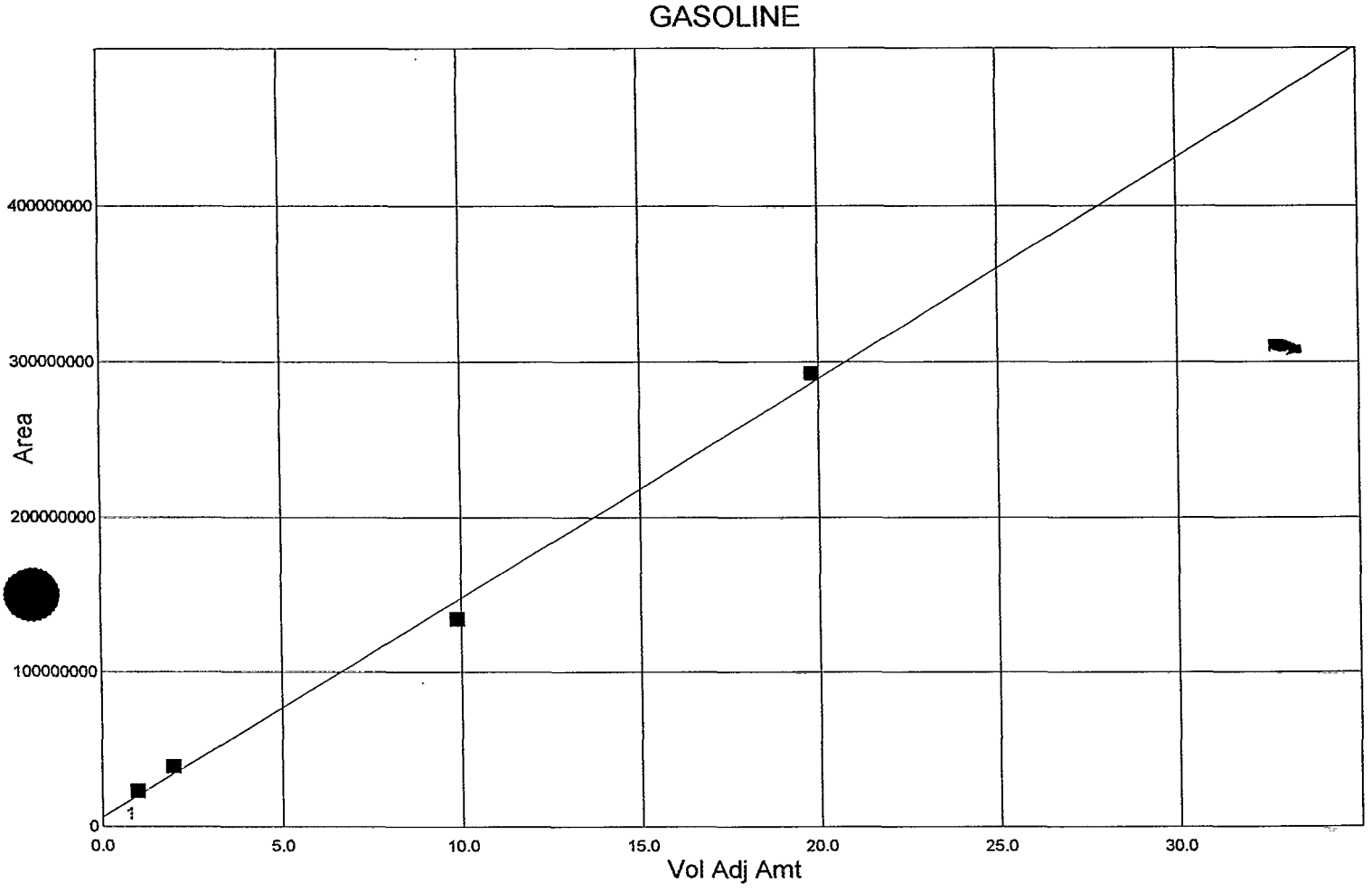


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.665996	0.334004	3.455	778676.000	794375.000	-15699.000	-1.976
2	20.000000	21.435205	-1.435205	-6.696	1331857.000	1264398.929	67458.071	5.335
3	50.000000	48.304880	1.695120	3.509	2594796.000	2674470.714	-79674.714	-2.979
4	100.000000	100.593920	-0.593920	-0.590	5052506.000	5024590.357	27915.643	0.556

Fit Analysis Output For Method File: "C:\TC4\GC2B\GC2B.MTH"
Component Name: "GASOLINE"
Date: 1/29/98 Time: 12:48 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.995350
Calibration Curve = (6818405.118153) + (14127131.635365)X

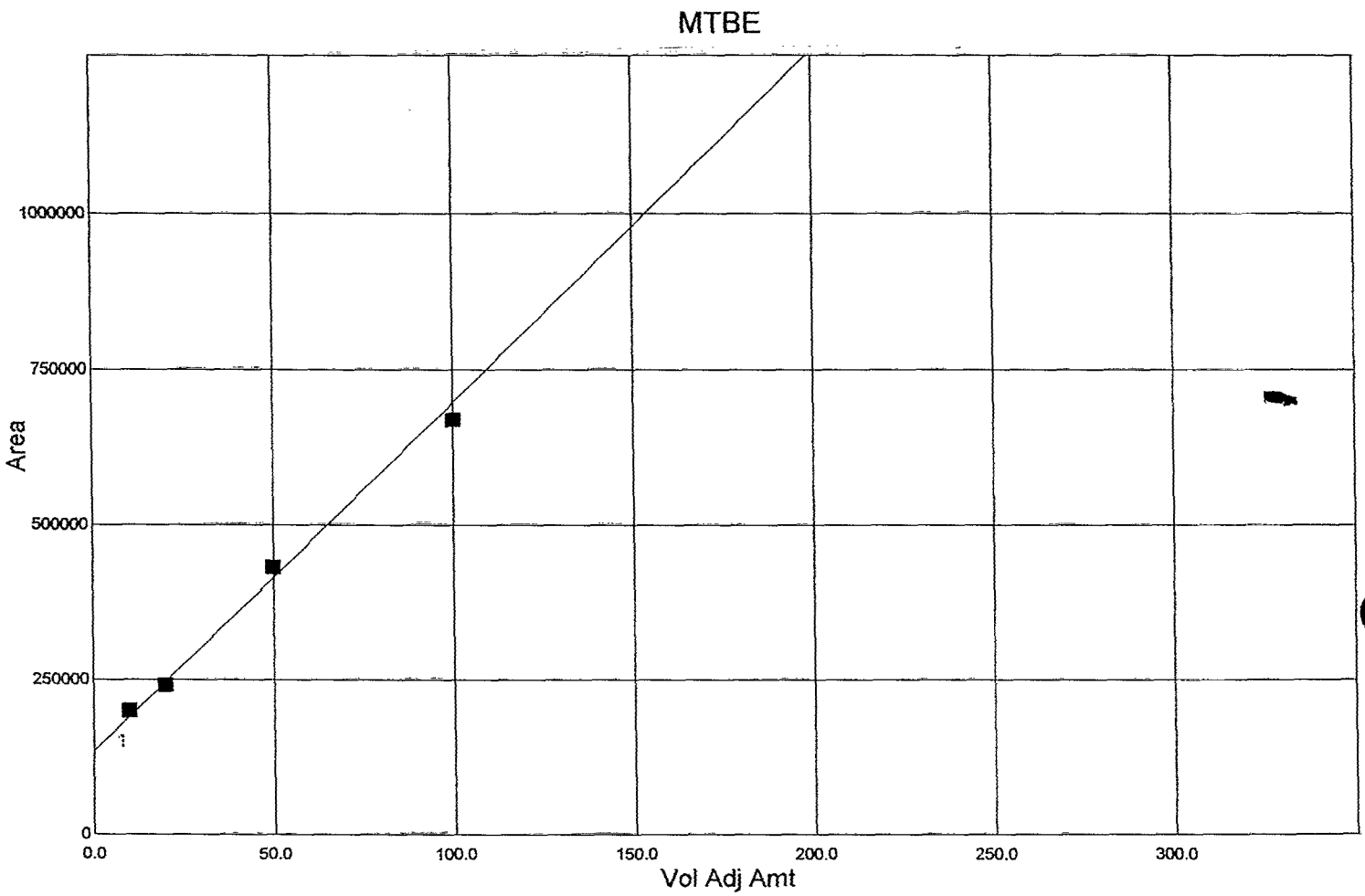


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	1.172489	-0.182489	-15.564	23382316.000	20804265.437	2578050.563	12.392
2	1.980000	2.278333	-0.298333	-13.094	39004722.000	34790125.756	4214596.244	12.114
4	9.900000	9.016270	0.883730	9.802	134192439.000	146677008.308	-12484569.308	-8.512
5	19.800000	20.202907	-0.402907	-1.994	292227534.000	286535611.498	5691922.502	1.986

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "MTBE"
Date: 1/29/98 Time: 12:46 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998366
Calibration Curve = (135670.344942) + (5614.398093)X

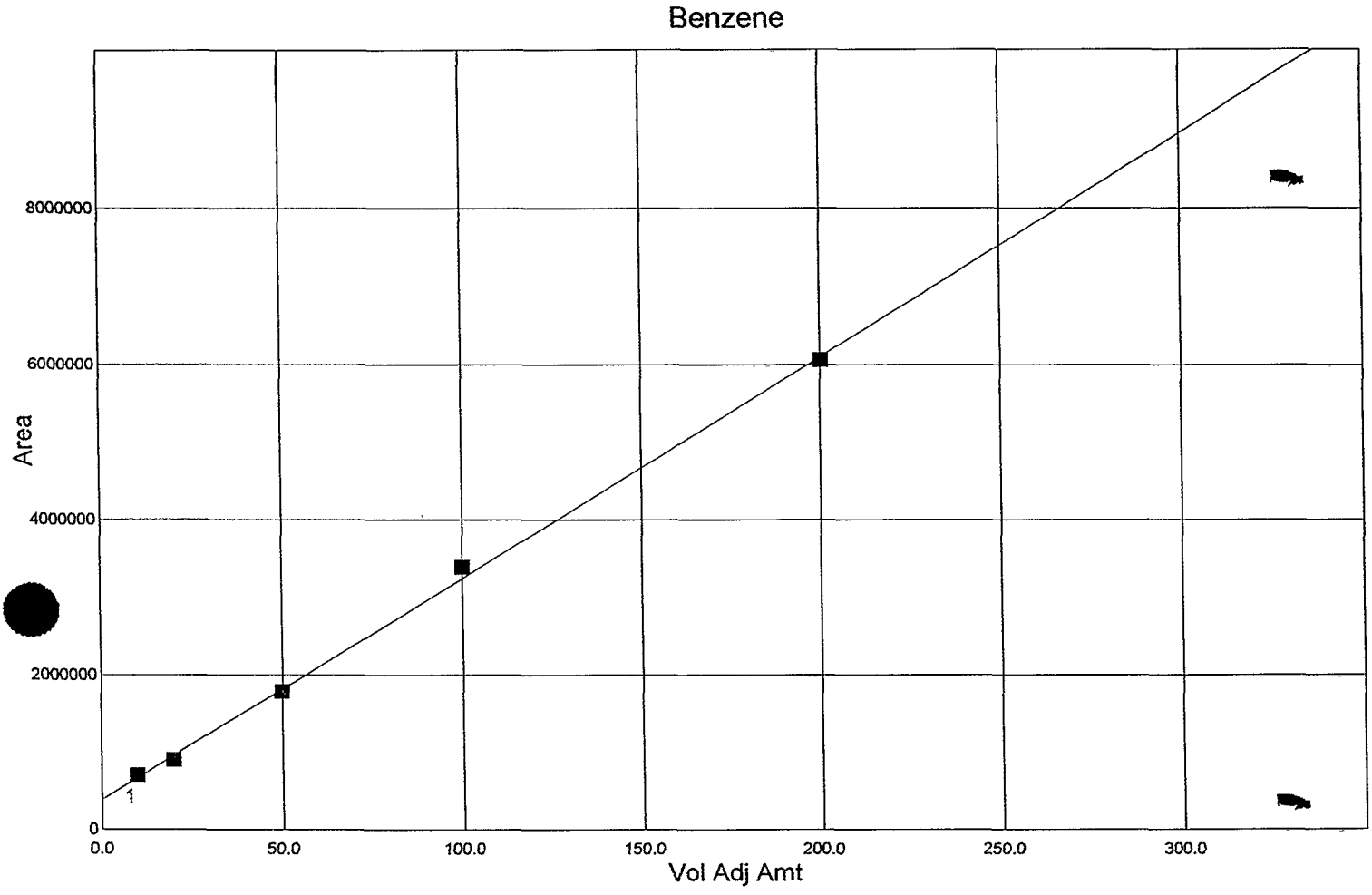


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	11.442661	-1.442661	-12.608	199914.000	191814.326	8099.674	4.223
2	20.000000	18.903479	1.096521	5.801	241802.000	247958.307	-6156.307	-2.[illegible]
3	50.000000	52.816464	-2.816464	-5.333	432203.000	416390.250	15812.750	3.798
4	100.000000	95.007986	4.992014	5.254	669083.000	697110.154	-28027.154	-4.020
5	200.000000	201.829410	-1.829410	-0.906	1268821.000	1258549.964	10271.036	0.816

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998634
Calibration Curve = (402259.966833) + (28490.053068)X

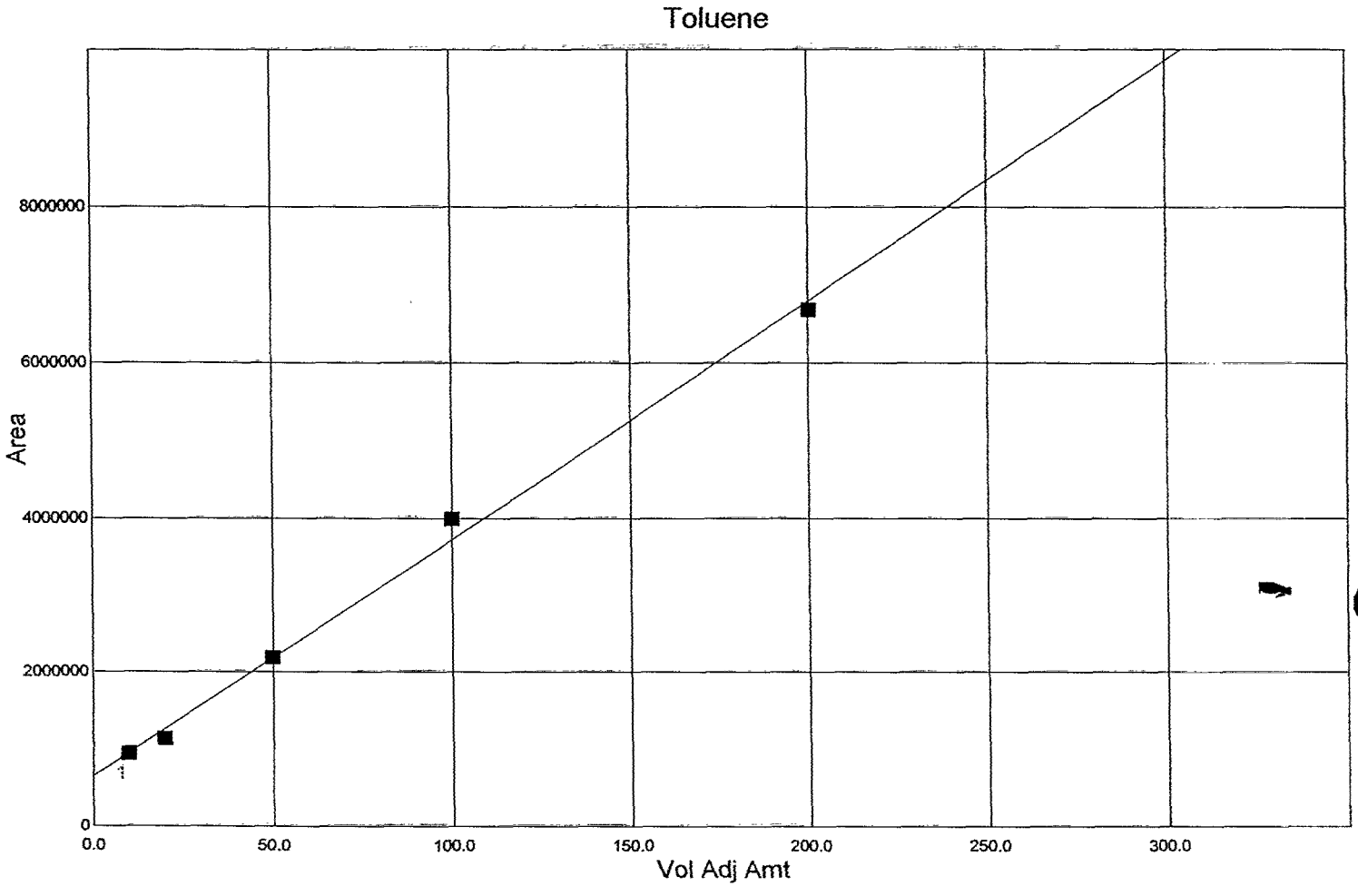


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.793909	-0.793909	-7.355	709779.000	687160.498	22618.502	3.292
2	20.000000	17.621695	2.378305	13.496	904303.000	972061.028	-67758.028	-6.971
3	50.000000	48.736485	1.263515	2.593	1790765.000	1826762.620	-35997.620	-1.971
4	100.000000	104.667795	-4.667795	-4.460	3384251.000	3251265.274	132985.726	4.090
5	200.000000	198.180116	1.819884	0.918	6048422.000	6100270.580	-51848.580	-0.850

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.995538
Calibration Curve = (655438.449420) + (30720.030929)X

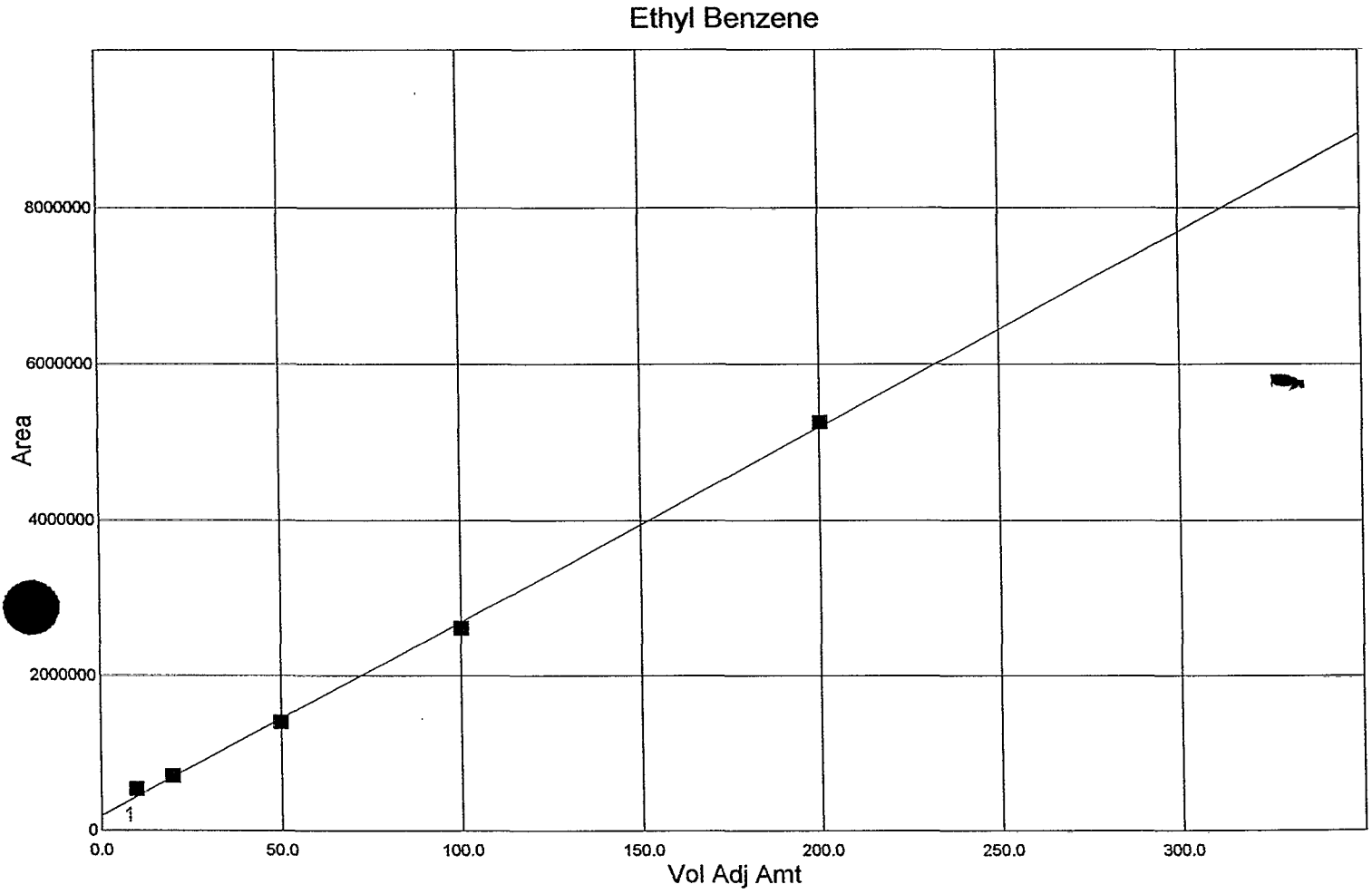


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.466643	0.533357	5.634	946254.000	962638.759	-16384.759	-1.702
2	20.000000	15.776337	4.223663	26.772	1140088.000	1269839.068	-129751.068	-10.218
3	50.000000	49.971517	0.028483	0.057	2190565.000	2191439.996	-874.996	-0.040
4	100.000000	108.658698	-8.658698	-7.969	3993437.000	3727441.542	265995.458	7.136
5	200.000000	196.126806	3.873194	1.975	6680460.000	6799444.635	-118984.635	-1.750

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998618
Calibration Curve = (207055.325041) + (24965.129934)X

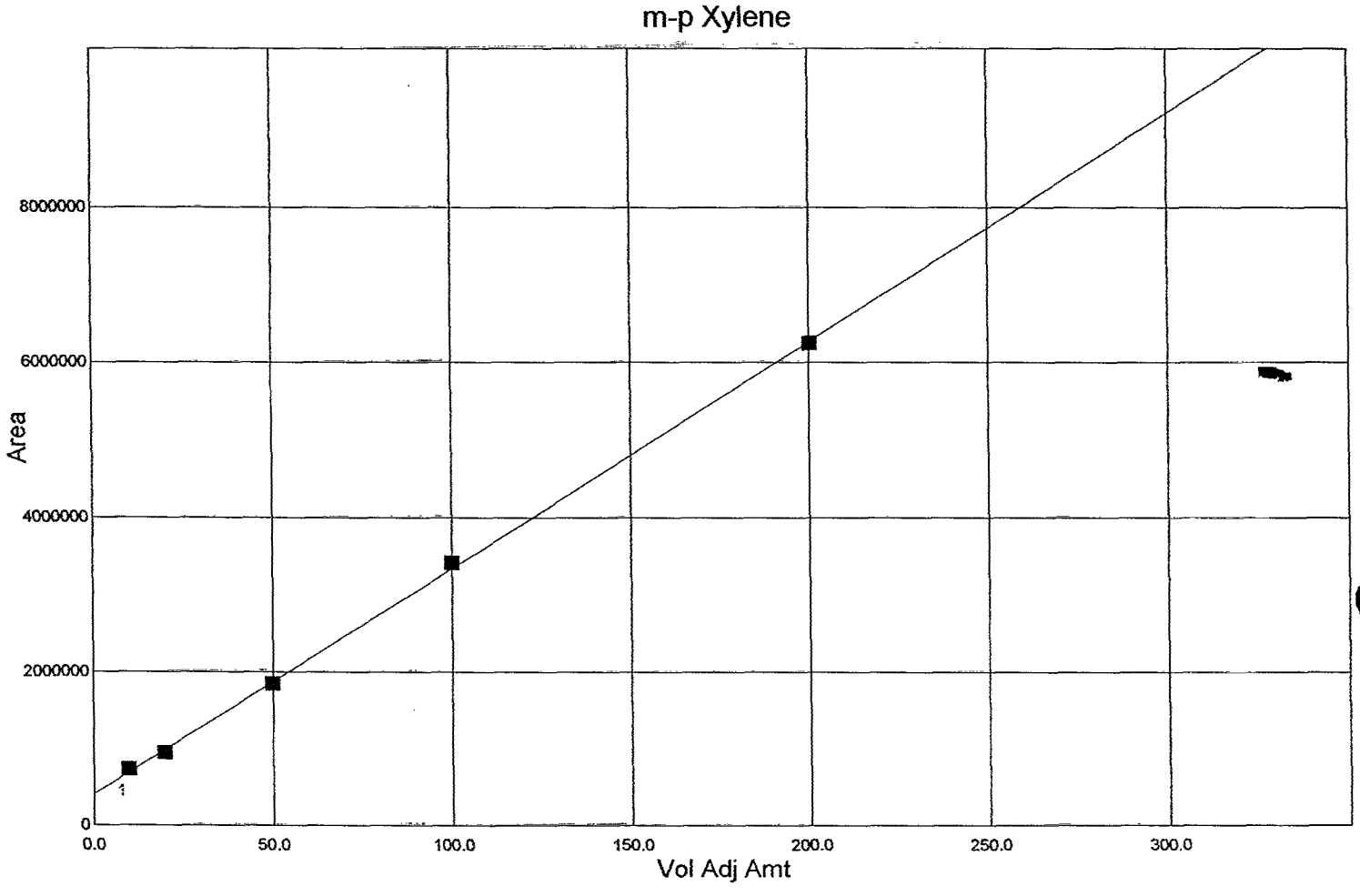


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	13.493888	-3.493888	-25.892	543932.000	456706.624	87225.376	19.[illegible]
2	20.000000	20.019991	-0.019991	-0.100	706857.000	706357.924	499.076	0.071
3	50.000000	47.886299	2.113701	4.414	1402543.000	1455311.822	-52768.822	-3.626
4	100.000000	96.496180	3.503820	3.631	2616095.000	2703568.318	-87473.318	-3.235
5	200.000000	202.103642	-2.103642	-1.041	5252599.000	5200081.312	52517.688	1.010

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999541
Calibration Curve = (422455.767828) + (29221.771476)X

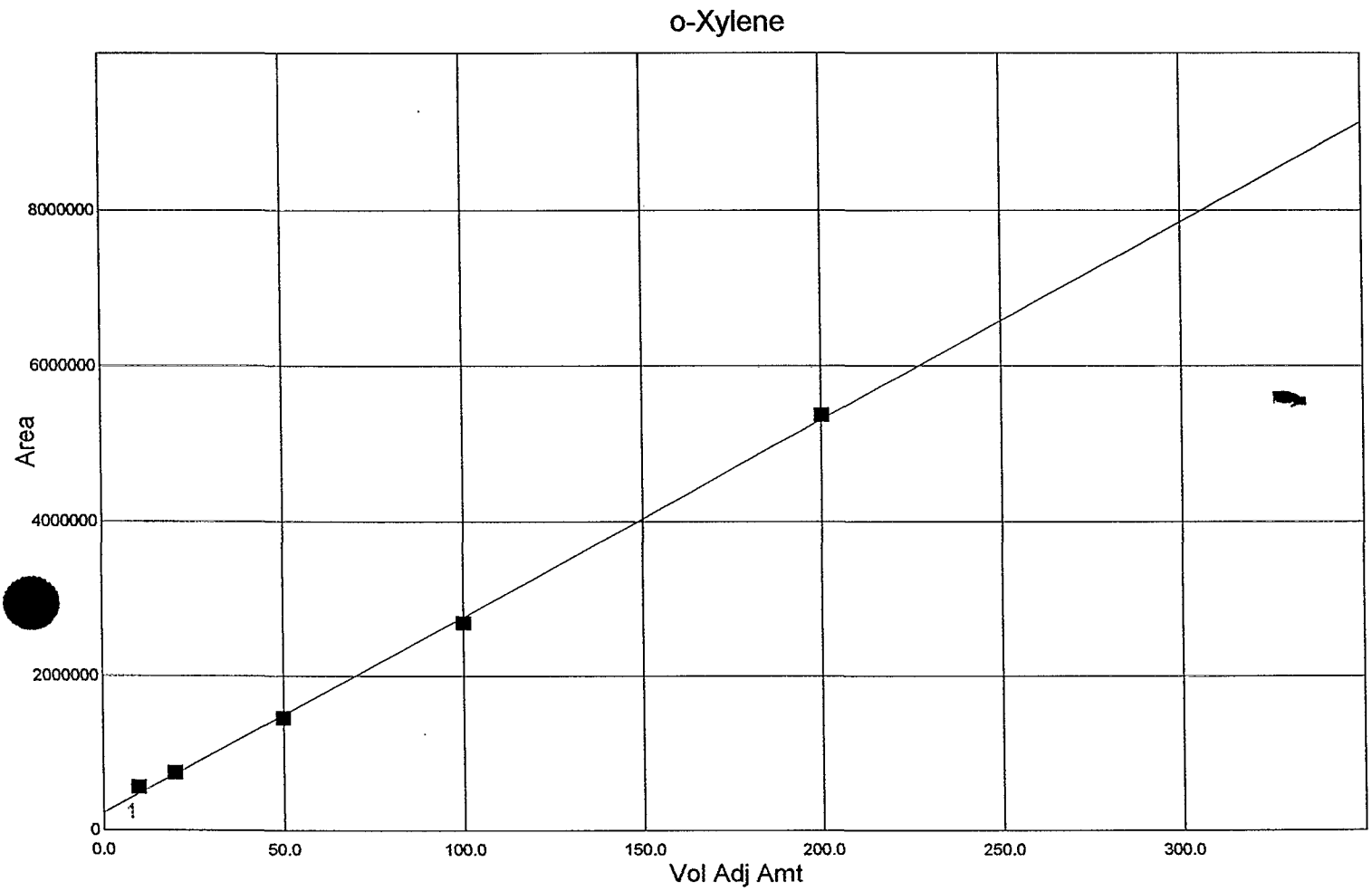


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.976550	-0.976550	-8.897	743210.000	714673.483	28536.517	3.[redacted]
2	20.000000	18.393759	1.606241	8.733	959954.000	1006891.197	-46937.197	-4.662
3	50.000000	49.069791	0.930209	1.896	1856362.000	1883544.342	-27182.342	-1.443
4	100.000000	102.431101	-2.431101	-2.373	3415674.000	3344632.915	71041.085	2.124
5	200.000000	199.128798	0.871202	0.438	6241352.000	6266810.063	-25458.063	-0.406

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998867
Calibration Curve = (237558.446103) + (25380.636235)X

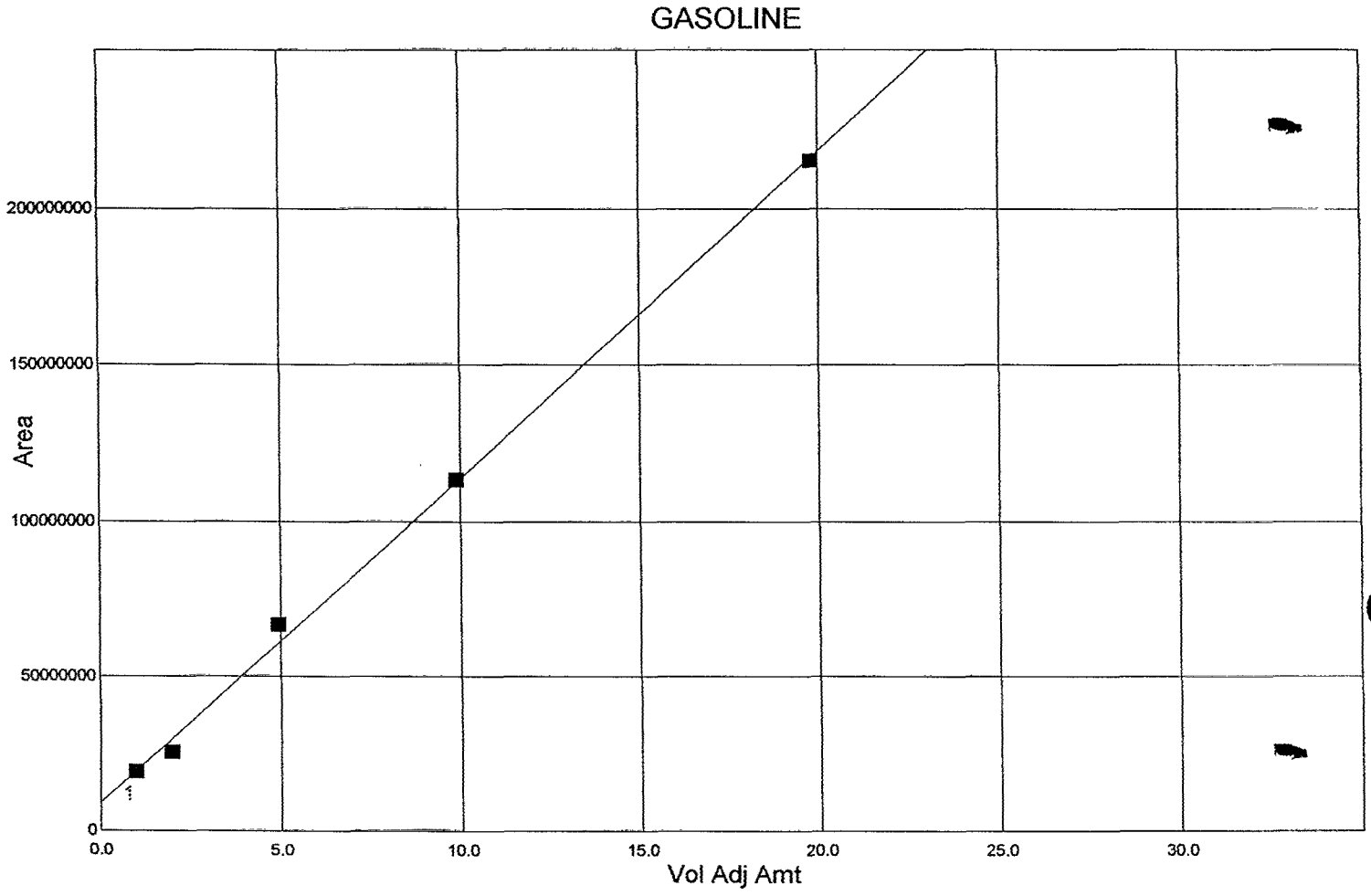


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	13.009704	-3.009704	-23.134	567753.000	491364.808	76388.192	15.546
2	20.000000	20.222959	-0.222959	-1.103	750830.000	745171.171	5658.829	0.[redacted]
3	50.000000	48.125805	1.874195	3.894	1459022.000	1506590.258	-47568.258	-3.157
4	100.000000	96.691530	3.308470	3.422	2691651.000	2775622.070	-83971.070	-3.025
5	200.000000	201.950003	-1.950003	-0.966	5363178.000	5313685.693	49492.307	0.931

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 1/29/98 Time: 12:47 PM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.997886
Calibration Curve = (9489239.723051) + (10442110.031492)X

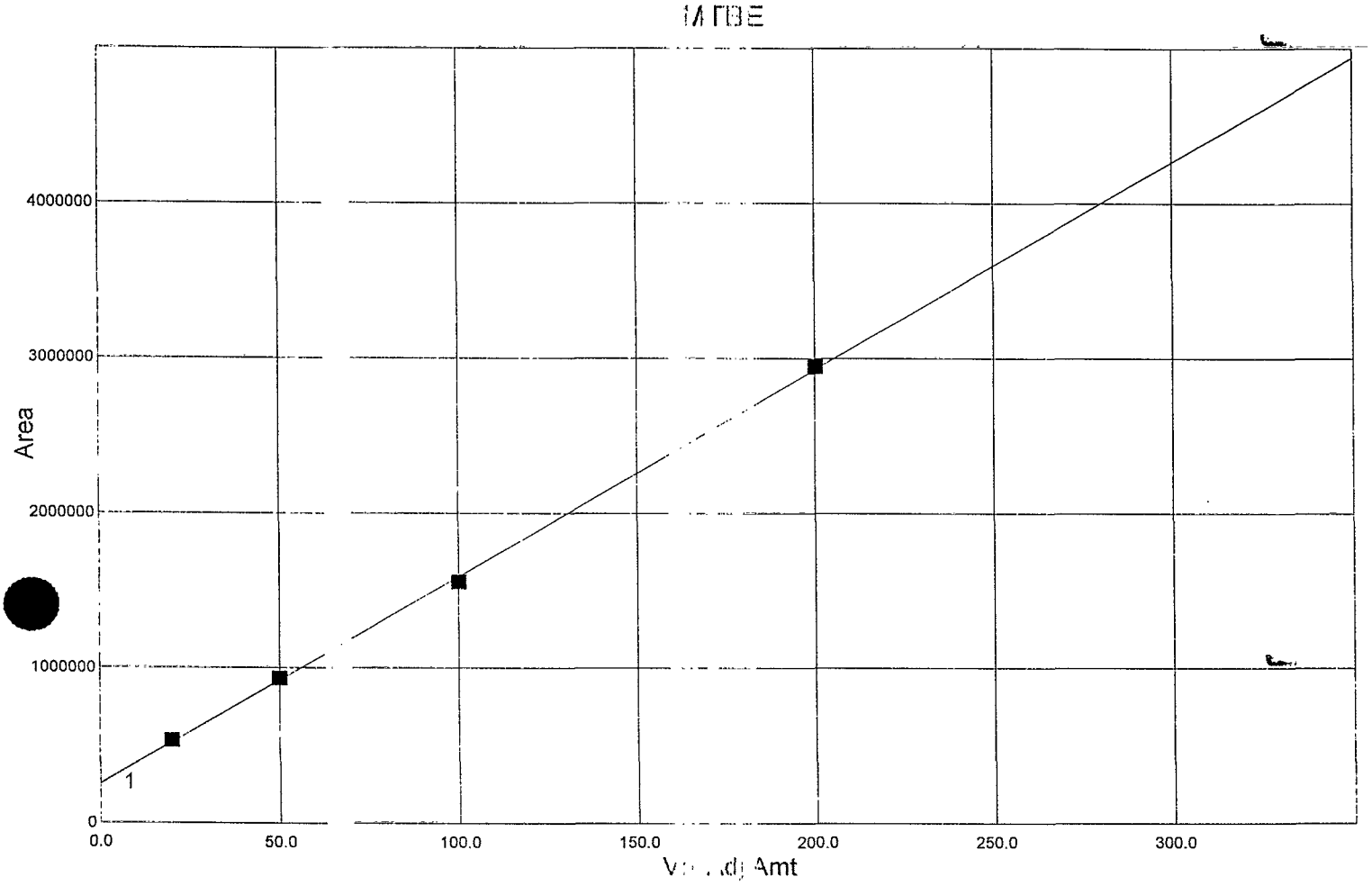


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	0.947440	0.042560	4.492	19382515.000	19826928.654	-444413.654	-2.241
2	1.980000	1.546422	0.433578	28.037	25637149.000	30164617.585	-4527468.585	-15.009
3	4.950000	5.494394	-0.544394	-9.908	66862310.000	61177684.379	5684625.621	9.292
4	9.900000	9.944712	-0.044712	-0.450	113333020.000	112866129.035	466890.965	0.414
5	19.800000	19.687031	0.112969	0.574	215063384.000	216243018.347	-1179634.347	-0.546

Fit Analysis Output For Method File: "C:\VG4\GC1\GC1B.MTH"
Component Name: "MTBE"
Date: 2/18/98 Time: 09:59 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.999455
Calibration Curve = (253326.483266) + (13393.63[illegible]) X



Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	21.848594	-0.848594	-4.070	532565.000	521199.244	11365.756	2.181
3	50.000000	51.820286	-0.820286	-1.614	933995.000	923008.384	10986.616	1.190
4	100.000000	97.242102	2.757898	2.836	1555752.000	1592690.285	-36938.285	-2.319
5	200.000000	201.089018	-1.089018	-0.542	2946640.000	2932054.087	14585.913	0.497

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 02/05/98 To 02/05/98

Date(s) received: 02/05/98 To 02/05/98

Date(s) reported: 02/06/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: A-2878

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-5-98	2-5-98	2-5-98	2-5-98	
		DATE EXTRACTED	2-5-98	2-5-98	2-5-98	2-5-98	
		LAB SAMPLE I.D.	MB	A2878-1	A2878-2	A2878-3	
		CLIENT SAMPLE I.D.	--	B6-6.25	B-9.25	B6-15.0	
		EXTRACTION SOLVENT	---	---	---	---	
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	
Toluene	0.002	0.002	ND	ND	ND	ND	
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	
Total Xylenes	0.003	0.002	ND	ND	ND	ND	
Gasoline	0.050	0.50	ND	ND	ND	ND	
MTBE	0.001	0.005	ND	ND	ND	ND	
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	97	91	102	99	
Trifluorotoluene (TFT)	100 ng	65-125	102	101	112	102	

(RWQCB LabForm10A;Ver12/94

Project No: A-2878

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-5-98	2-5-98	2-5-98	2-5-98	2-5-98
		DATE EXTRACTED	2-5-98	2-5-98	2-5-98	2-5-98	2-5-98
		LAB SAMPLE I.D.	A2878-4	A2878-5	A2878-6	A2878-7	A2878-8
		CLIENT SAMPLE I.D.	B6-20.0	B6-25.0	B6-30.0	B6-35.0	B6-40.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
ylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	102	102	109	101	106
Trifluorotoluene (TFT)	100 ng	65-125	114	108	104	105	106

(RWQCB LabForm10A;Ver12/94)

Project No: A-2878

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-5-98	2-5-98	2-5-98	2-5-98	2-5-98
		DATE EXTRACTED	2-5-98	2-5-98	2-5-98	2-5-98	2-5-98
		LAB SAMPLE I.D.	A2878-9	A2878-10	A2878-11	A2878-12	A2878-13
		CLIENT SAMPLE I.D.	B6-45.0	B6-49.0	B6-55.5	B6-59.25	B6-64.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	97	101	100	100	99
Trifluorotoluene (TFT)	100 ng	65-125	104	101	102	104	104

(RWQCB LabForm10A;Ver12/94)

Project No: A-2878

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-5-98	2-5-98	2-5-98	2-5-98	2-5-98
		DATE EXTRACTED	2-5-97	2-5-97	2-5-97	2-5-97	2-5-97
		LAB SAMPLE I.D.	A2878-14	A2878-14	A2878-14	A2878-14	A2878-14
		CLIENT SAMPLE I.D.	B6-69.0	B6-74.0	B6-79.0	B6-84.25	B6-90.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	99	101	106	107	100
Trifluorotoluene (TFT)	100 ng	65-125	102	105	105	102	105

(RWQCB LabForm10A;Ver12/94)

Project No: A-2878

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:09/28/97	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO LOT # LA 59451	LOT NUMBER: 092897-7
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	4.06	100 ng	3515874	28490	+23.4	+/-20%
Toluene	PID	6.69	100 ng	3418230	30720	+11.3	+/-20%
Ethylbenzene	PID	9.40	100 ng	2395640	24965	-4.0	+/-20%
Total Xylenes	PID	9.63/10.33	100 ng	5766796/2600980	29222/25381	-1.3/+2.5	+/-20%
Gasoline	PID	NA	9.90 ng	122294918	10422100	+17.1	+/-20%
MTBE	PID	2.5	100 ng	1239447	13394	-7.5	+/-20%

Project No: A-2878

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:2-5-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #:092897-7	
LAB SAMPLE I.D.:B6-25(GC1);B6-30(GC2)	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	300	302	101	300	304	101	0.7	65-125	20%
o-Xylene (GC1)	ND	210	214	102	210	212	101	0.9	65-125	20%
Toluene (GC2)	ND	200	202	101	200	201	101	0.5	65-125	20%
o-Xylene(GC2)	ND	165	172	104	165	171	104	0.6	65-125	20%
Gasoline (GC1)	ND	9.90	10.78	109	9.90	10.77	109	0.1	65-125	20%
Gasoline (GC2)	ND	9.90	9.98	101	9.90	9.93	100	0.5	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

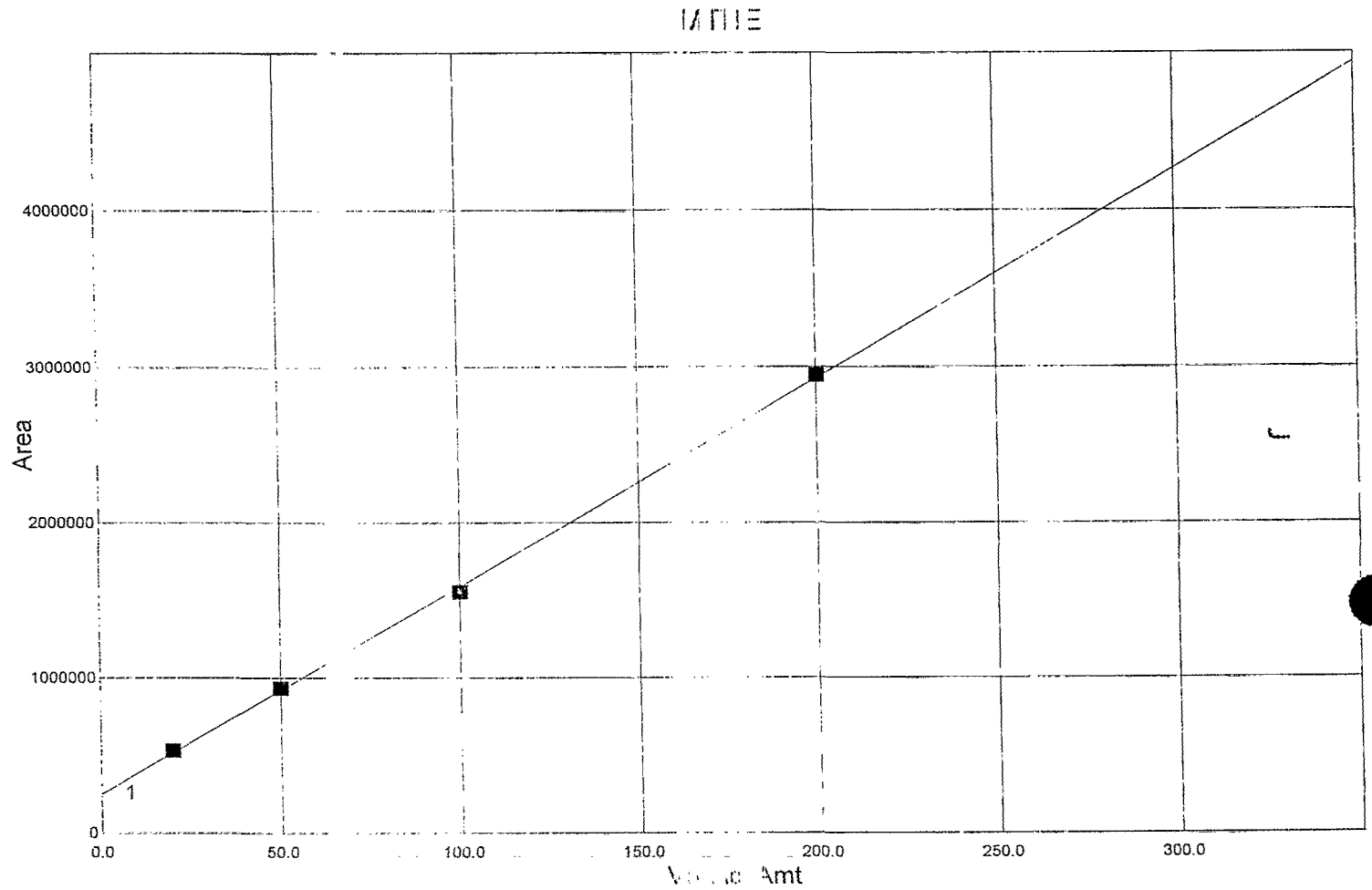
DATE PERFORMED:2-5-98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.: LCS 8020 +MTBE; LCS GASOLINE
T NUMBER:013098-1	
ATE OF SOURCE: 01/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	123.4	123	80-120
Toluene	100 ng	111.3	111	80-120
Ethylbenzene	100 ng	95.0	96	80-120
m,p-Xylene	200 ng	197.3	89	80-120
o-Xylene	100 ng	102.5	102	80-120
(GC2)	--	--	--	--
Benzene	100 ng	93.2	93	80-120
Toluene	100 ng	103.9	104	80-120
Ethylbenzene	100 ng	86.7	87	80-120
m,p-Xylene	100 ng	99.2	99	80-120
o-Xylene	100 ng	92.4	92	80-120
Gasoline (GC1)	9.90 ng	11.73	119	80-120
Gasoline (GC2)	9.90 ng	9.57	97	80-120
MTBE (GC1)	100 ng	92.54	93	80-120
MTBE (GC2)	100 ng	124.52	125	80-120

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "MTBE"
Date: 2/18/98 Time: 10:16 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .999455
Calibration Curve = (253326.483266) + (13393.63 [illegible]

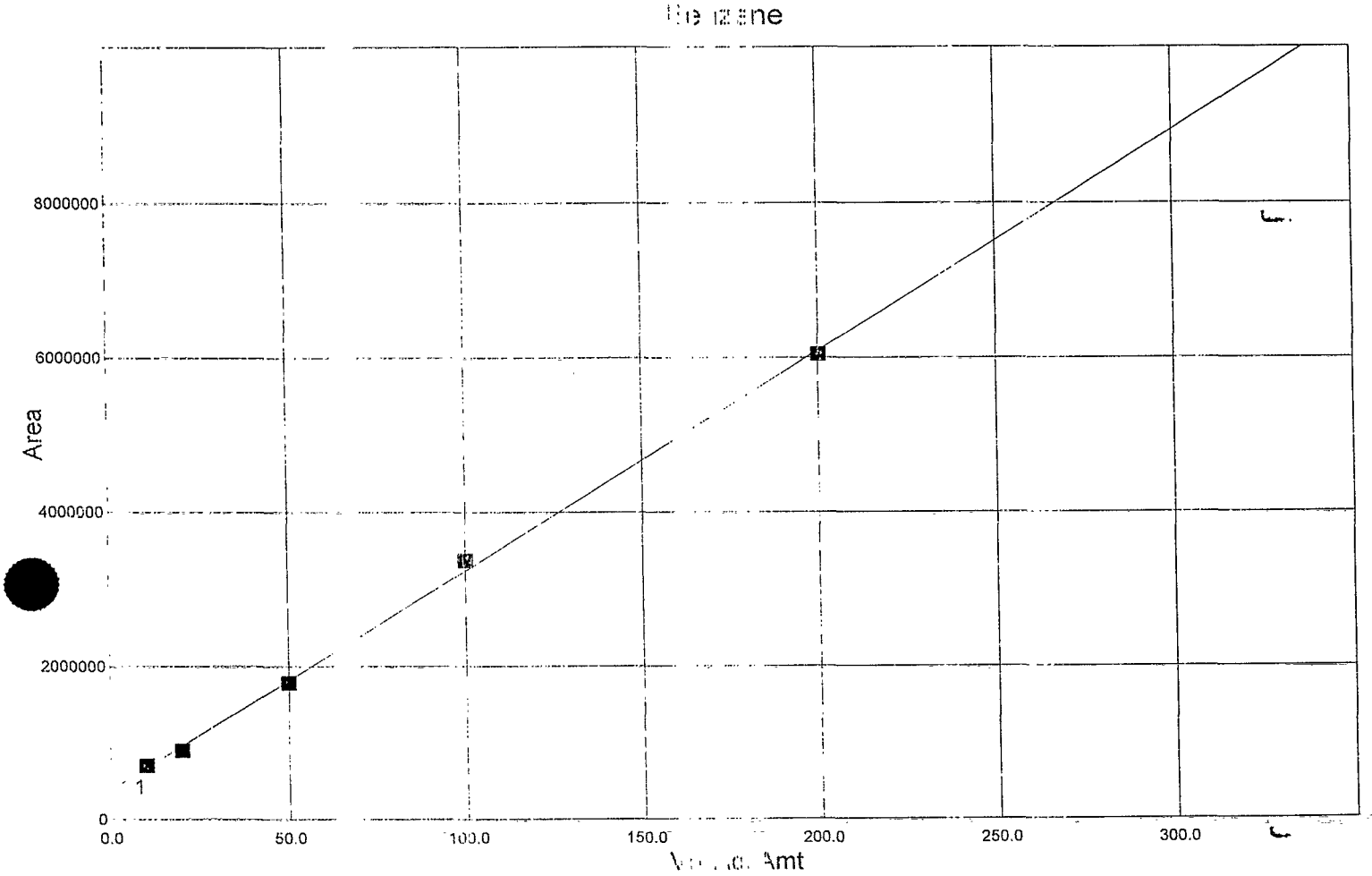


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	2[illegible].848594	-0.848594	-4.070	[illegible]565.000	522199.244	11365.756	2.181
3	50.000000	5[illegible].820286	-0.820286	-1.614	[illegible]3995.000	923308.384	10986.616	1.190
4	100.000000	9[illegible].242102	2.757898	2.836	[illegible]5752.000	1592690.285	-36938.285	-2.319
5	200.000000	20[illegible].083018	-1.083018	-0.542	[illegible]6640.000	2932054.087	14585.913	0.[illegible]

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:16 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .998634
Calibration Cur = (402259.966833) + (28490.05[illegible]

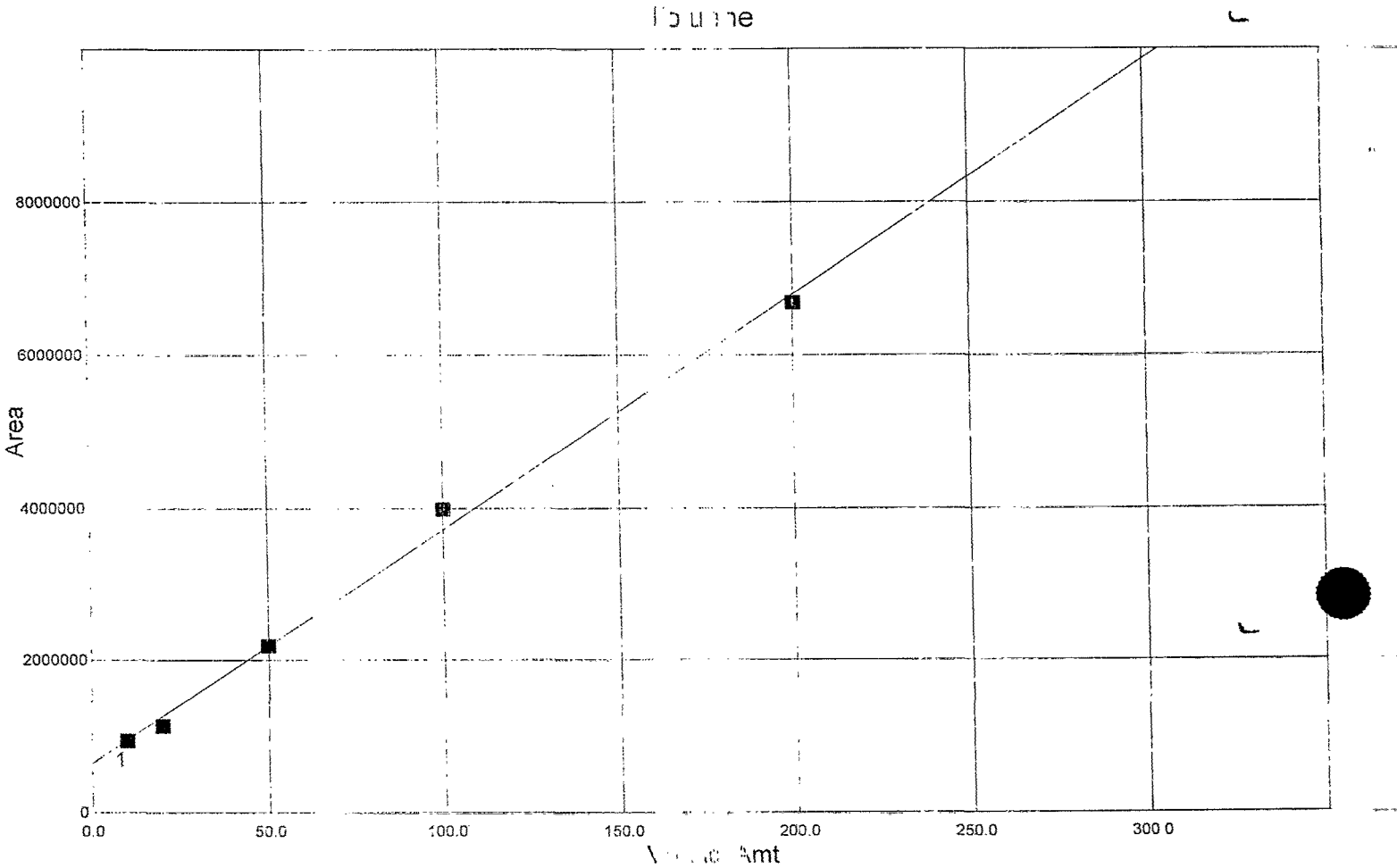


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]93909	-0.793909	-7.355	[illegible]9779.000	687160.498	22618.502	3.292
2	20.000000	1[illegible]21695	2.373305	13.496	[illegible]4303.000	972061.028	-67758.028	-6.971
3	50.000000	4[illegible]36485	1.263515	2.593	[illegible]10765.000	1826762.620	-35997.620	-1.971
4	100.000000	10[illegible]67795	-4.667795	-4.460	[illegible]4251.000	3251265.274	132985.726	4.090
5	200.000000	19[illegible]80116	1.819884	0.918	[illegible]8422.000	6100270.580	-51848.580	-0.850

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:16 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .995538
Calibration Curve = (655436.449420) + (30720.03 X)

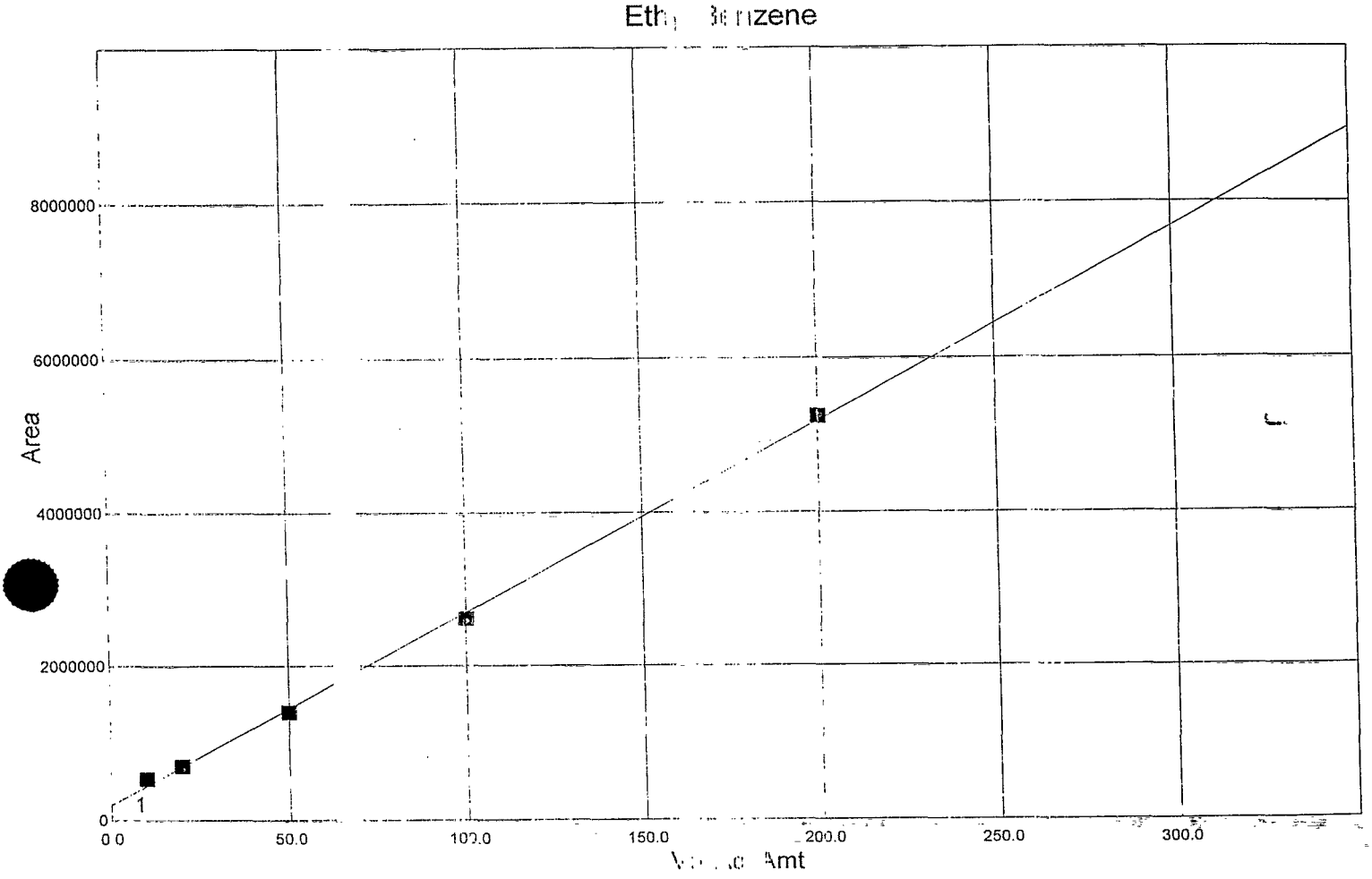


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	166643	0.533357	5.634	6254.000	962638.759	-16384.759	-1.702
2	20.000000	1 176337	1.223663	26.722	1 0088.000	1269339.068	-129751.068	-10.218
3	50.000000	4 971517	0.028483	0.057	2 0565.000	2191439.996	-874.996	-0.040
4	100.000000	10 658698	-8.658698	-7.969	3 3437.000	3727441.542	265995.458	7.136
5	200.000000	19 126806	3.873194	1.975	6 0460.000	6799444.635	-118984.635	-1.750

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:16 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998618
Calibration Curve = (207055.325041) + (24965.12 * X

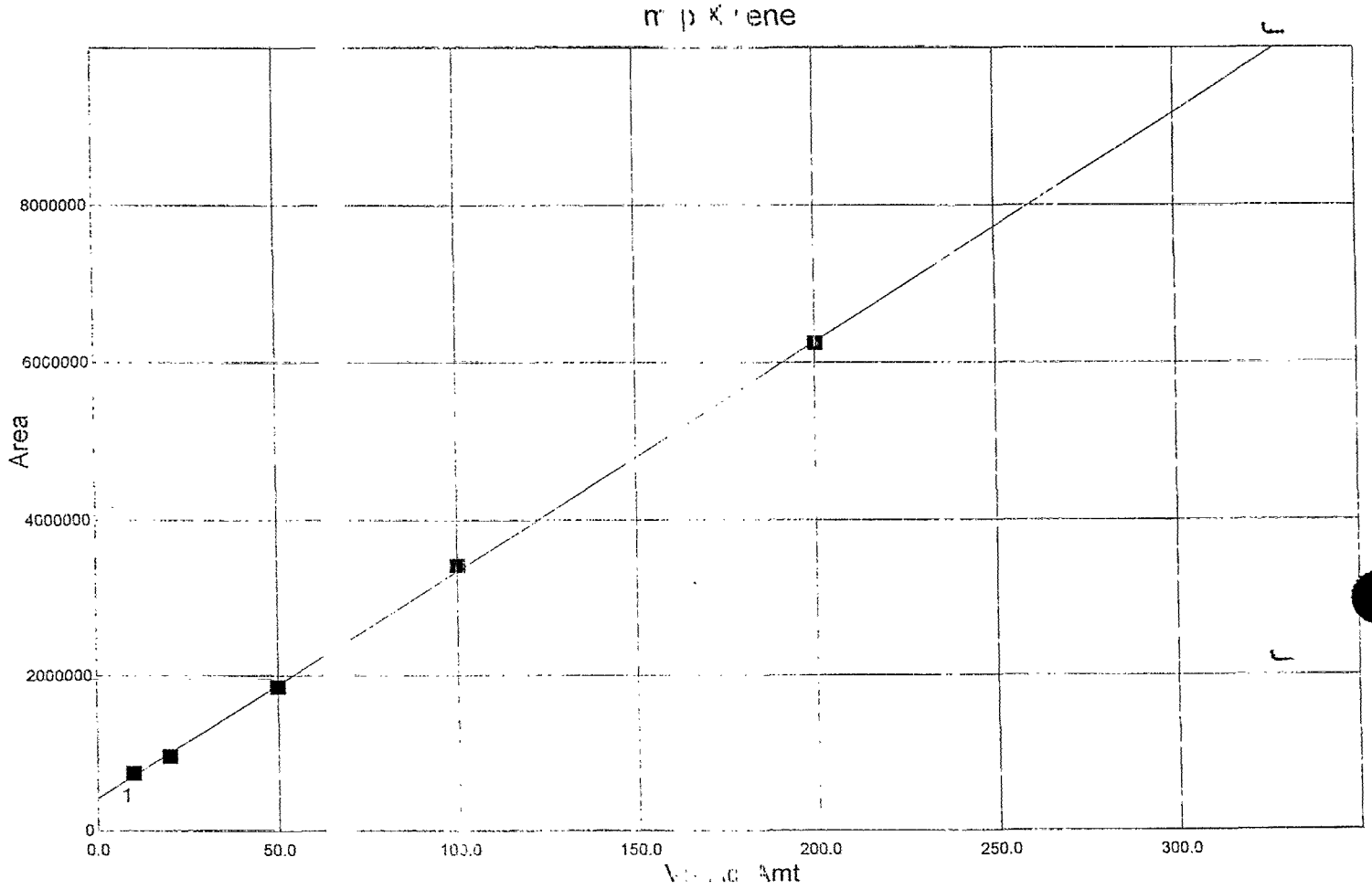


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]93888	-3.493888	-25.892	[illegible]3932.000	456706.624	87225.376	19.099
2	20.000000	2[illegible]9991	-0.019991	-0.100	[illegible]6357.000	706357.924	499.076	0.071
3	50.000000	4[illegible]6299	2.113701	4.414	[illegible]543.000	1455311.822	-52768.822	-3.626
4	100.000000	9[illegible]96150	3.503820	3.631	[illegible]6095.000	2703568.318	-87473.318	-3.[illegible]
5	200.000000	20[illegible]03642	-2.103642	-1.041	[illegible]599.000	5200081.312	52517.688	1.010

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:17 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.999541
Calibration Curve = (422455.767828) + (29221.77 [illegible]

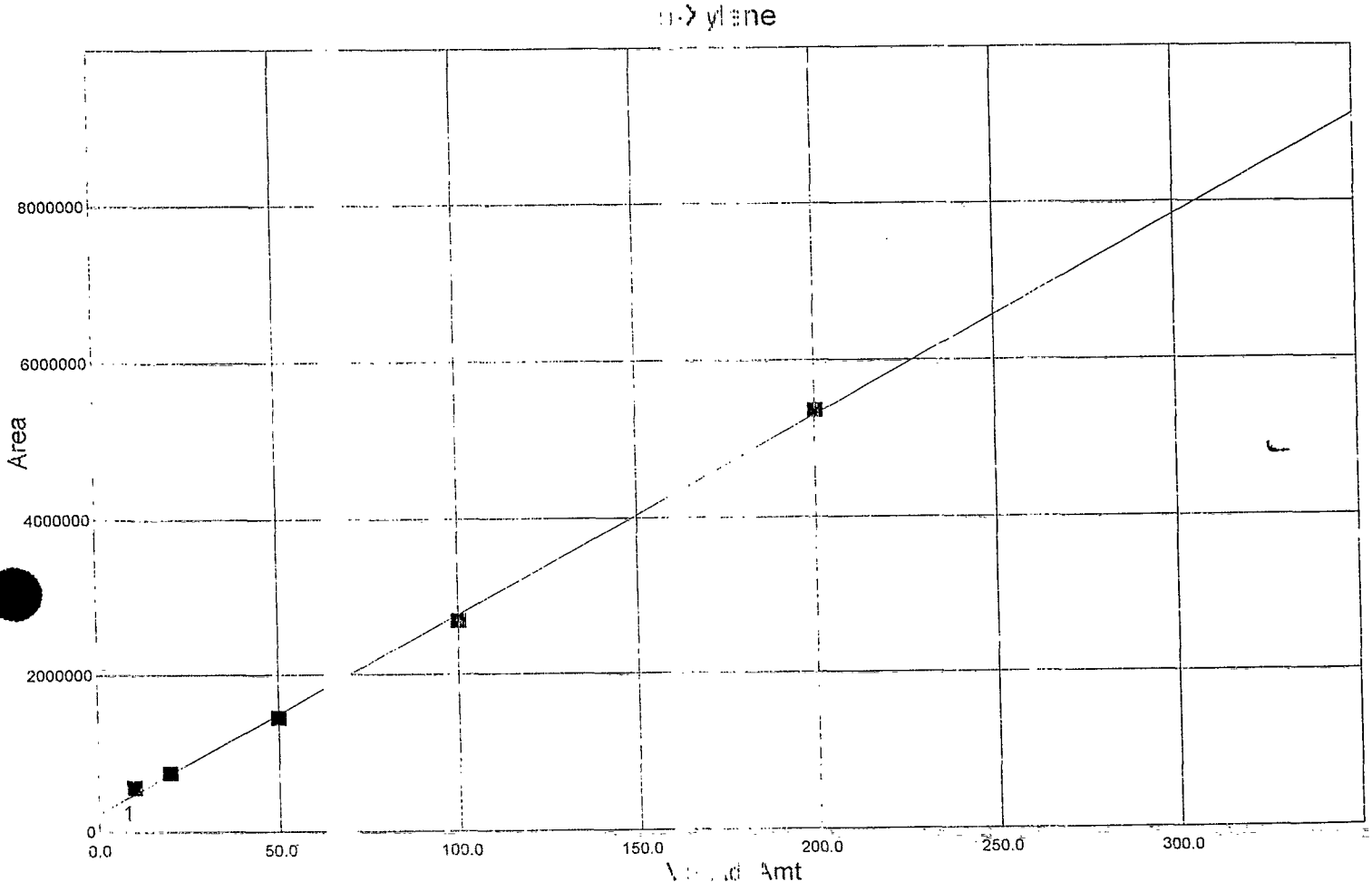


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]	[illegible]0.976550	-8.897	[illegible]3210.000	[illegible]714673.483	28536.517	3.993
2	20.000000	1[illegible]	1.606241	8.733	[illegible]9954.000	1006391.197	-46937.197	-4.662
3	50.000000	4[illegible]	0.930209	1.896	[illegible]6362.000	1863544.342	-27182.342	-1.443
4	100.000000	10[illegible]	-0.431102	-2.373	[illegible]15674.000	3344532.915	71041.085	2.124
5	200.000000	19[illegible]	0.871202	0.438	[illegible]1352.000	6266810.063	-25458.063	-0.406

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:17 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .998867
Calibration Curve = (237558.446103) + (25380.63[illegible]

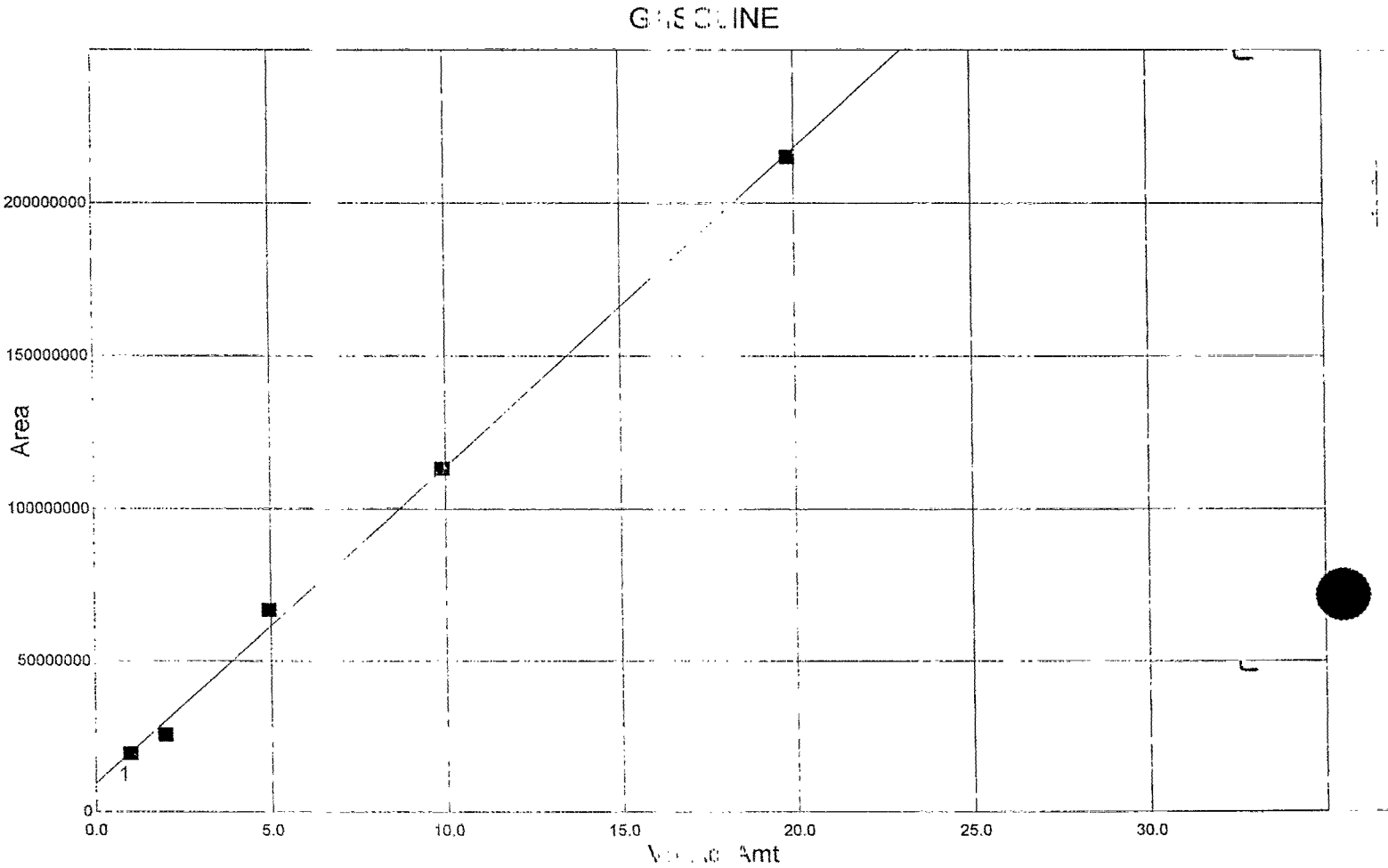


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].009704	-3.009704	-23.134	[illegible]7753.000	491364.808	76388.192	15.546
2	20.000000	2[illegible].222959	-0.222959	-1.103	[illegible]0830.000	745171.171	5658.829	0.759
3	50.000000	4[illegible].125805	1.874195	3.894	[illegible]9022.000	1506590.258	-47568.258	-3.157
4	100.000000	9[illegible].691530	3.308470	3.422	[illegible]651.000	2775622.070	-83971.070	-3.025
5	200.000000	20[illegible].950003	-1.950003	-0.966	[illegible]3179.000	5313685.693	49492.307	0.[illegible]

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:17 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.997886
Calibration Curve = (9489239.723051) + (1044211 X) X

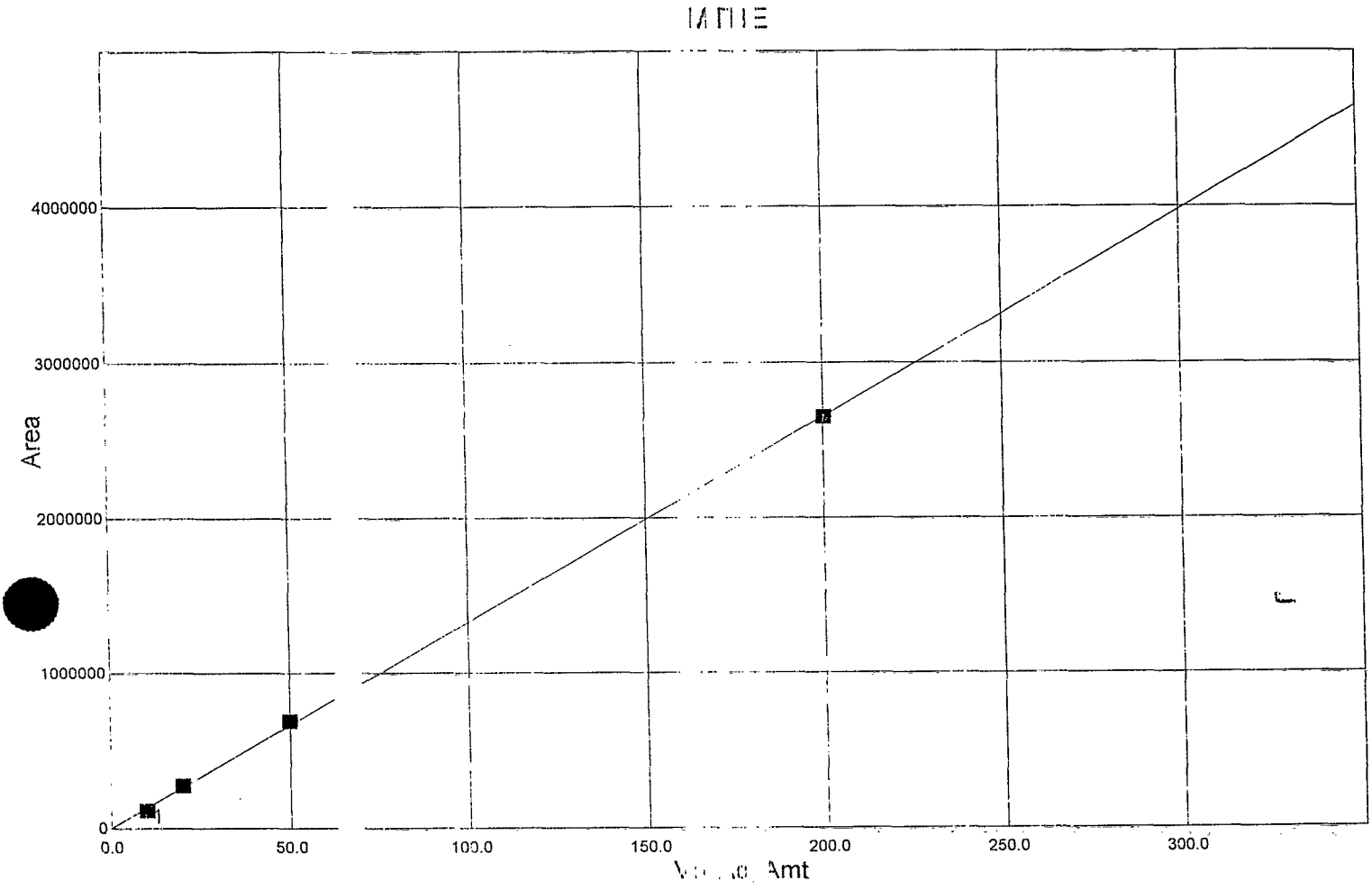


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	947490	0.042560	4.492	19515.000	19826928.654	-444413.654	-2.241
2	1.980000	346422	0.433578	28.037	30157149.000	30164617.585	-4527468.585	-15.009
3	4.950000	194394	-0.544394	-9.908	61172310.000	61177684.379	5684625.621	9.292
4	9.900000	344712	-0.044712	-0.450	112873020.000	112866129.035	466890.965	0.414
5	19.800000	1 197031	0.112969	0.574	215063384.000	216243018.347	-1179634.347	-0.546

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "MT[illegible]"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Factor = 1.0 (No Weighting) r = 1.999780
Calibration Curve = (5476.048316) + (13260.0527[illegible])

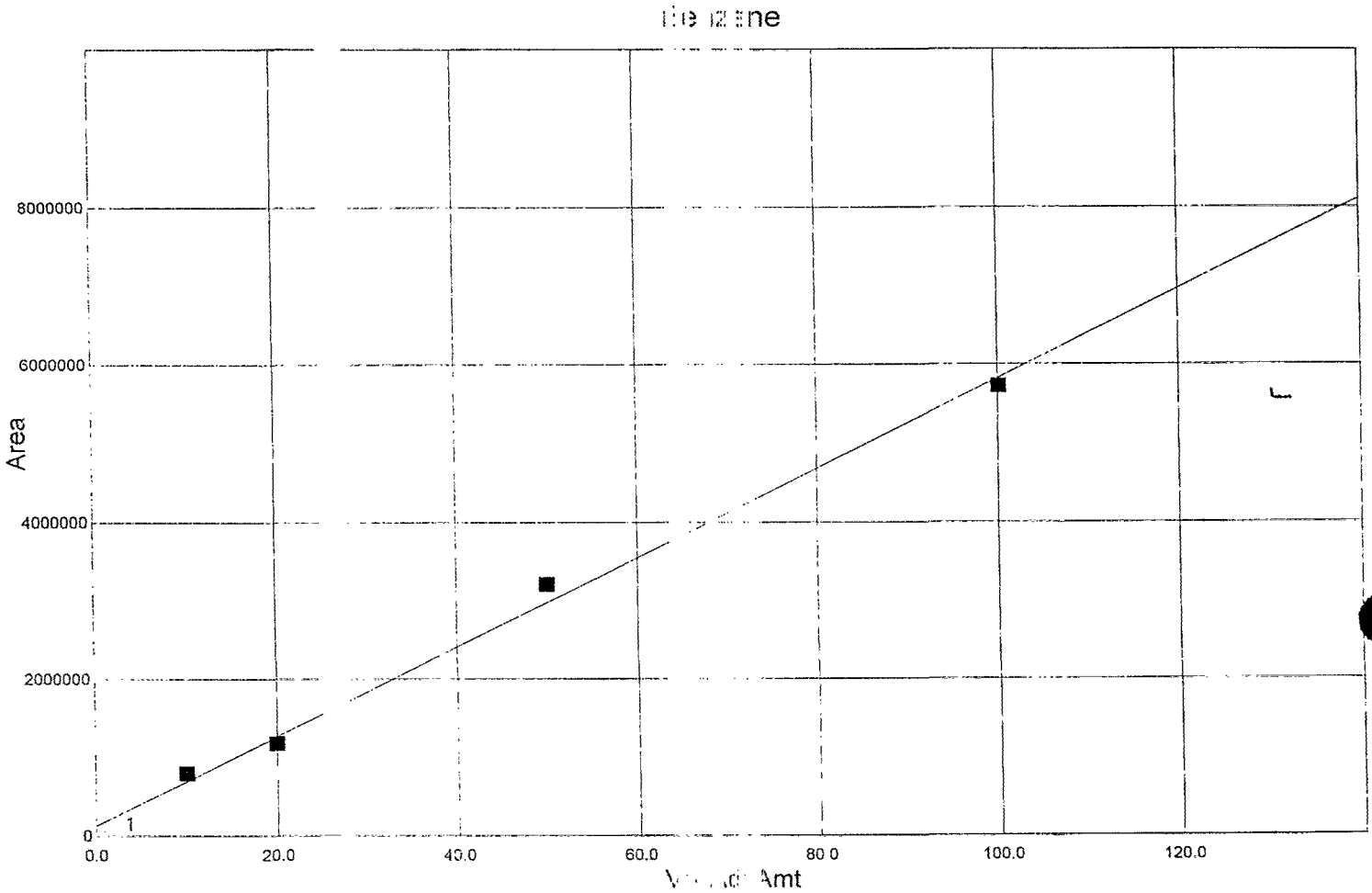


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]95136	1.504864	17.714	118122.000	138076.575	-19954.575	-14.452
2	20.000000	2[illegible]8602	-0.583602	-2.859	278482.000	270677.102	7804.898	2.883
3	50.000000	5[illegible]50469	-1.750469	-3.333	691690.000	668478.684	23211.316	3.472
5	200.000000	19[illegible]78766	0.421234	0.211	2[illegible]1901.000	2657486.590	-5585.590	-0.210

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) = 1.995256
Calibration Cur = (134543.049080) + (56953.62

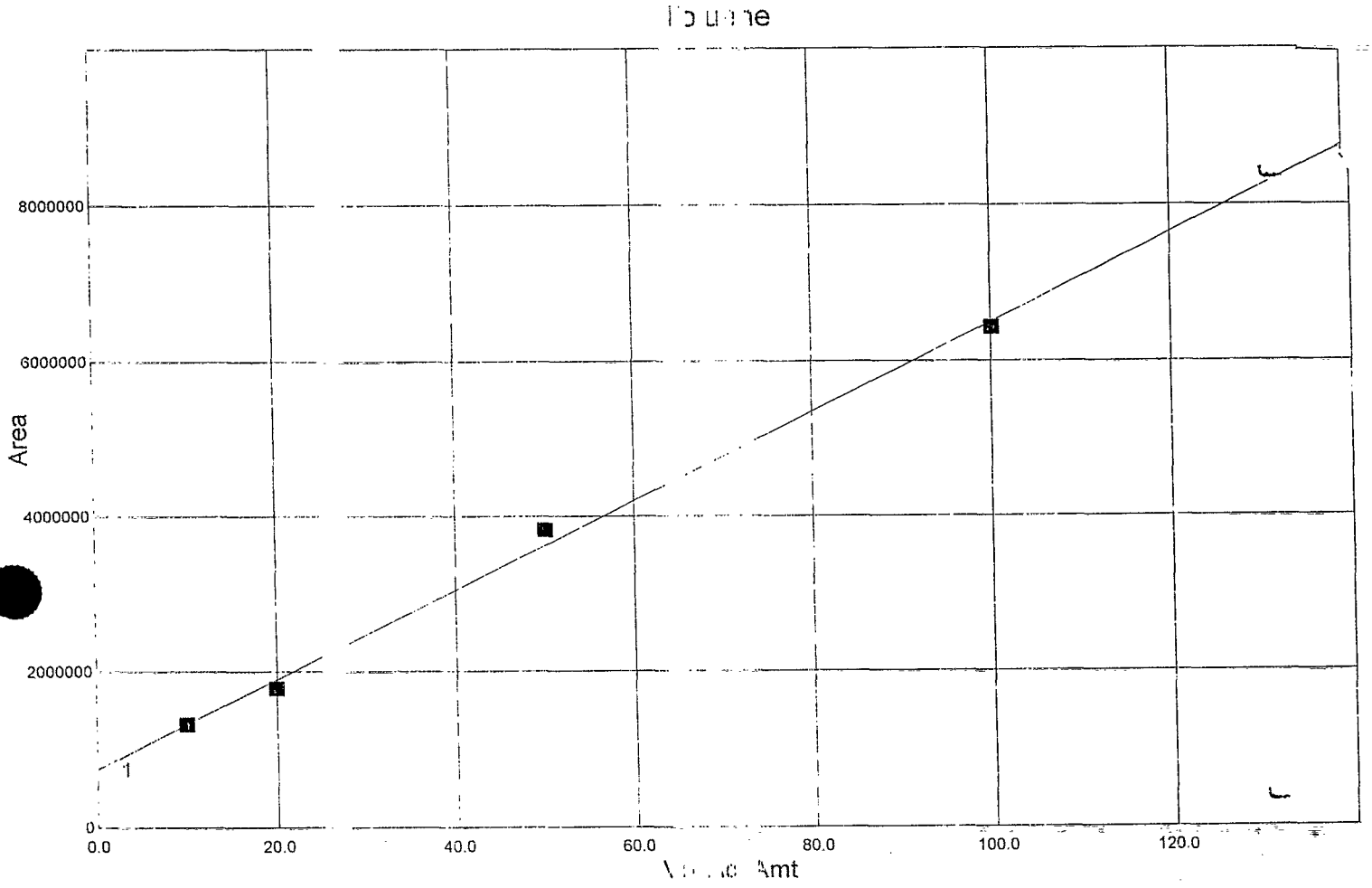


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1 769242	-1.769242	-15.033	4844.000	704079.258	100764.742	14.312
2	20.000000	1 34578	1.565422	8.492	1 4459.000	1273615.466	-89156.466	-7.000
3	50.000000	5 044693	-4.044693	-7.494	3 12584.000	2982224.092	230359.908	7.724
4	100.000000	9 13814	1.886186	1.922	5 22480.000	5829905.135	-107425.135	-1.843

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.996421
Calibration Curve = (750593.551020) + (57549.13[illegible]) X

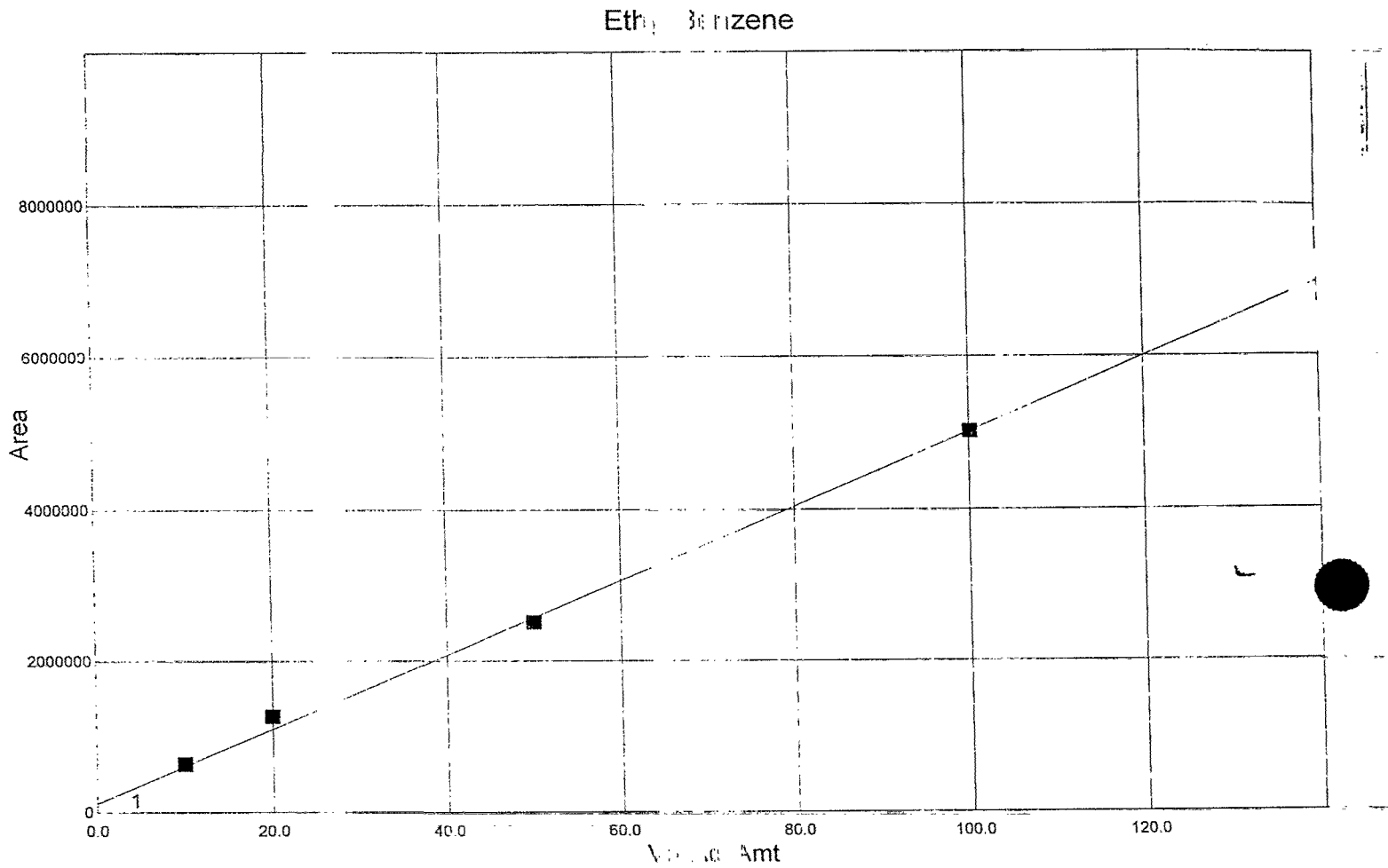


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]21008	0.078592	0.796	[illegible]1539.000	1326084.929	-4545.929	-0.343
2	20.000000	1[illegible]949677	[illegible]2.050323	11.423	[illegible]3582.000	1901576.306	-117994.306	-6.205
3	50.000000	5[illegible]122702	-3.422702	-6.407	[illegible]5024.000	3628050.439	196973.561	5.429
4	100.000000	9[illegible]06613	[illegible]1.293387	1.310	[illegible]1074.000	6505507.327	-74433.327	-1.144

Fit Analysis Output for Method File: "C:\[illegible]\GC2B\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) [illegible] = [illegible].997039
Calibration Cur = (123449.012270) + (49023.60[illegible]

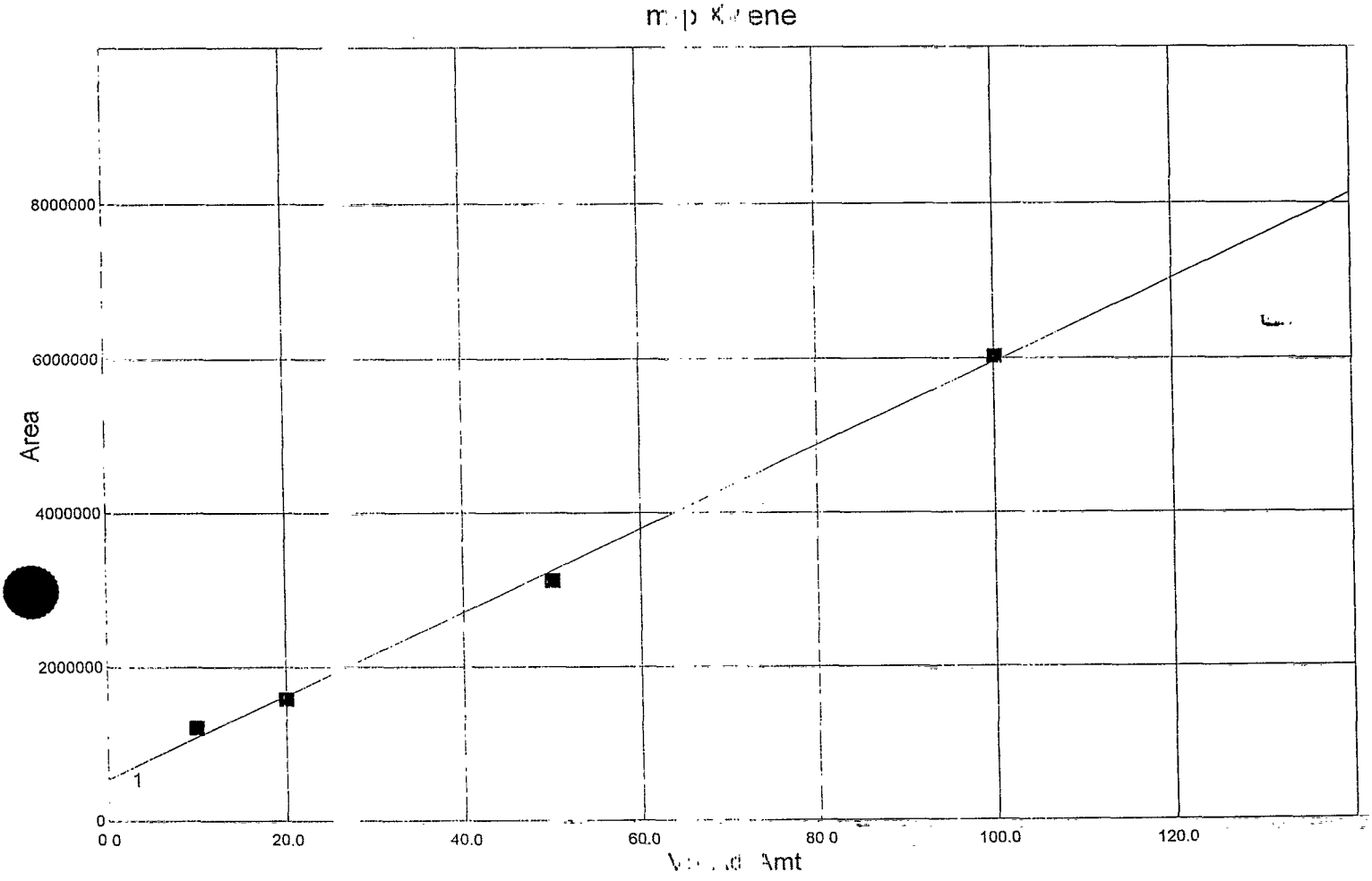


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]26276	-0.526276	-5.030	[illegible]9485.000	613585.064	25799.936	4.204
2	20.000000	2[illegible]40654	-2.340654	-14.313	[illegible]7692.000	1103921.117	163770.883	14.835
3	50.000000	4[illegible]43967	1.256033	2.577	[illegible]13054.000	2574629.273	-61575.273	-2.392
4	100.000000	9[illegible]07258	0.092742	0.093	[illegible]11263.000	5025309.534	-4546.534	-0.090

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = .997343
Calibration Curve = (552212.183673) + (54091.44 [illegible]

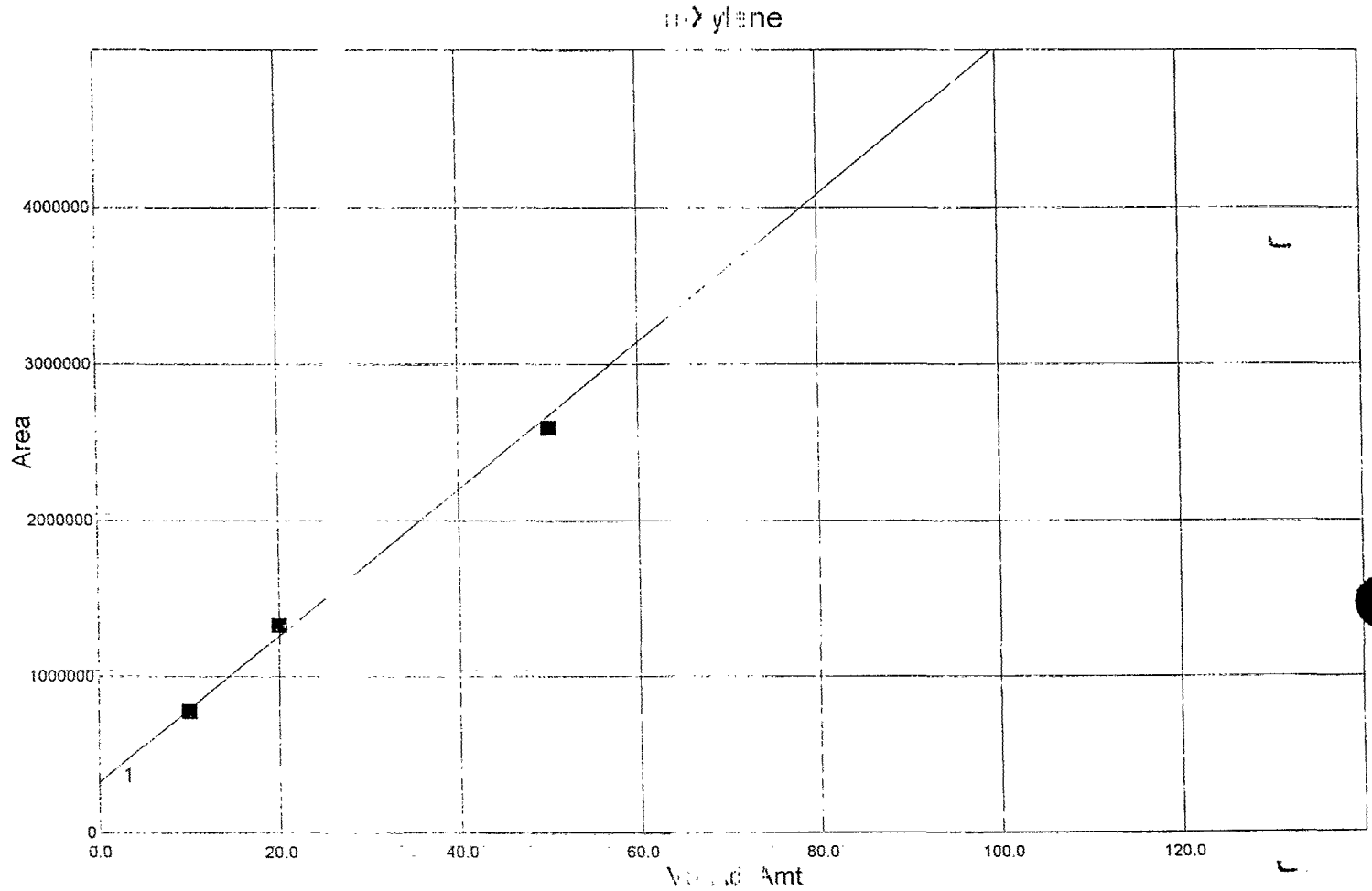


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].78003	-2.178003	-17.885	[illegible]10938.000	1053126.643	117811.357	10.777
2	20.000000	1[illegible].087137	0.912863	4.783	[illegible]4663.000	1634041.102	-49378.102	-3.022
3	50.000000	4[illegible]40175	2.459825	5.174	[illegible]3729.000	3256784.480	-133055.480	-4.085
4	100.000000	10[illegible].94685	-1.194685	-1.181	[illegible]5979.000	5961356.776	64622.224	1.084

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:15 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 1.998900
Calibration Curve = (324351.071429) + (47002.39[illegible]

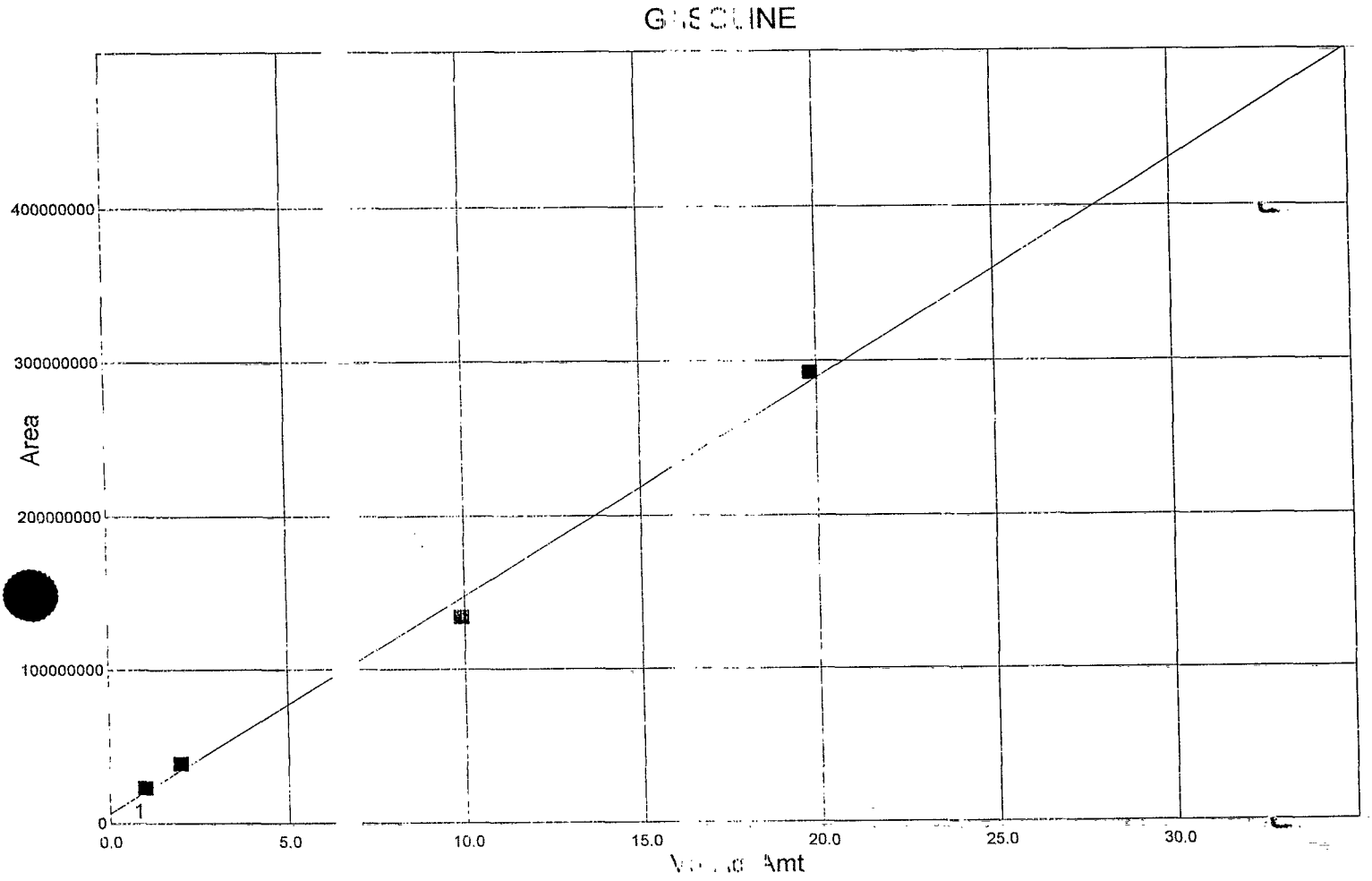


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]65996	0.334004	3.455	[illegible]8676.000	794375.000	-15699.000	-1.976
2	20.000000	2[illegible].35205	-1.435205	-6.696	[illegible]11857.000	1264398.929	67458.071	5.335
3	50.000000	4[illegible]04850	1.695120	3.539	[illegible]4796.000	2674470.714	-79674.714	-2.979
4	100.000000	10[illegible]93920	-0.593920	-0.530	[illegible]2506.000	5024590.357	27915.643	0.556

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:16 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 0.995350
Calibration Cur = (6819405.113153) + (1412713 [illegible] X



Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]72489	-0.182489	-15.564	[illegible]3316.000	20804265.437	2578050.563	12.392
2	1.980000	[illegible]178333	-0.298333	-13.094	[illegible]4722.000	34790125.756	4214596.244	12.114
4	9.900000	[illegible]16270	0.883730	9.802	[illegible]2439.000	146677008.308	-12484569.308	-8.512
5	19.800000	[illegible]02907	-0.402907	-1.994	[illegible]7534.000	286535611.498	5691922.502	1.986

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 01/30/98 To 01/30/98

Date(s) received: 01/30/98 To 01/30/98

Date(s) reported: 02/02/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	MB	MB	MB	MB	A2873-24
		CLIENT SAMPLE I.D.	--	--	--	--	B9-6.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	79	107	103	107	86
Trifluorotoluene (TFT)	100 ng	65-125	86	100	108	119	92

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	A2873-25	A2873-26	A2873-27	A-2873-1	A-2873-2
		CLIENT SAMPLE I.D.	B9-10.25	B9-15.75	B9-21.0	B10-6.25	B10-12.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
thylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	95	89	91	92	102
Trifluorotoluene (TFT)	100 ng	65-125	94	82	87	105	103

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	A2873-3	A2873-4	A2873-5	A-2873-6	A-2873-7
		CLIENT SAMPLE I.D.	B10-17.5	B10-21.0	B10-25.0	B10-30.8	B10-36.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	96	110	120	106	113
Trifluorotoluene (TFT)	100 ng	65-125	104	105	115	101	111

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	A2873-8	A2873-9	A2873-10	A-2873-11	A-2873-12
		CLIENT SAMPLE I.D.	B10-41.0	B10-45.0	B10-49.8	B10-55.0	B10-60.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	104	94	122	102	93
Trifluorotoluene (TFT)	100 ng	65-125	101	95	114	101	97

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	A2873-13	A2873-14	A2873-15	A-2873-16	A-2873-17
		CLIENT SAMPLE I.D.	B10-65.0	B10-70.0	B10-75.0	B10-80.0	B10-85.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	92	80	99	97	109
Trifluorotoluene (TFT)	100 ng	65-125	100	91	105	105	109

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		DATE EXTRACTED	1-30-98	1-30-98	1-30-98	1-30-98	1-30-98
		LAB SAMPLE I.D.	A2873-18	A2873-19	A2873-20	A-2873-21	A-2873-22
		CLIENT SAMPLE I.D.	B10-90.0	B10-95.0	B10-100.0	B10-105.0	B10-110.0
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	83	113	89	84	73
Trifluorotoluene (TFT)	100 ng	65-125	89	108	94	90	84

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	1-30-98				
		DATE EXTRACTED	1-30-98				
		LAB SAMPLE I.D.	A2873-23				
		CLIENT SAMPLE I.D.	B10-115.0				
		EXTRACTION SOLVENT	---				
		EXTRACTION METHOD	EPA 5030				
		DILUTION FACTOR	1				
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND				
Toluene	0.002	0.002	ND				
Ethylbenzene	0.003	0.002	ND				
Total Xylenes	0.003	0.002	ND				
Gasoline	0.050	0.50	ND				
MTBE	0.001	0.005	ND				
Surrogate	Conc	ACP %	% RC				
Bromofluorobenzene(BFB)	100 ng	65-125	77				
Trifluorotoluene (TFT)	100 ng	65-125	96				

(RWQCB LabForm10A;Ver12/94)

Project No: A-2873

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

DATE PERFORMED:092897	ANALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
INSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT #LA59457	LOT NUMBER:092897-7
DATE OF SOURCE: 09-28-97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	4.08	100 ng	3250991	28490	+14.1	+/-20%
Toluene	PID	6.71	100 ng	2836226	30720	-7.7	+/-20%
Ethylbenzene	PID	9.43	100 ng	2091462	24965	-16.2	+/-20%
Total Xylenes	PID	9.66/10.35	100 ng	4849950	29222/25381	-5.2/-20.0	+/-20%
Gasoline	PID	NA	9.90 ng	96131881	10422100	-6.8	+/-20%
MTBE	PID	1.30	100 ng	661643	5614	+17.9	+/-20%

Project No: A-2873

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:1-30-98	ANALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
BATCH #:092897-7	
LAB SAMPLE I.D.:B10-115.5(GC1);B9-21.0(GC2)	UNIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	300	305.7	102	300	305.3	102	0.1	65-125	20%
o-Xylene (GC1)	ND	210	214.0	102	210	219.0	104	2.3	65-125	20%
Toluene (GC2)	ND	200	196.4	98	300	200.3	100	2.0	65-125	20%
o-Xylene(GC2)	ND	155	164.6	106	210	169.6	109	3.0	65-125	20%
Gasoline (GC1)	ND	9.90	11.22	113	9.90	11.42	115	1.8	65-125	20%
Gasoline (GC2)	ND	9.90	9.20	93	9.90	9.77	99	6.0	65-125	20%

III. Laboratory Quality Control Check Sample (LCS)

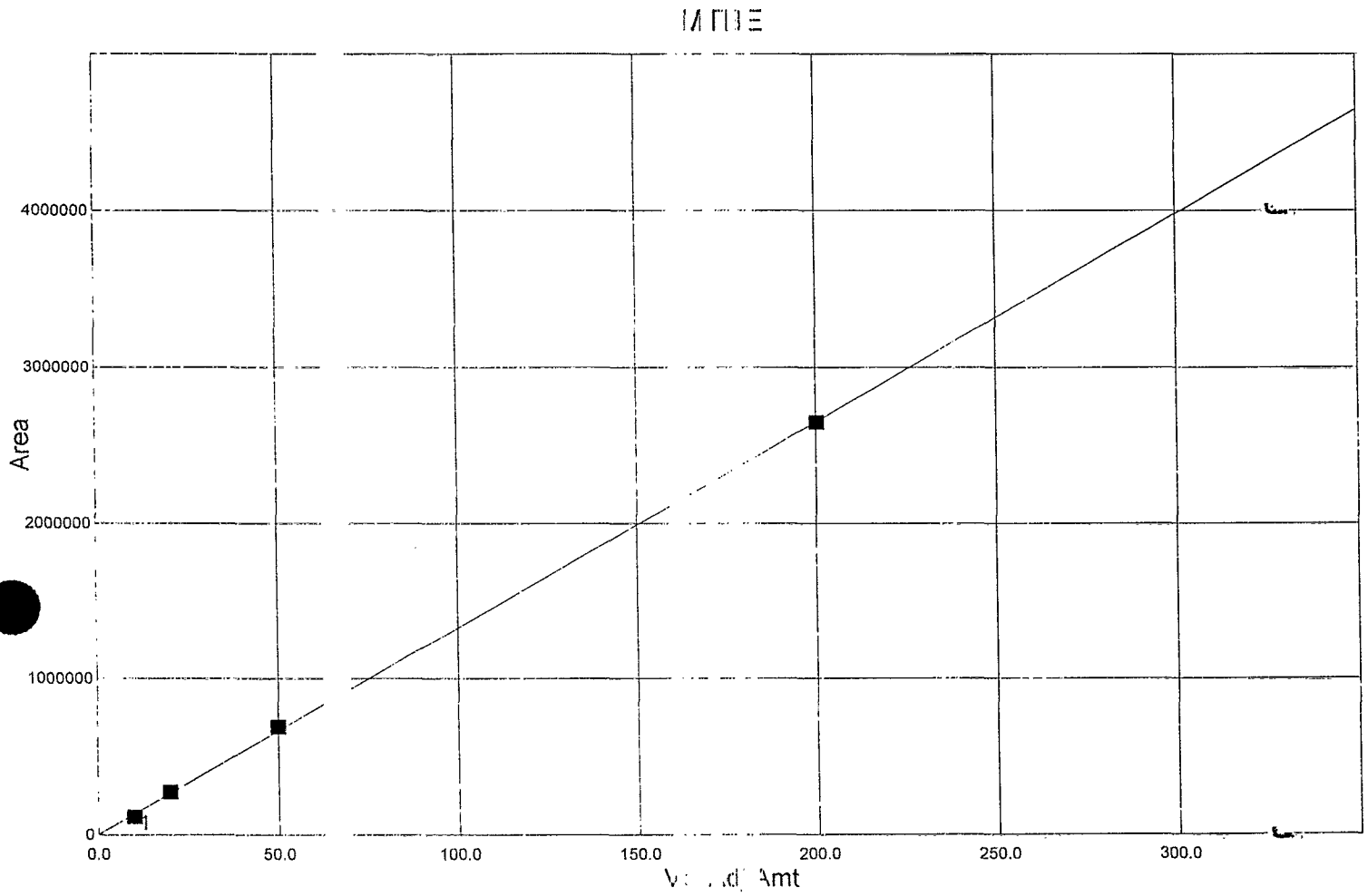
DATE PERFORMED:1-30-98	ANALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
SUPPLY SOURCE: SUPELCO/UNOCAL	LAB LCS I.D.:LCS 8020 + MTBE
LOT NUMBER:013098-1	
DATE OF SOURCE: 01/30/98	UNIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng	128.8	129	80-120
Toluene	100 ng	137.9	138	80-120
Ethylbenzene	100 ng	106.2	106	80-120
m,p-Xylene	200 ng	110.9	111	80-120
o-Xylene	100 ng	101.4	101	80-120
(GC2)	--	--	--	--
Benzene	100 ng	106.5	107	80-120
Toluene	100 ng	118.3	118	80-120
Ethylbenzene	100 ng	104.2	104	80-120
m,p-Xylene	100 ng	116.7	117	80-120
o-Xylene	100 ng	109.7	110	80-120
Gasoline (GC1)	9.90 ng	9.22	93	80-120
Gasoline (GC2)	9.90 ng	10.54	106	80-120
MTBE (GC1)	100 ng	76.56	77	80-120
MTBE (GC2)	100 ng	87.16	87	80-120

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "MTBE"
Date: 2/18/98 Time: 10:04 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 0.999780
Calibration Cur = (5476.048316) + (13260.0527)

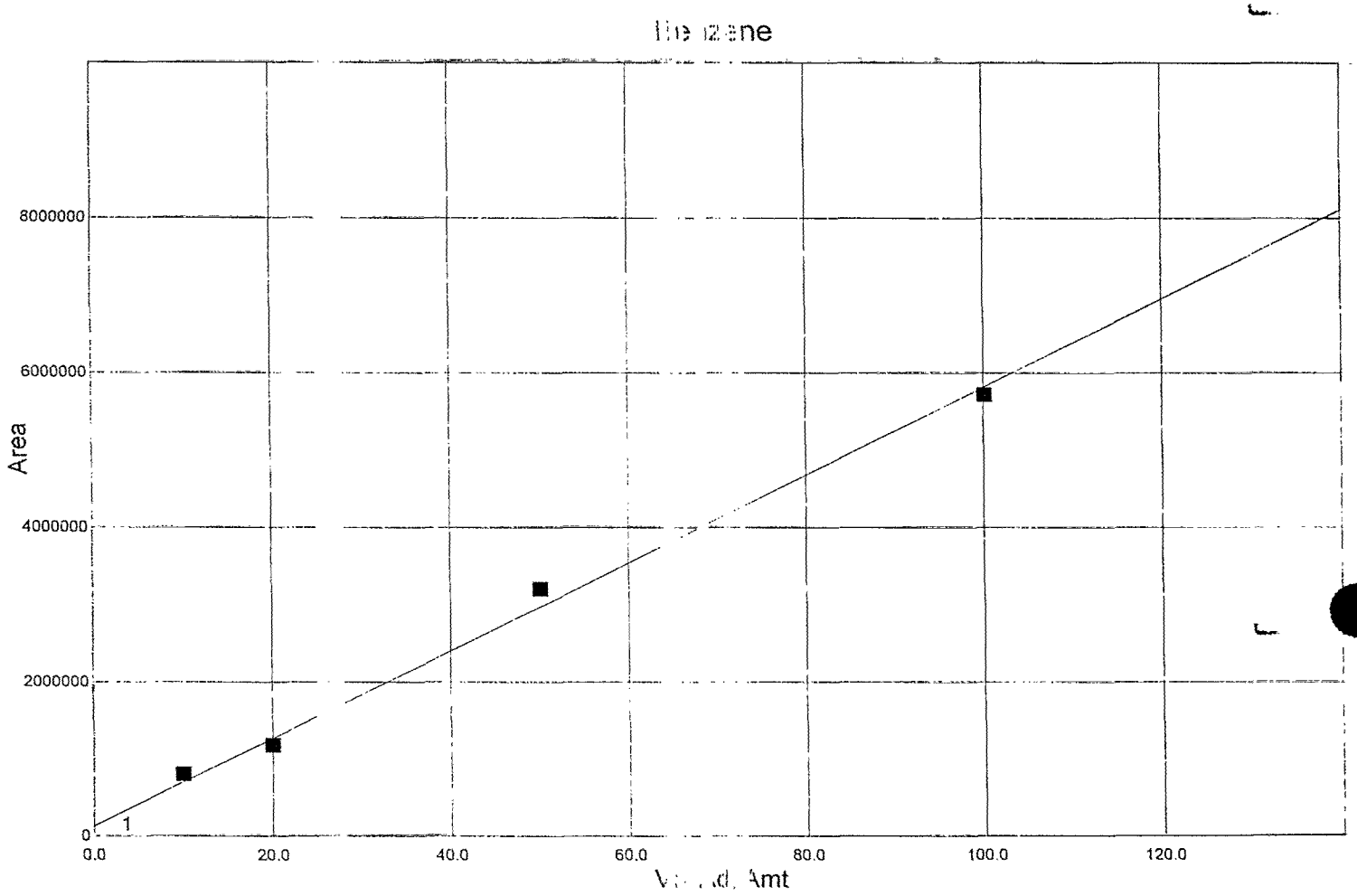


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]95136	1.504864	17.714	118122.000	138076.575	-19954.575	-14.452
2	20.000000	2[illegible]88602	-0.588602	-2.859	[illegible]78482.000	270677.102	7804.898	2.883
3	50.000000	5[illegible]50469	-1.750469	-3.333	[illegible]690.000	668478.684	23211.316	3.472
5	200.000000	19[illegible]78766	0.421234	0.211	2[illegible]901.000	2657486.590	-5585.590	-0.210

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order - Inc Origin
Weighting Facto = 1.0 (No Weighting) r = 1.995256
Calibration Cur = (134543.049080) + (56953.62[illegible]) X

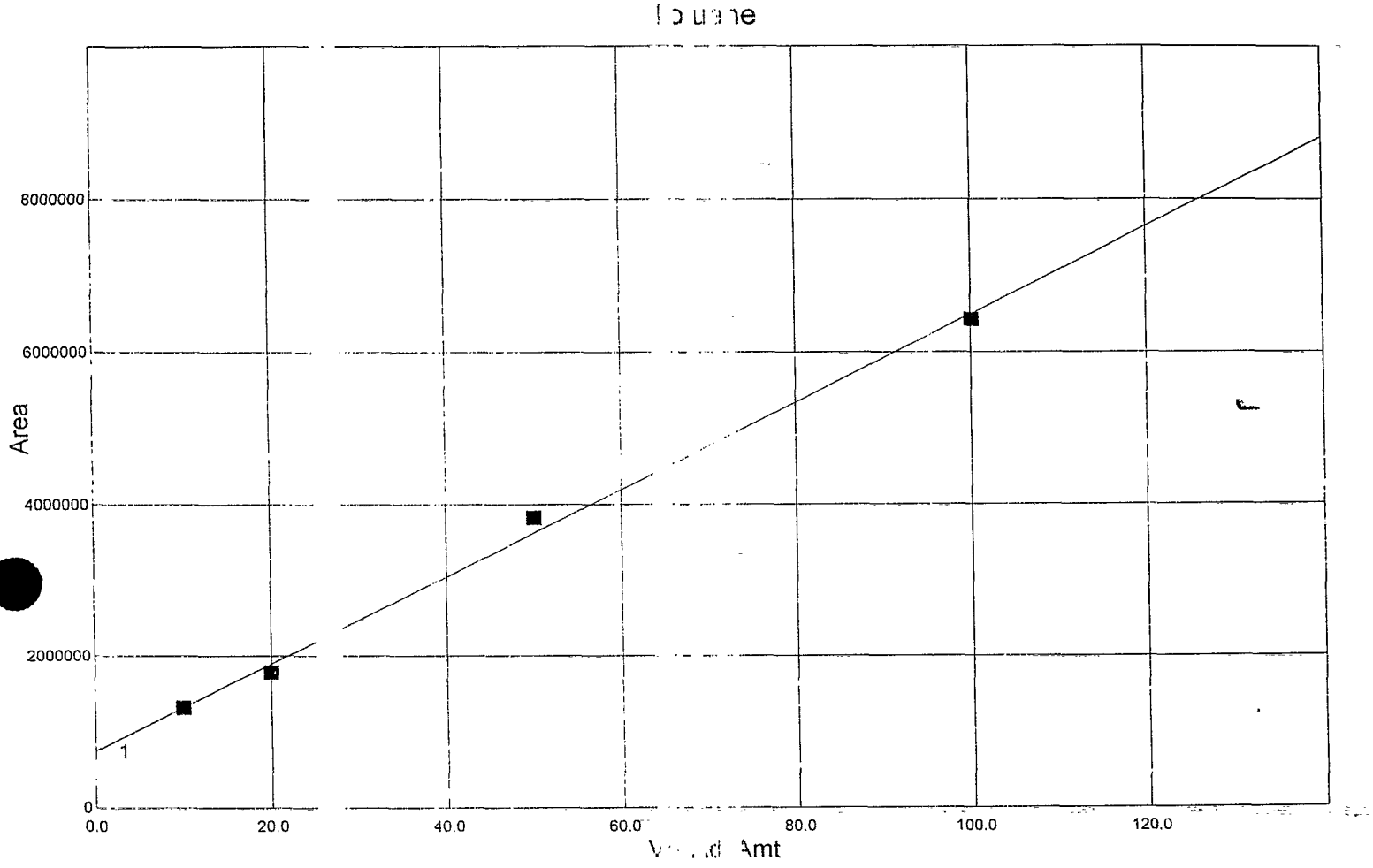


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].769242	-1.769242	-15.033	[illegible]4844.000	704079.258	100764.742	14.312
2	20.000000	1[illegible].434578	1.565422	8.492	[illegible]4459.000	1273615.466	-89156.466	-7.000
3	50.000000	5[illegible].044693	-4.044693	-7.484	[illegible]12584.000	2982224.092	230359.908	7.724
4	100.000000	9[illegible].113814	1.886186	1.922	[illegible]22480.000	5829905.135	-107425.135	-1.843

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.996421
Calibration Curve = (750593.551020) + (57549.13[illegible]) X

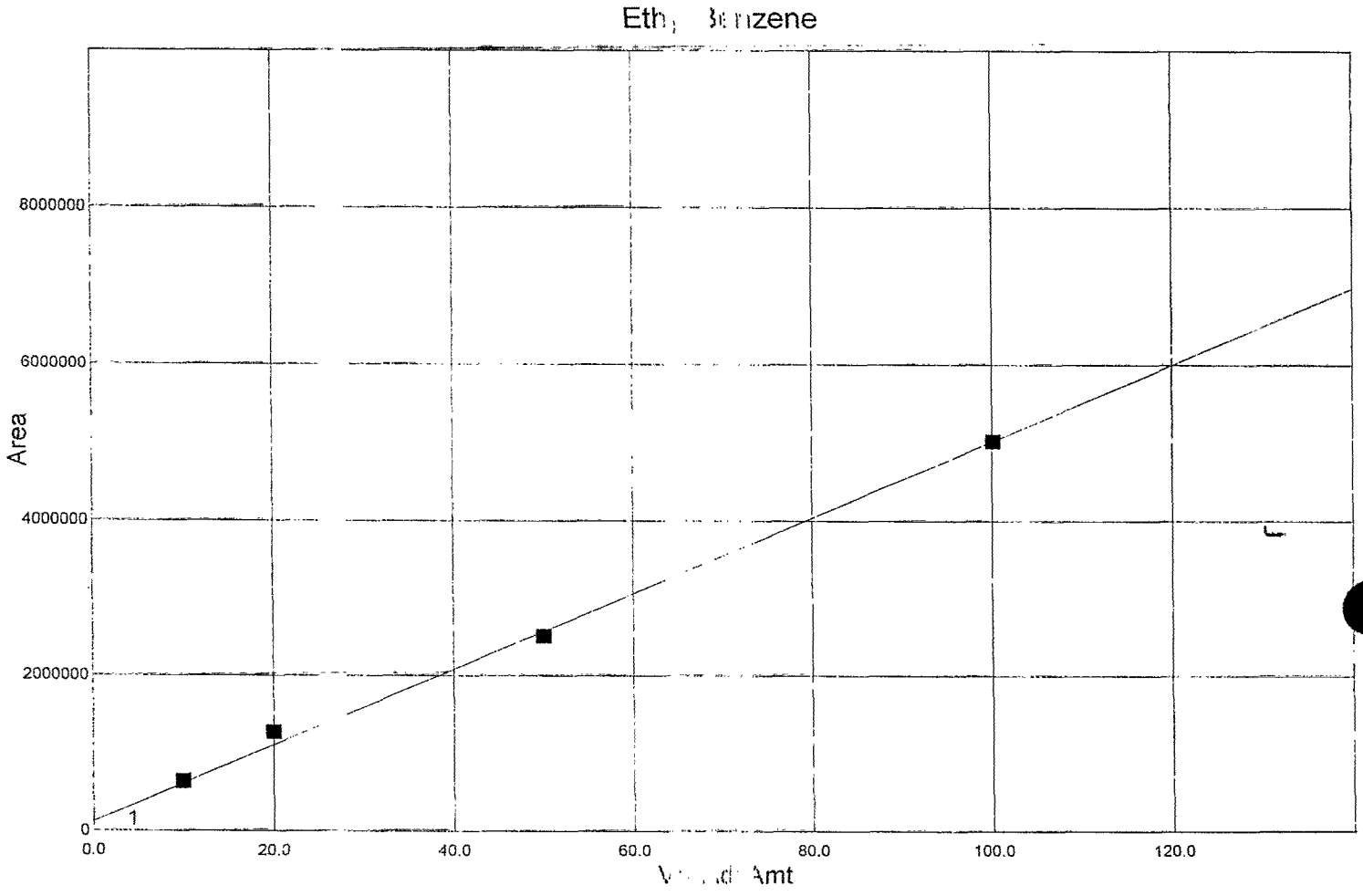


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]21008	0.073992	0.796	[illegible]1539.000	1326084.929	-4545.929	-0.343
2	20.000000	1[illegible]949677	2.050323	11.423	[illegible]3582.000	1901576.306	-117994.306	-6.205
3	50.000000	5[illegible]22702	-3.422702	-6.407	[illegible]5024.000	3628050.439	196973.561	5.[illegible]29
4	100.000000	9[illegible]06613	1.293387	1.310	[illegible]1074.000	6505507.327	-74433.327	-1.144

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order - Inc. Origin
Weighting Facto = 1.0 (No Weighting) r = 1.997039
Calibration Cur = (123449.012270) + (49023.60[illegible]

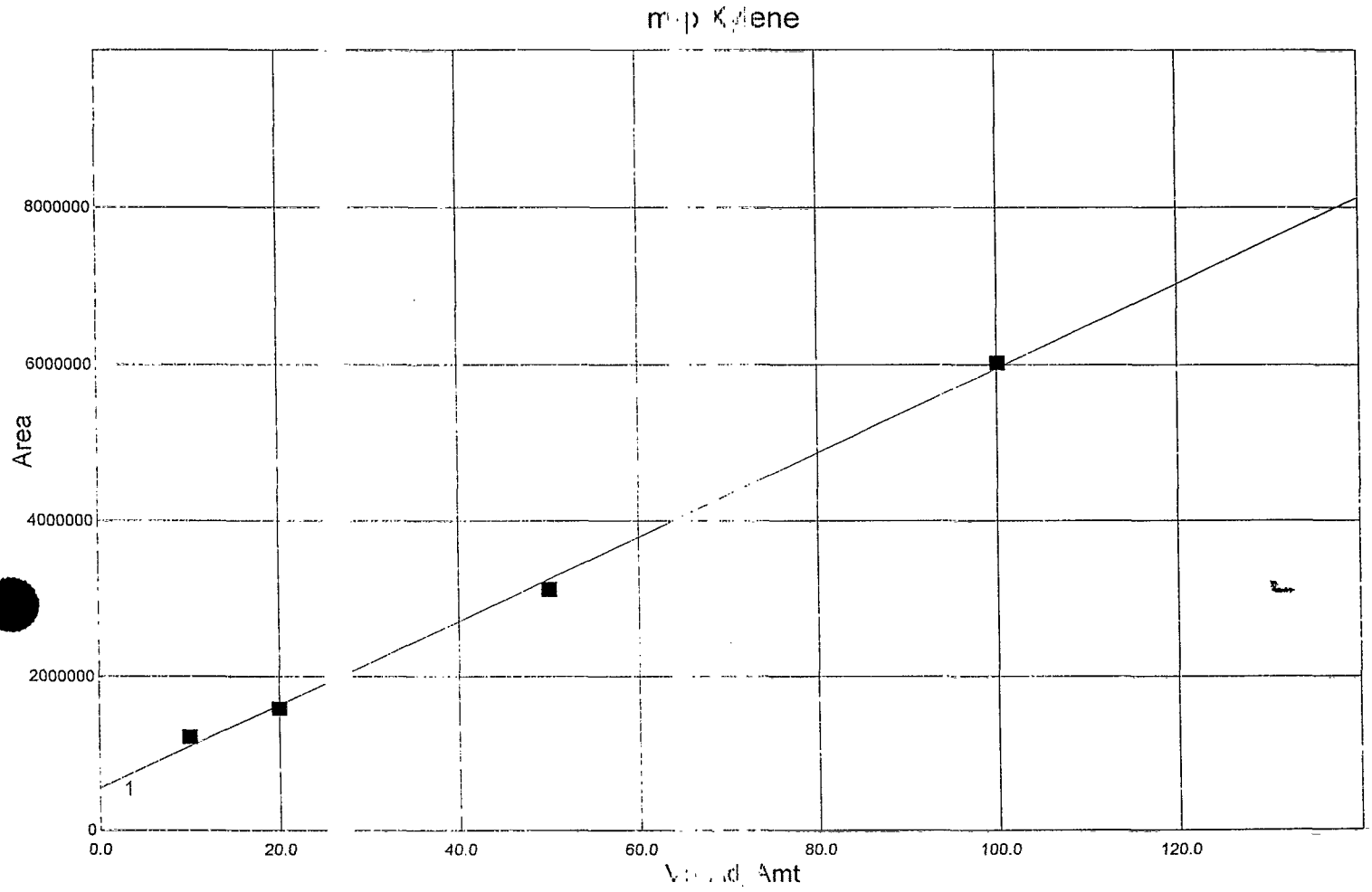


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible]26276	-0.526276	-5.030	[illegible]9485.000	613685.064	25799.936	4.204
2	20.000000	2[illegible]40654	-3.340654	-14.313	[illegible]7692.000	1103921.117	163770.883	14.835
3	50.000000	4[illegible]4396	1.258633	2.577	2[illegible]13054.000	2574629.273	-61575.273	-2.392
4	100.000000	9[illegible]07258	0.092742	0.093	5[illegible]1263.000	5025809.534	-4546.534	-0.090

Fit Analysis Output for Method File: "C:\GC\GC2B\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 0.997343
Calibration Cur = (552212.183673) + (54091.44[illegible]

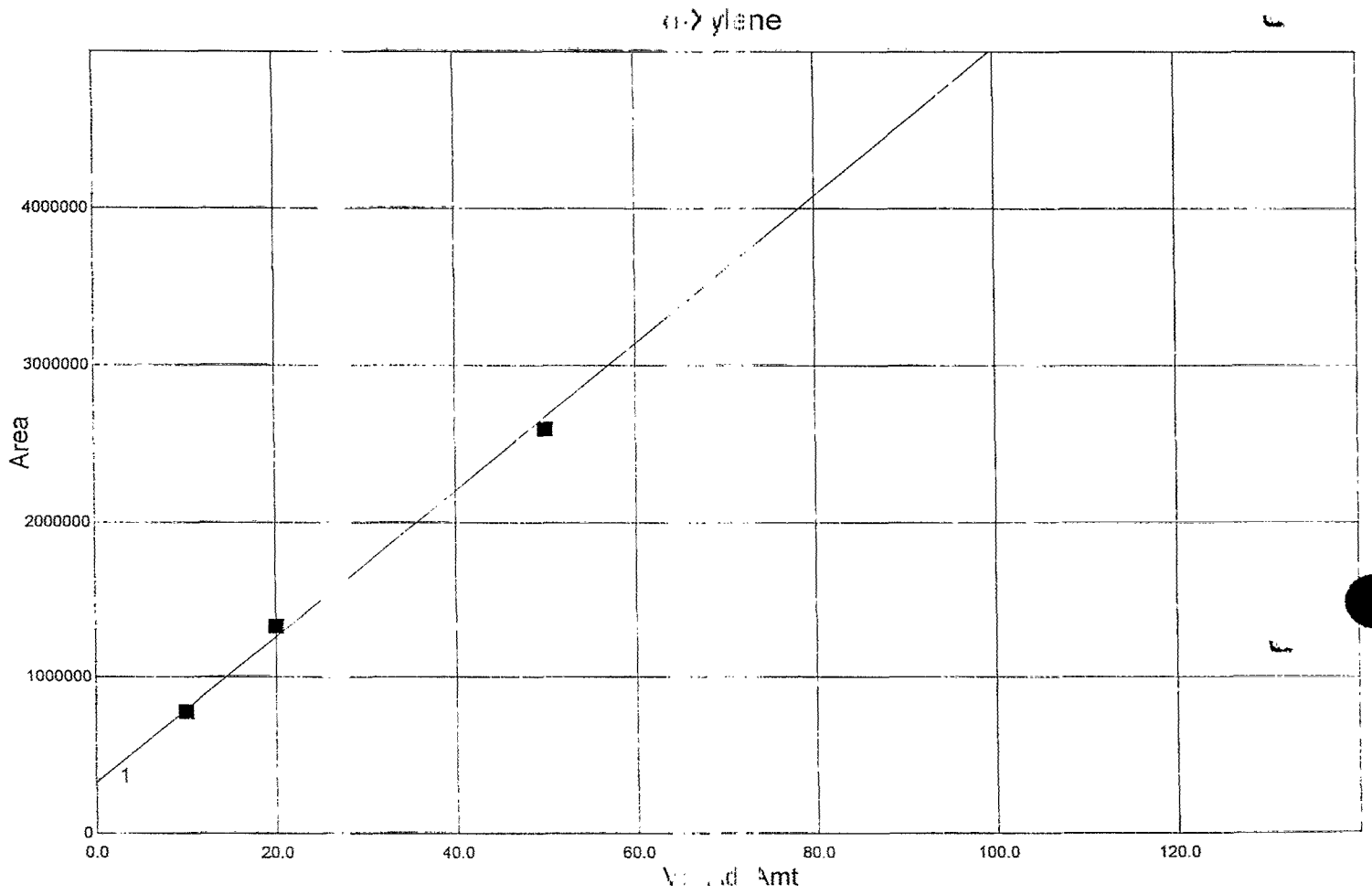


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].78003	-2.173003	-17.885	1[illegible]10938.000	1093126.643	117811.357	10.777
2	20.000000	1[illegible].087137	0.912863	4.783	1[illegible]4663.000	1634041.102	-49378.102	-3.022
3	50.000000	4[illegible].540175	2.459825	5.174	3[illegible]3729.000	3256784.480	-133055.480	-4.085
4	100.000000	10[illegible].194685	-1.194685	-1.181	6[illegible]5979.000	5961356.776	64622.224	1.084

Fit Analysis Output for Method File: "C:\GC4\GC2B\GC2B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.998900
Calibration Curve = (324351.071429) + (47002.39[illegible] X)

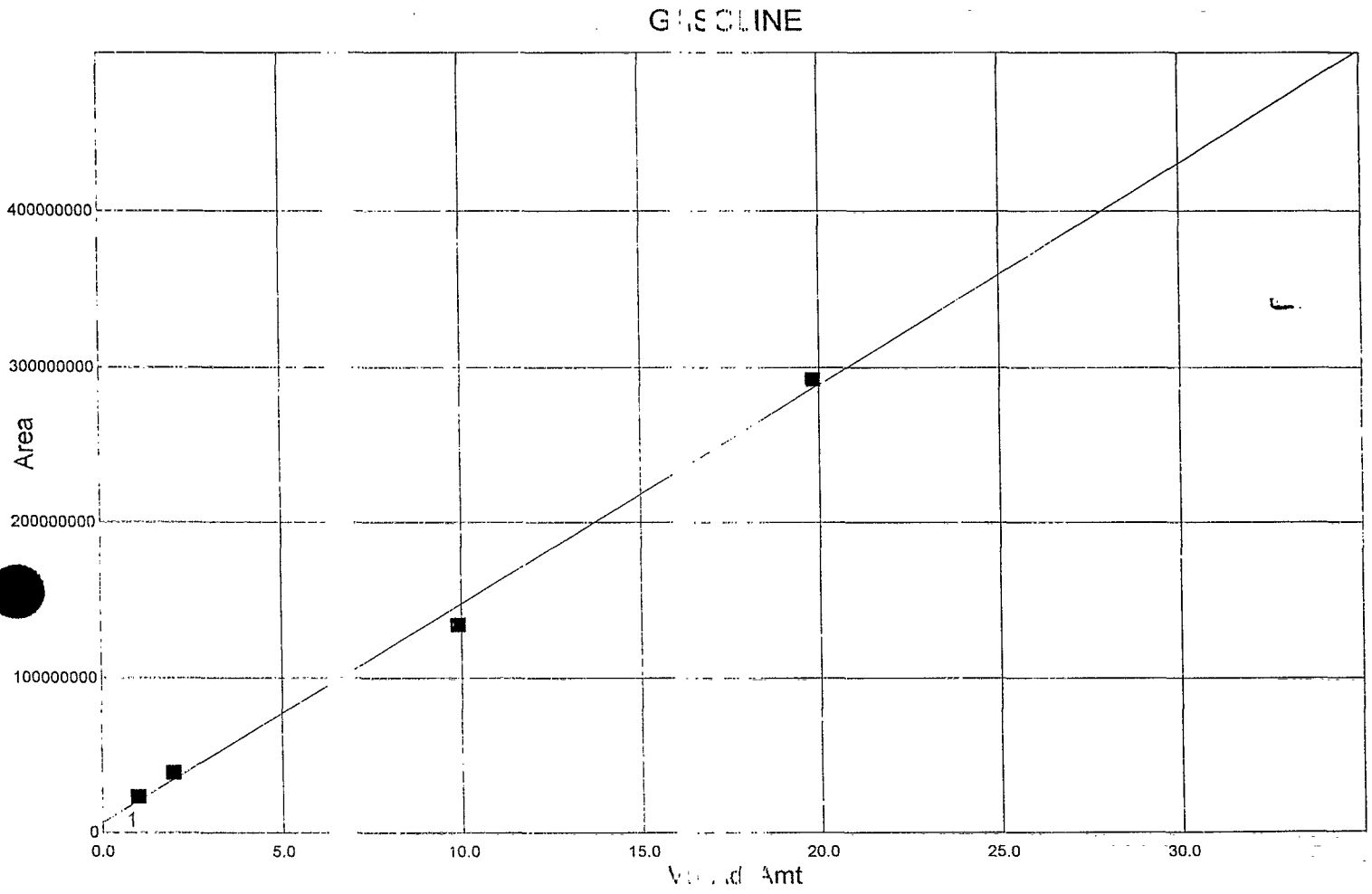


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]65996	0.334004	3.455	[illegible]8676.000	794375.000	-15699.000	-1.976
2	20.000000	2[illegible]35205	-1.435205	-6.696	[illegible]1857.000	1264398.929	67458.071	5.335
3	50.000000	4[illegible]04880	1.695120	3.509	[illegible]4796.000	2674470.714	-79674.714	-2.979
4	100.000000	10[illegible]93920	-0.593920	-0.590	[illegible]2506.000	5024590.357	27915.643	0.556

Fit Analysis Output For Method File: "C \ C4\GC2B\GC2B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:05 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) = .995350
Calibration Cur = (6818405.118153) + (1412713 [illegible]X

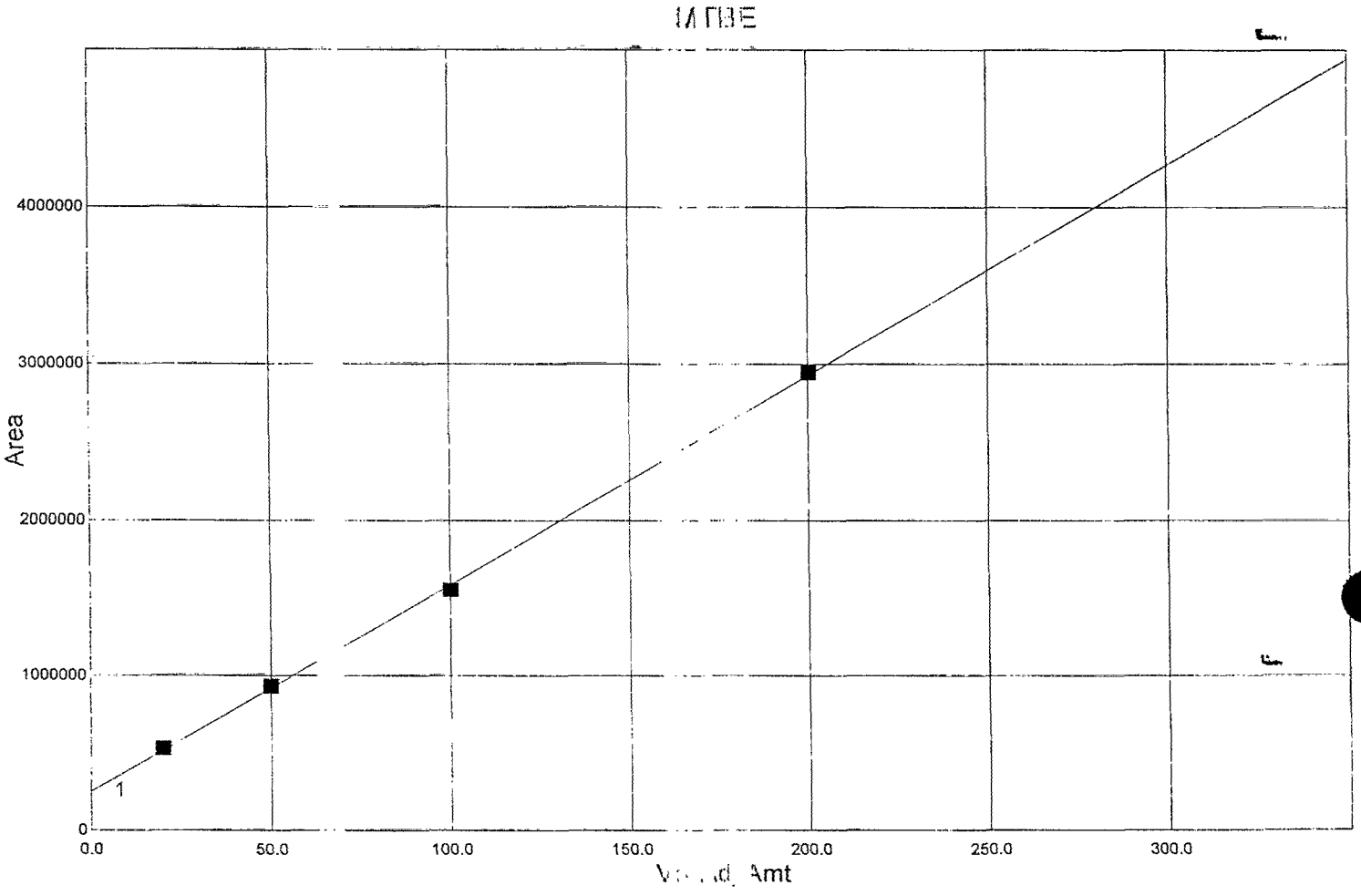


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible].72489	-0.182489	-15.564	[illegible]2316.000	20804265.437	2578050.563	12.392
2	1.980000	[illegible]78333	-0.298333	-13.094	[illegible]4722.000	34790125.756	4214596.244	12.114
4	9.900000	[illegible]16270	0.883730	9.802	[illegible]439.000	146677008.308	-12484569.308	-8.512
5	19.800000	2[illegible].402907	-0.402907	-1.994	[illegible]7534.000	286535611.498	5691922.502	1.986

Fit Analysis Output For Method File: "C \ C4\GC1\GC1B.MTH"
Component Name: "MTH"
Date: 2/18/98 Time: 10:03 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 0.999455
Calibration Cur = (253326.483266) + (13393.63 x)

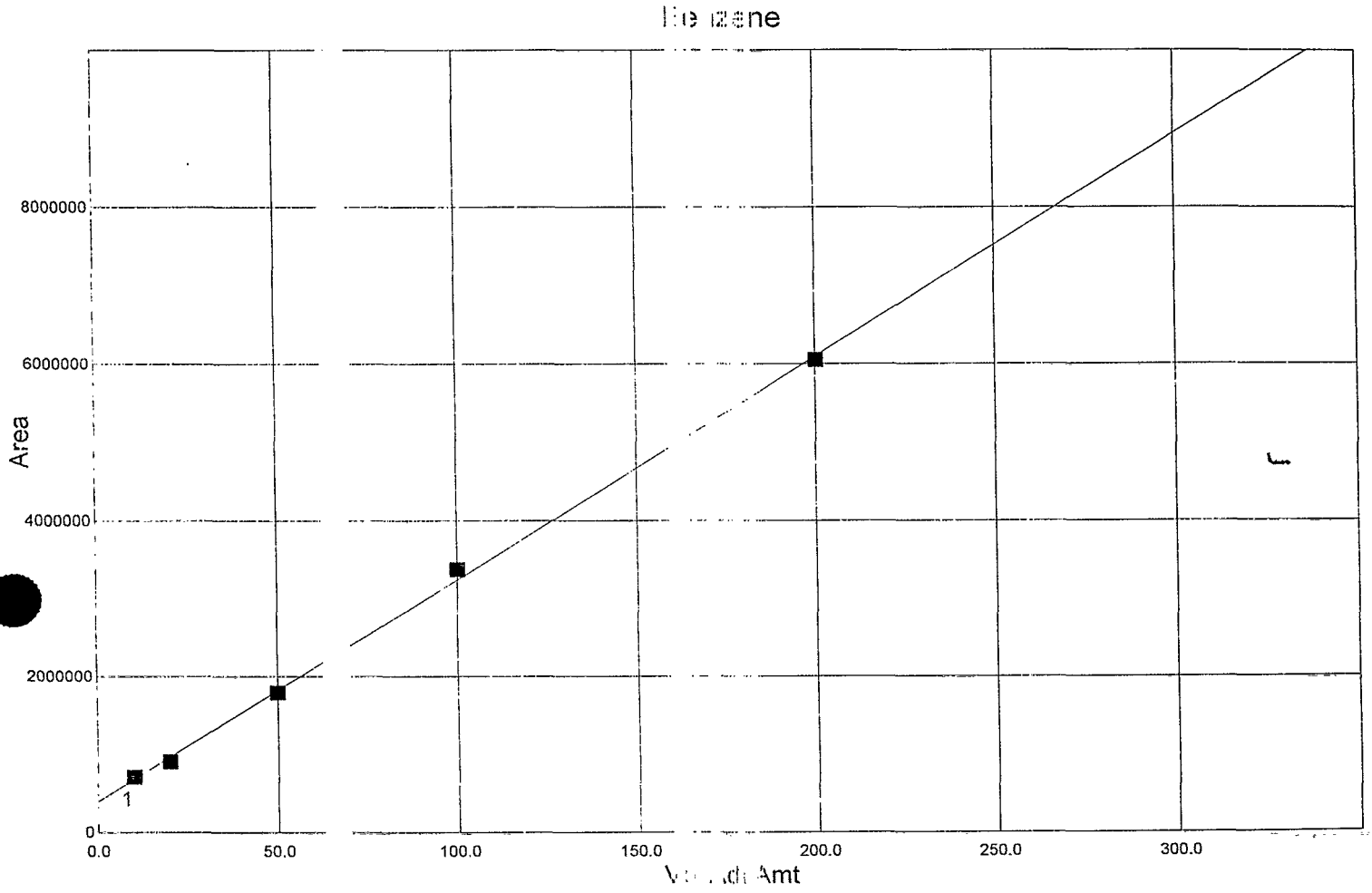


Level Name	Observed X-Value	Calculated Y-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
2	20.000000	27.848594	-0.848594	-4.070	532565.000	521199.244	11365.756	2.181
3	50.000000	51.820286	-0.820286	-1.614	933995.000	923008.384	10986.616	1.190
4	100.000000	97.242102	2.757898	2.836	1555752.000	1592690.285	-36938.285	-2.319
5	200.000000	201.089018	-1.089018	-0.542	2947640.000	2932054.087	14585.913	0.497

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 2/18/98 Time: 10:03 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.998634
Calibration Curve = (402259.966833) + (28490.05[illegible]) X

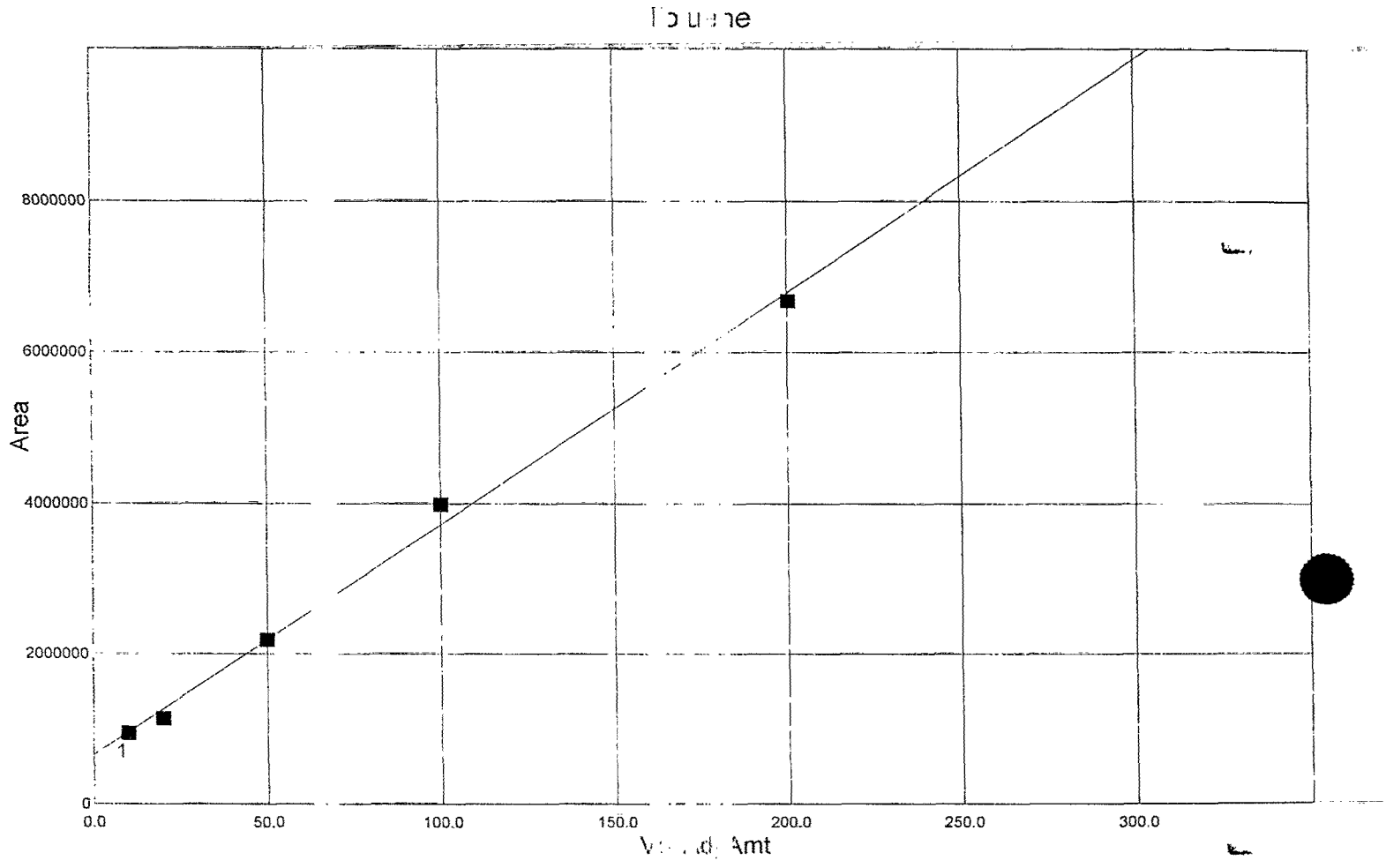


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].793909	-0.793909	-7.355	[illegible]9779.000	687160.498	22618.502	3.292
2	20.000000	1[illegible].621695	2.378305	13.496	[illegible]4303.000	972061.028	-67758.028	-6.971
3	50.000000	4[illegible].736485	1.263515	2.593	[illegible]0765.000	1826762.620	-35997.620	-1.971
4	100.000000	10[illegible].667795	-4.667795	-4.460	[illegible]4251.000	3251265.274	132985.726	4.090
5	200.000000	19[illegible].80116	1.819884	0.918	[illegible]8422.000	6100270.580	-51848.580	-0.850

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 2/18/98 Time: 10:03 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.995538
Calibration Cur = (655438.449420) + (30720.03[illegible]

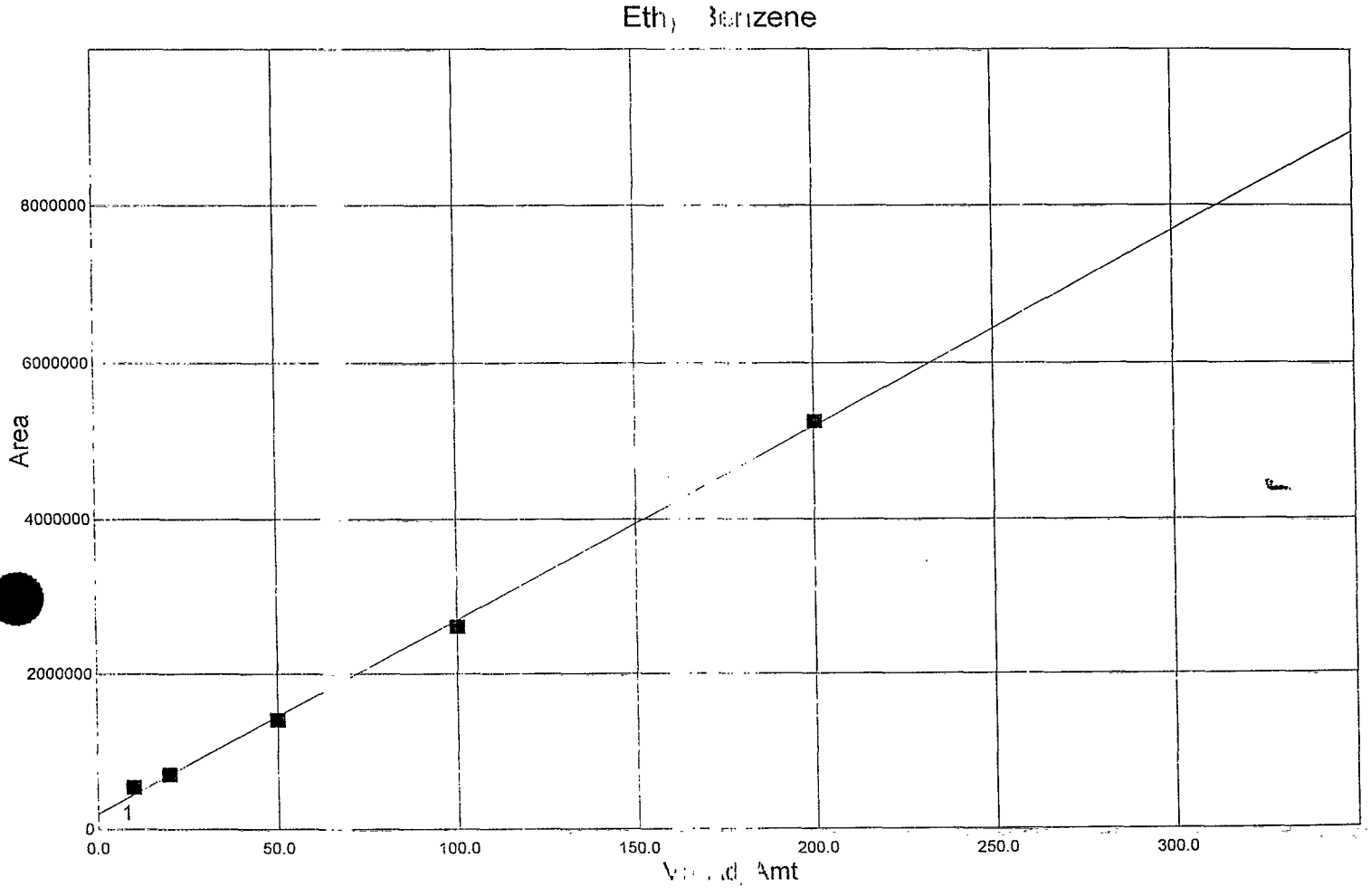


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	[illegible]	0.533357	5.634	[illegible]6254.000	962638.759	-16384.759	-1.702
2	20.000000	1[illegible]	4.223663	26.772	[illegible]5088.000	1269839.068	-129751.068	-10.218
3	50.000000	4[illegible]	0.028483	0.057	[illegible]0565.000	2191439.996	-874.996	-0.040
4	100.000000	10[illegible]	-8.658698	-7.969	[illegible]3437.000	3727441.542	265995.458	7.136
5	200.000000	19[illegible]	3.873194	1.975	[illegible]2460.000	6799444.635	-118984.635	-1.750

Fit Analysis Output for Method File: "C:\GC4\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 2/18/98 Time: 10:03 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .998618
Calibration Cur = (207055.325041) + (24965.12 X)

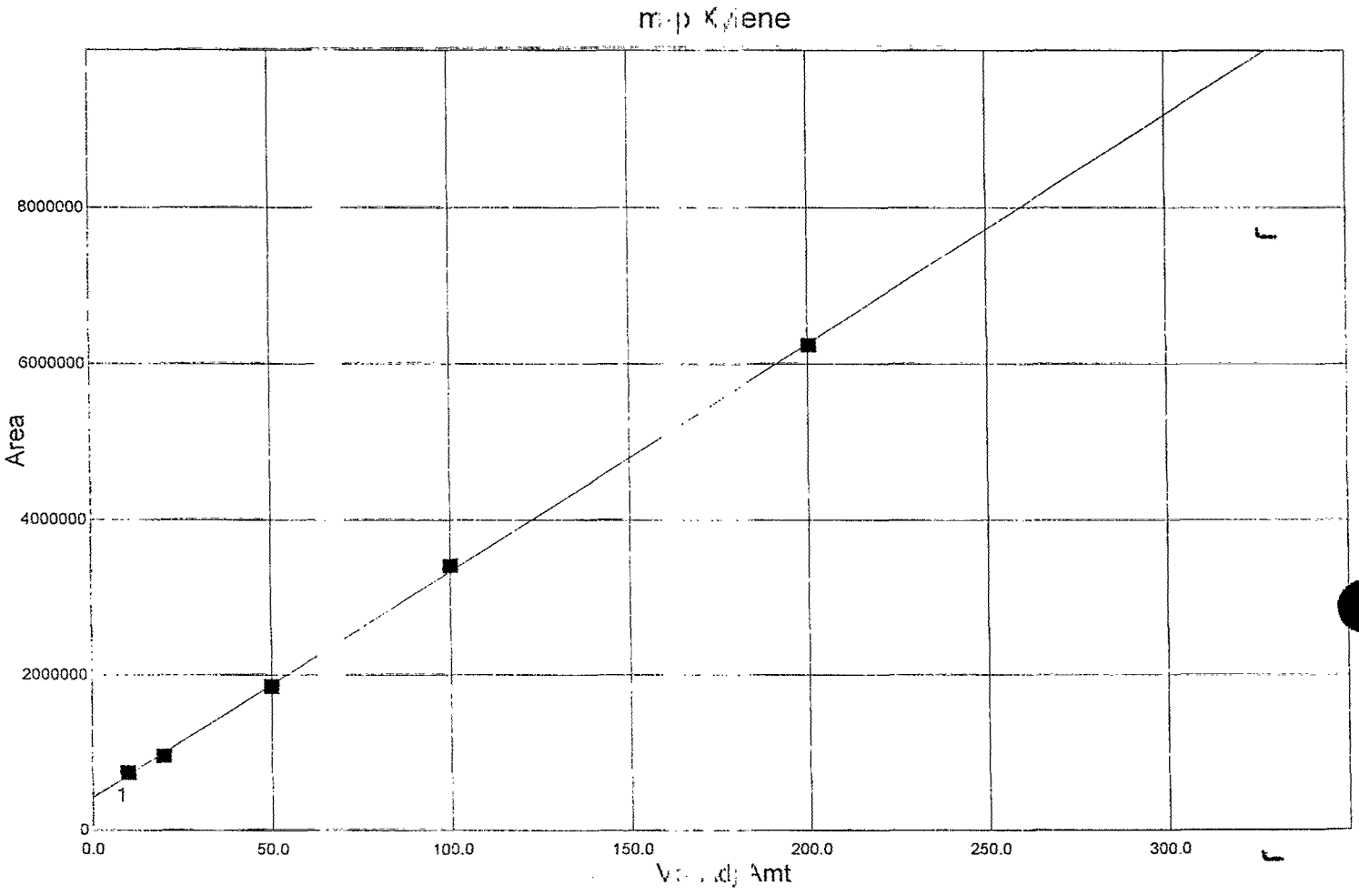


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	13.493888	-3.493888	-25.892	543932.000	456706.624	87225.376	19.099
2	20.000000	20.019991	-0.019991	-0.100	706857.000	706357.924	499.076	0.071
3	50.000000	47.886299	2.113701	4.414	1402543.000	1455311.822	-52768.822	-3.626
4	100.000000	96.496180	3.503820	3.631	2616095.000	2703568.318	-87473.318	-3.235
5	200.000000	203.103642	-2.103642	-1.041	5252599.000	5200081.312	52517.688	1.010

Fit Analysis Output for Method File: "C \ C4\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 2/18/98 Time: 10:04 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = .999541
Calibration Cur = (422455.767828) + (29221.77 [illegible]

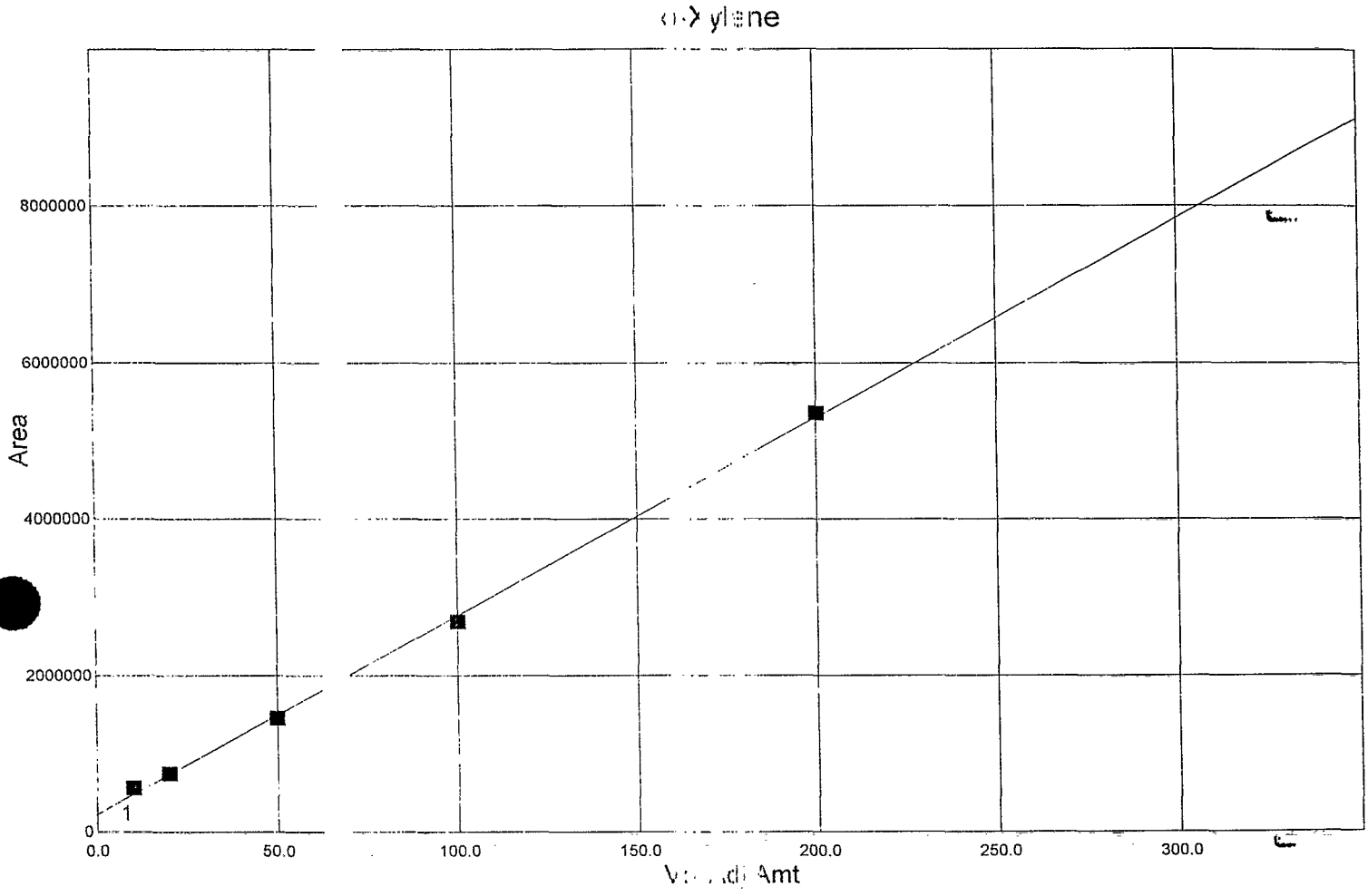


Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].976550	-0.976550	-8.897	[illegible]3210.000	714673.483	28536.517	3.993
2	20.000000	1[illegible].393759	1.606241	8.733	[illegible]9954.000	1006891.197	-46937.197	-4.662
3	50.000000	4[illegible].069791	0.930209	1.896	[illegible]6362.000	1883544.342	-27182.342	-1.443
4	100.000000	10[illegible].431101	-2.431101	-2.373	[illegible]15674.000	3344632.915	71041.085	2.124
5	200.000000	19[illegible].28798	[illegible].871202	0.438	[illegible]352.000	6266810.063	-25458.063	-0.406

Fit Analysis Output For Method File: "C \ C4\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 2/18/98 Time: 10:04 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Facto = 1.0 (No Weighting) r = 1.998867
Calibration Cur = (237558.446103) + (25380.63[illegible]

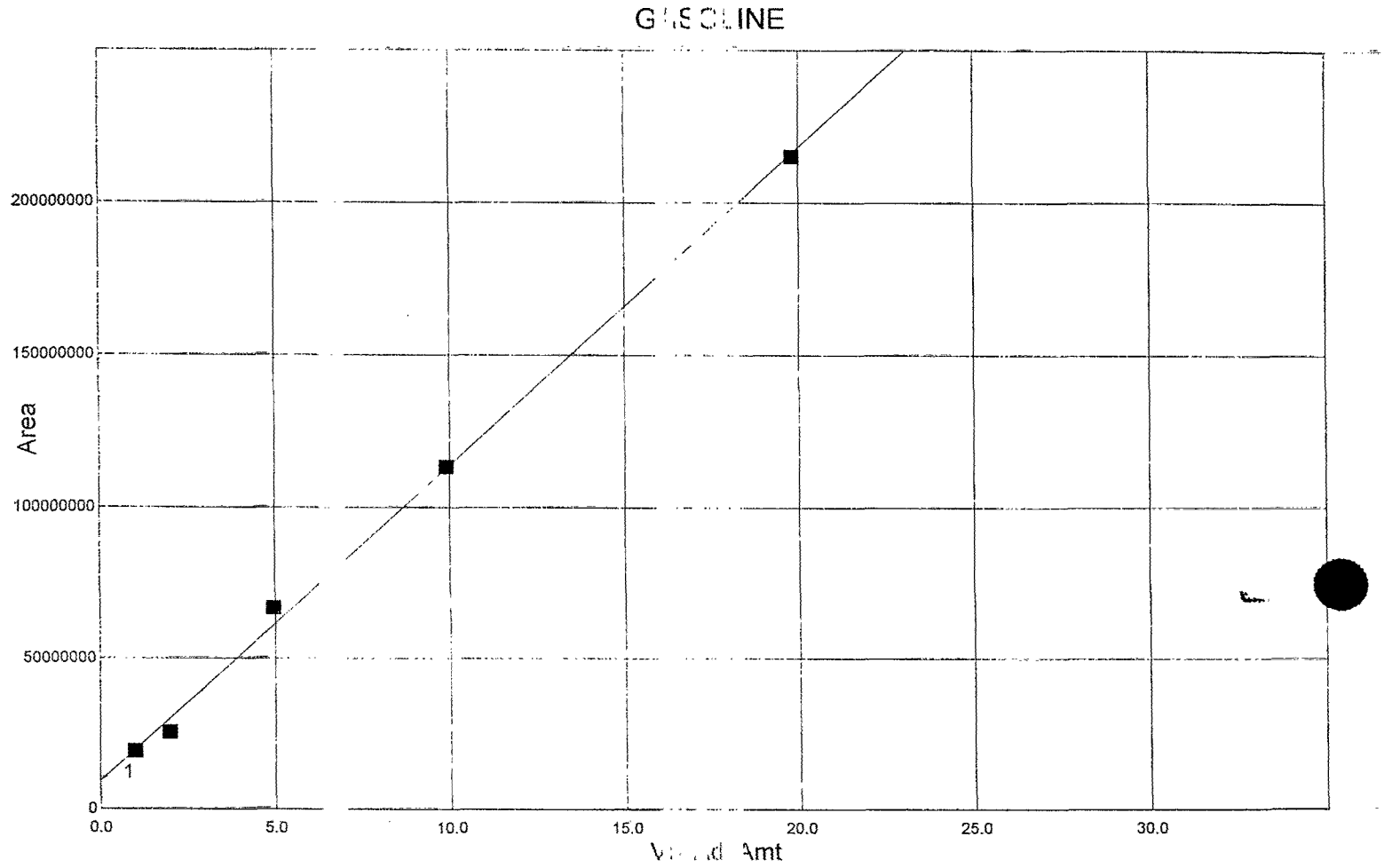


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	1[illegible].009704	-3.009704	-23.134	[illegible]7753.000	491364.808	76388.192	15.546
2	20.000000	2[illegible].222959	-0.222959	-1.103	[illegible]0830.000	745171.171	5658.829	0.759
3	50.000000	4[illegible].25805	1.874195	3.894	[illegible]9022.000	1506590.258	-47568.258	-3.157
4	100.000000	9[illegible].691530	3.308470	3.422	[illegible]1651.000	2775622.070	-83971.070	-3.025
5	200.000000	20[illegible].950003	-1.950003	-0.966	[illegible]3178.000	5313685.693	49492.307	0.931

Fit Analysis Output for Method File: "C:\GC\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 2/18/98 Time: 10:04 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r = 0.997886
Calibration Curve = (9489239.723051) + (1044211.[illegible]4[illegible])X



Level Name	Observed X-Value	Calculated Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	[illegible]947440	0.042560	4.492	[illegible]12515.000	19826928.654	-444413.654	-2.241
2	1.980000	[illegible]646422	0.433578	26.037	[illegible]37149.000	30164617.585	-4527468.585	-15.009
3	4.950000	[illegible]94394	-0.544394	-9.938	[illegible]2310.000	61177684.379	5684625.621	9.292
4	9.900000	[illegible]044712	-0.044712	-0.450	[illegible]3020.000	112866129.035	466890.965	0.414
5	19.800000	1[illegible]587031	0.112969	0.574	[illegible]3384.000	216243018.347	-1179634.347	-0.546

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Jones Environmental

Address: P.O. Box 5387, Fullerton CA 92635

Telephone/FAX: (714) 449-9937 / (714) 449-9685

ELAP Certification No. 1779A Expiration Date:12/31/99

Authorized Signature
Name, Title (print) Steve Jones, Ph.D. , Lab Director

Signature, Date 3/30/98

Client Name: ALTON GEOSCIENCE

Project No.: 76 STATION #4357, LOS ANGELES

Date(s) Sampled: 02/06/98 To 02/06/98

Date(s) received: 02/06/98 To 02/06/98

Date(s) reported: 02/08/98

Chain of custody received: Yes X No

Comments: SAMPLES WERE RECEIVED BY THE MOBILE LAB IN THE FIELD AT AMBIENT TEMPERATURE AND IN SEALED CONDITION.

(RWQCB LabForm;Ver12/94)

Project No: B-1932

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-6-98	2-6-98	2-6-98	2-6-98	2-6-98
		DATE EXTRACTED	2-6-98	2-6-98	2-6-98	2-6-98	2-6-98
		LAB SAMPLE I.D.	MB	B1932-1	B1932-2	B1932-3	B1932-4
		CLIENT SAMPLE I.D.	--	B6-94.0	B6-99.25	B6-103.75	B6-109.25
		EXTRACTION SOLVENT	---	---	---	---	---
		EXTRACTION METHOD	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.002	ND	ND	ND	ND	ND
Ethylbenzene	0.003	0.002	ND	ND	ND	ND	ND
Total Xylenes	0.003	0.002	ND	ND	ND	ND	ND
Gasoline	0.050	0.50	ND	ND	ND	ND	ND
MTBE	0.001	0.005	ND	ND	ND	ND	ND
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125		99	119	99	120
Trifluorotoluene (TFT)	100 ng	65-125		99	103	97	108

(RWQCB LabForm10A;Ver12/9

Project No: B-1932

ANALYTICAL RESULT FOR ORGANICS

METHOD: EPA 8020/8015 as gasoline

REPORTING UNIT:mg/Kg

		DATE ANALYZED	2-6-98				
		DATE EXTRACTED	2-6-98				
		LAB SAMPLE I.D.	B1932-5				
		CLIENT SAMPLE I.D.	B6-114.0				
		EXTRACTION SOLVENT	---				
		EXTRACTION METHOD	EPA 5030				
		DILUTION FACTOR	1				
COMPOUND	MDL	EQL					
Benzene	0.002	0.002	ND				
Toluene	0.002	0.002	ND				
thylbenzene	0.003	0.002	ND				
Total Xylenes	0.003	0.002	ND				
Gasoline	0.050	0.50	ND				
MTBE	0.001	0.005	ND				
Surrogate	Conc	ACP %	% RC	% RC	% RC	% RC	% RC
Bromofluorobenzene(BFB)	100 ng	65-125	100				
Trifluorotoluene (TFT)	100 ng	65-125	100				

(RWQCB LabForm10A;Ver12/94)

Project No: B-1932

QA/QC REPORT

I.Calibration Standard

(A).Initial Calibration

ATE PERFORMED:09/28/97	NALYTICAL METHOD: EPA8020/MOD8015 (GASOLINE)
NSTRUMENT I.D.: GC1 AND GC2	
STANDARD SUPPLY SOURCE: SUPELCO (LOT #LA59451)	OT NUMBER:092897-8
DATE OF SOURCE: 09/28/97	

COMPOUND	DETECTOR	RT	MASS/CONC UNIT:	AREA	RF	R^2	
Benzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Toluene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Ethylbenzene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
m,p-Xylenes	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
o-Xylene	PID		1st conc; 10ng	SEE ATTACHED GRAPH			
			2nd conc; 20ng				
			3rd conc; 50ng				
			4th conc; 100ng				
			5th conc; 200ng				
Gasoline	PID		1st conc; 1.11ng	SEE ATTACHED GRAPH			
			2nd conc; 2.22ng				
			3rd conc; 5.55ng				
			4th conc; 11.1ng				
			5th conc; 22.2ng				
MTBE	PID			SEE ATTACHED GRAPH			

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	RECOVERY UNIT: ng/ug(Gas)	AREA	RF	%DIFF	ACP RANGE %DIFF
Benzene	PID	5.10	100 ng	6146320	59202	+3.8	+/-20%
Toluene	PID	7.98	100 ng	5598139	59223	-5.5	+/-20%
Ethylbenzene	PID	10.75	100 ng	4926608	53325	-7.6	+/-20%
Total Xylenes	PID	10.98/11.69	100 ng	5833222/4680378	60748/52602	-4.0/-11	+/-20%
Gasoline	PID	NA	9.90 ng				+/-20%
MTBE	PID		100 ng				+/-20%

Project No: B-1932

QA/QC REPORT (Continued)

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ATE PERFORMED:02/05/98	NALYTICAL METHOD: EPA 8020 AND MOD-8015 GASOLINE
ATCH #:092897-8	
AB SAMPLE I.D.:B6-114.0	NIT:mg/Kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Toluene (GC1)	ND	200	188.8	94	200	191.6	96	1.5	65-125	20%
o-Xylene (GC1)	ND	155	157.6	98	155	154.8	100	2.1	65-125	20%
										20%
										20%
Gasoline (GC1)	ND	9.90	10.42	105	9.90	10.71	108	2.7	65-125	20%
										20%

III. Laboratory Quality Control Check Sample (LCS)

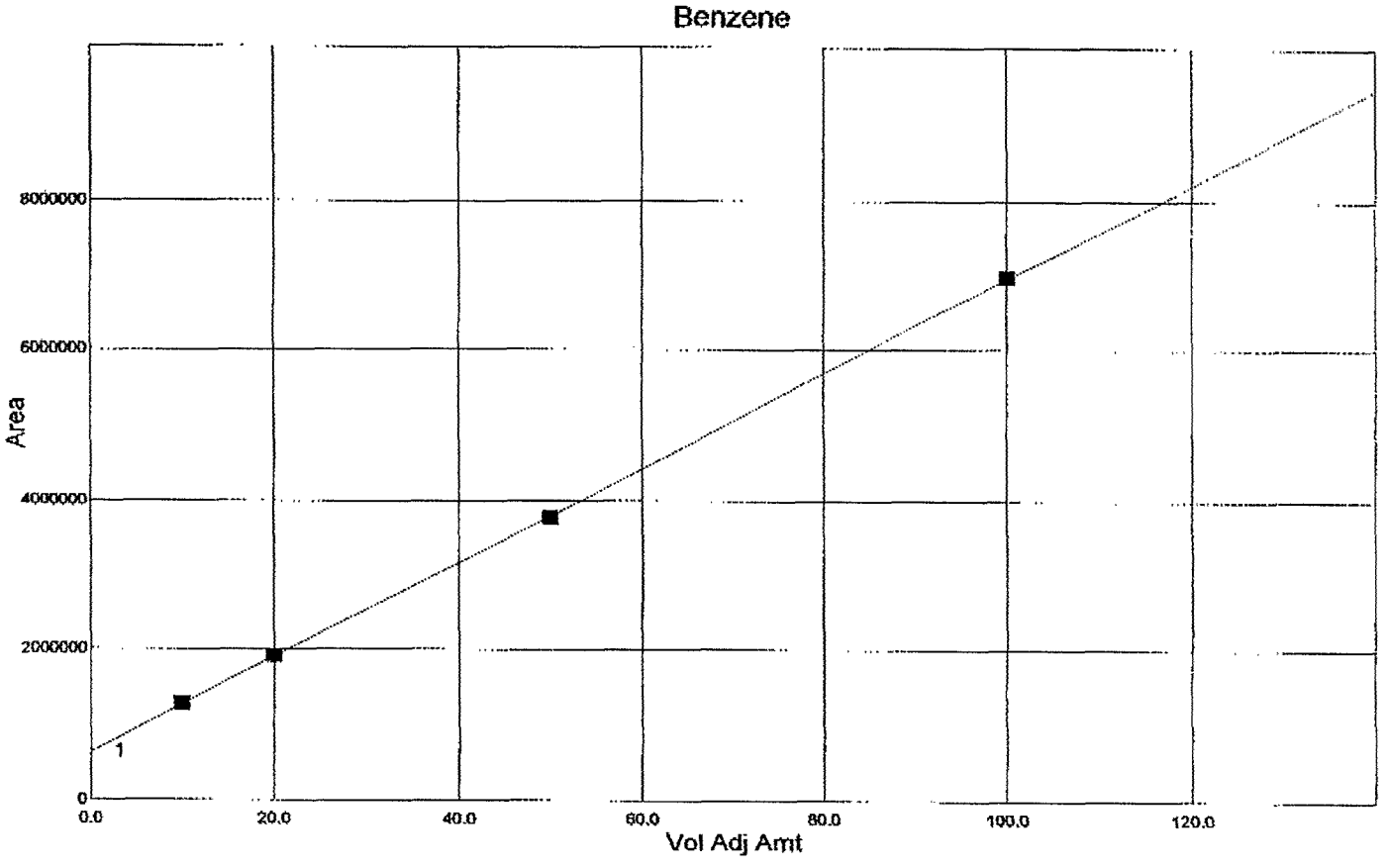
ATE PERFORMED:	NALYTICAL METHOD: EPA 8020 AND MOD 8015 GASOLINE
LY SOURCE: SUPELCO/UNOCAL	AB LCS I.D.:
NUMBER:	
ATE OF SOURCE	NIT: mg/Kg

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
(GC1)	--	--	--	--
Benzene	100 ng			80-120
Toluene	100 ng			80-120
Ethylbenzene	100 ng			80-120
m,p-Xylene	200 ng			80-120
o-Xylene	100 ng			80-120
Gasoline (GC1)	9.90 ng			80-120
				80-120
MTBE (GC1)	100 ng			80-120

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Benzene"
Date: 3/15/98 Time: 11:42 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor - 1.0 (No Weighting) r^2 - 0.999946
Calibration Curve = (653783.489796) + (62938.522449)X

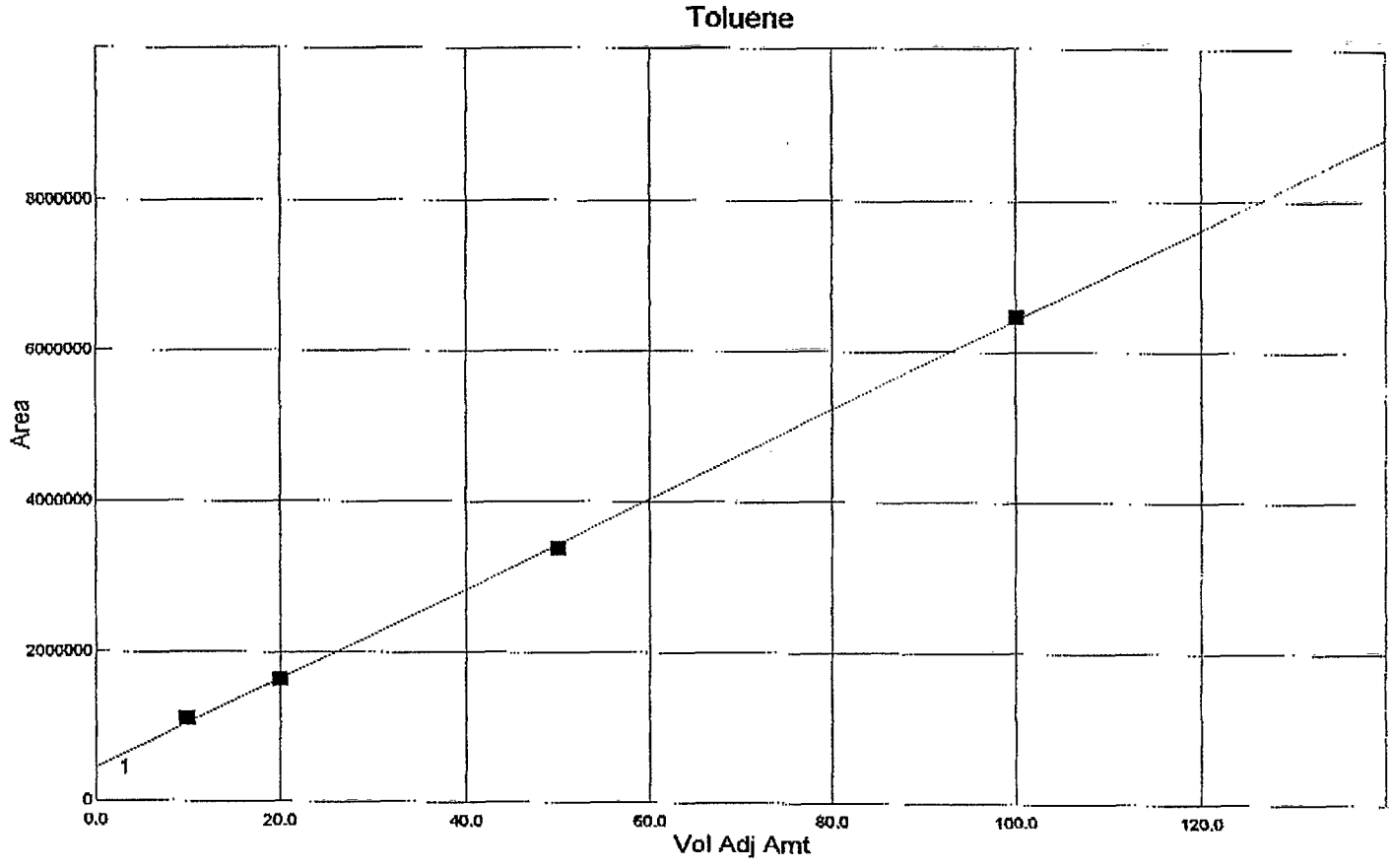


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.155394	-0.155394	-1.530	1292949.000	1283168.714	9780.286	0.762
2	20.000000	20.101131	-0.101131	-0.503	1918919.000	1912553.939	6365.061	0.333
3	50.000000	49.558480	0.441520	0.891	3772921.000	3800709.612	-27788.612	-0.731
4	100.000000	100.184994	-0.184994	-0.185	6959279.000	6947635.735	11643.265	0.168

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Toluene"
Date: 3/15/98 Time: 11:43 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor - 1.0 (No Weighting) r^2 = 0.999592
Calibration Curve - (451460.571429) + (59808.142857)X

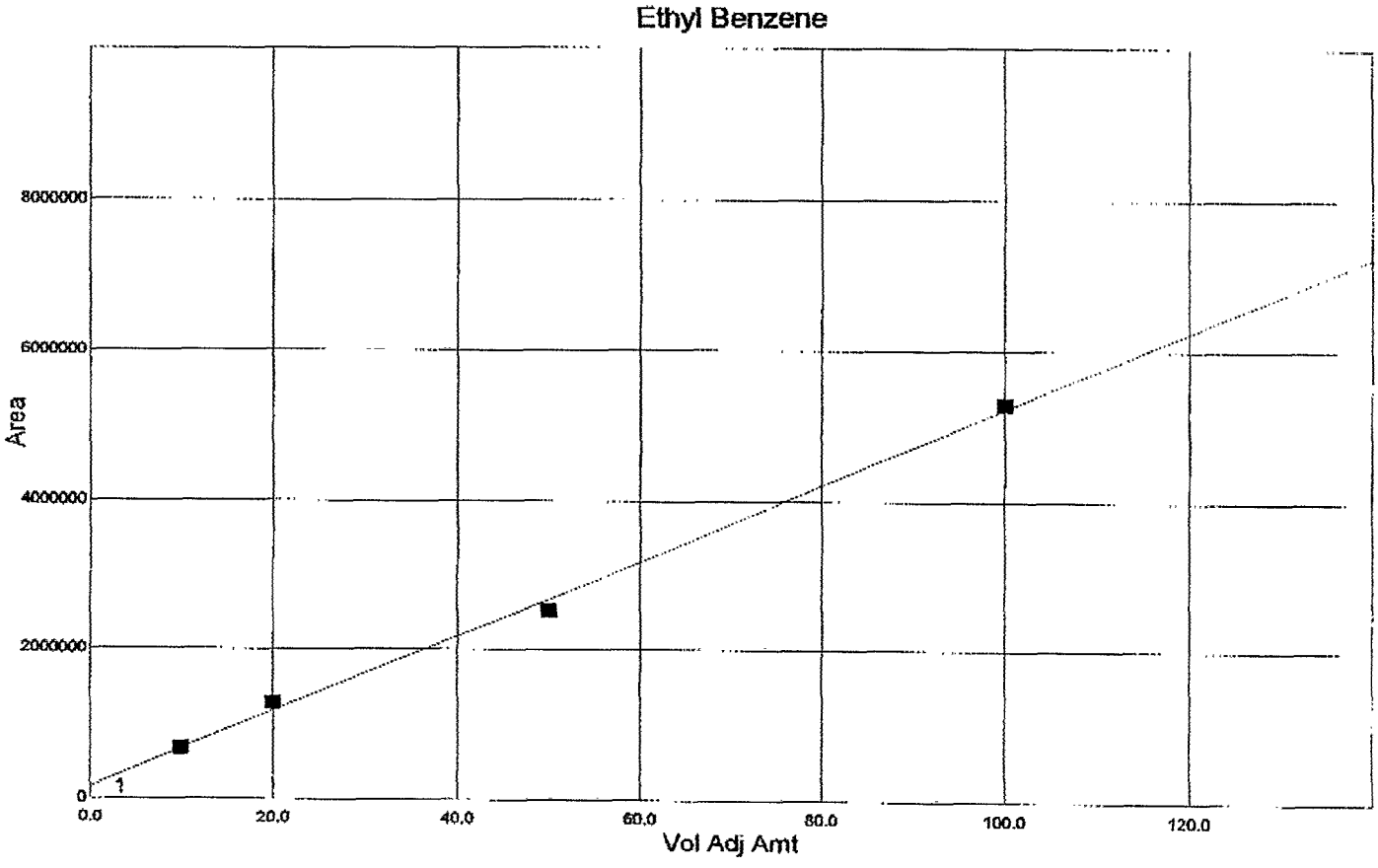


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.882221	-0.882221	-8.107	1102306.000	1049542.000	52764.000	5.027
2	20.000000	19.579599	0.420401	2.147	1622480.000	1647623.429	-25143.429	-1.526
3	50.000000	49.084644	0.915356	1.865	3387122.000	3441867.714	-54745.714	-1.591
4	100.000000	100.453536	-0.453536	-0.451	6459400.000	6432274.857	27125.143	0.422

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "Ethyl Benzene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.996983
Calibration Curve = (164567.724490) + (50664.906122)X

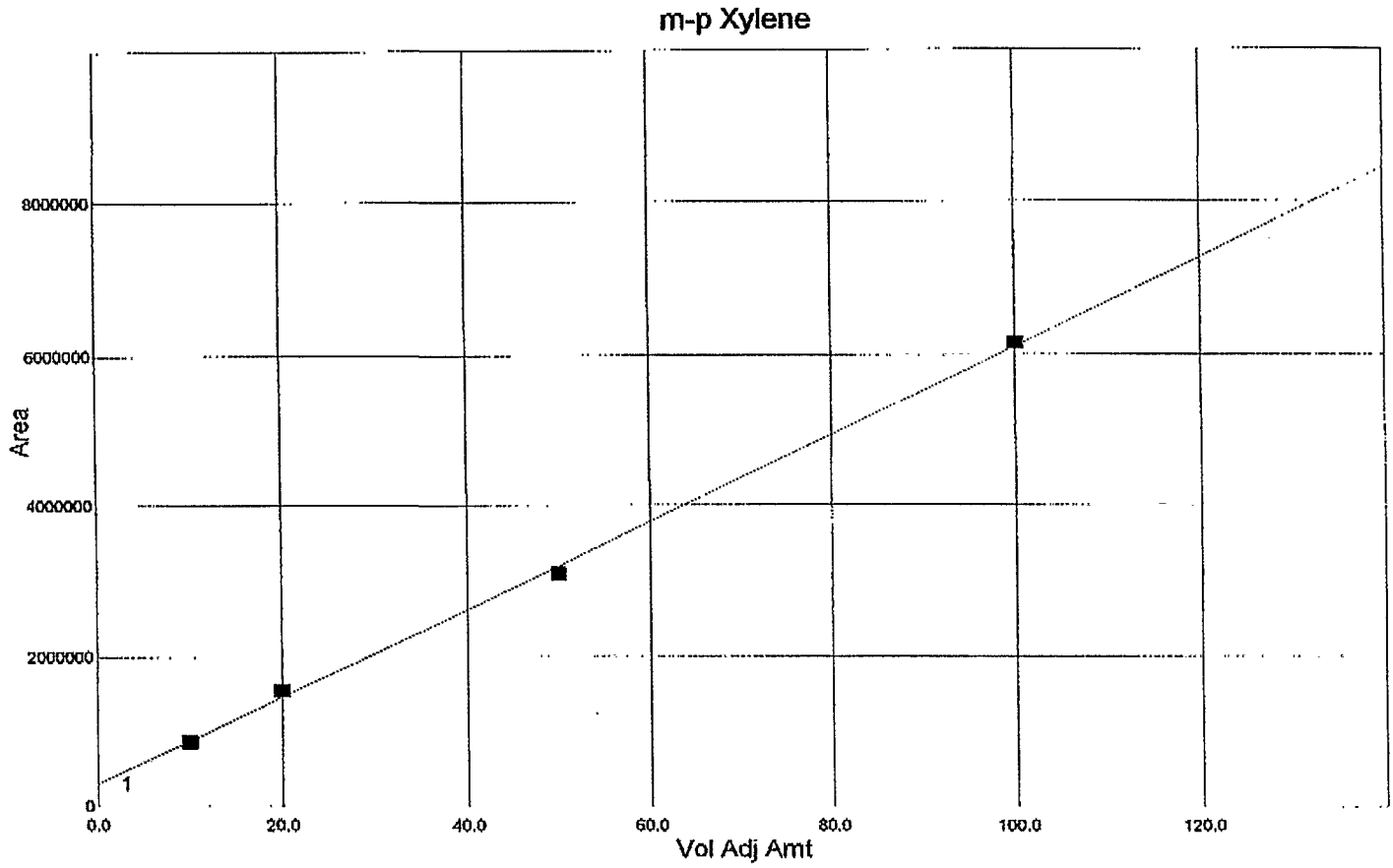


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.991122	0.008878	0.089	670767.000	671216.786	-449.786	-0.067
2	20.000000	21.952518	-1.952518	-8.894	1276790.000	1177865.847	98924.153	8.399
3	50.000000	46.891951	3.108049	6.628	2540344.000	2697813.031	-157469.031	-5.837
4	100.000000	101.164409	-1.164409	-1.151	5290053.000	5231058.337	58994.663	1.128

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "m-p Xylene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998724
Calibration Curve = (312224.020408) + (57948.855102)X

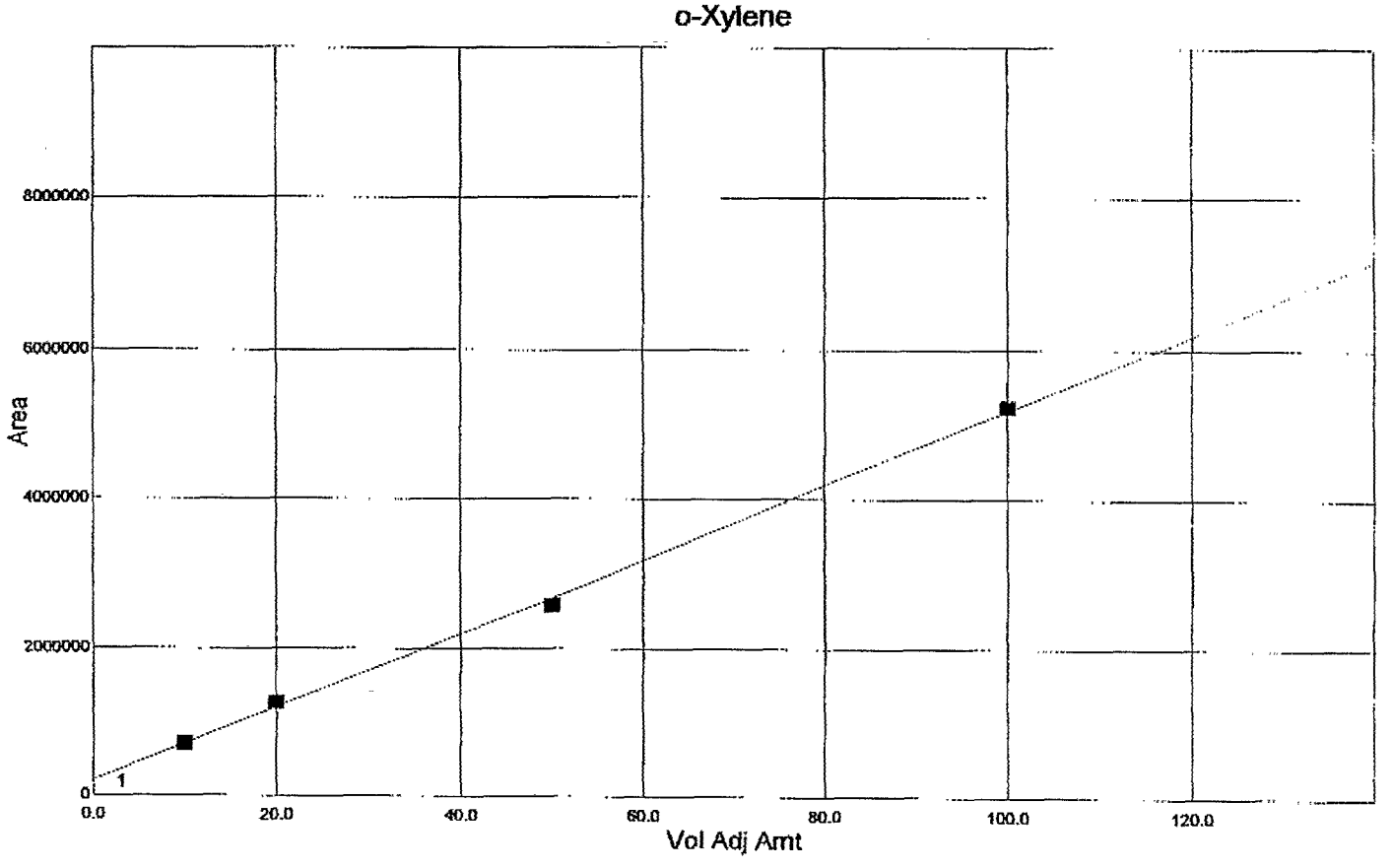


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	9.762815	0.237185	2.429	877968.000	891712.571	-13744.571	-1.541
2	20.000000	21.455540	-1.455540	-6.784	1555548.000	1471201.122	84346.878	5.733
3	50.000000	48.098068	1.901932	3.954	3099452.000	3209666.776	-110214.776	-3.434
4	100.000000	100.683576	-0.683576	-0.679	6146722.000	6107109.531	39612.469	0.649

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "o-Xylene"
Date: 3/15/98 Time: 11:44 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998841
Calibration Curve = (209684.704082) + (49806.351020)X

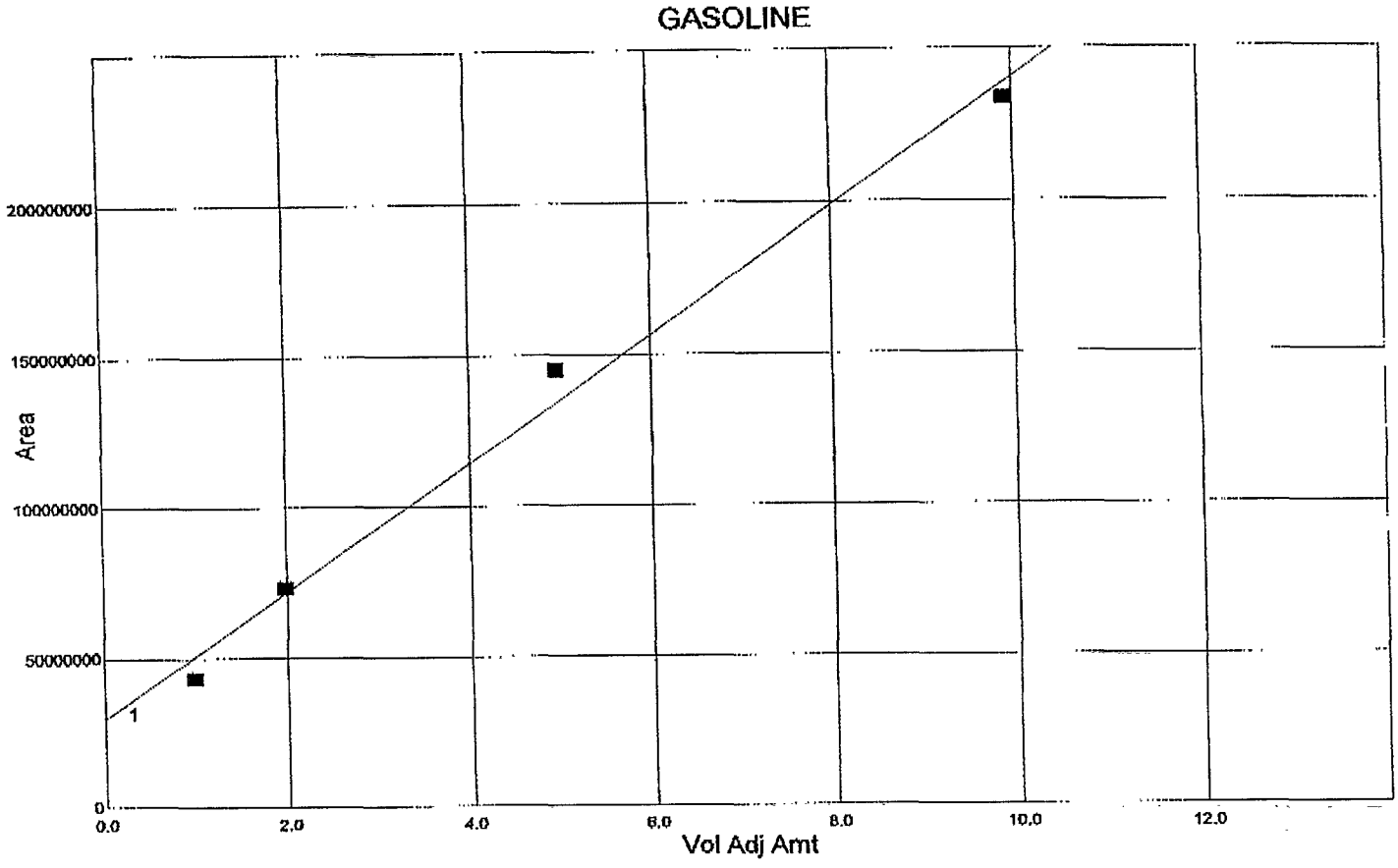


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	10.087334	-0.087334	-0.866	712098.000	707748.214	4349.786	0.615
2	20.000000	21.127613	-1.127613	-5.337	1261974.000	1205811.724	56162.276	4.658
3	50.000000	48.038619	1.961381	4.083	2602313.000	2700002.255	-97689.255	-3.618
4	100.000000	100.746435	-0.746435	-0.741	5227497.000	5190319.806	37177.194	0.716

Fit Analysis Output For Method File: "C:\TC4\GC1\GC1B.MTH"
Component Name: "GASOLINE"
Date: 3/15/98 Time: 11:43 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.990669
Calibration Curve = (29862801.275510) + (21094761.554319)X

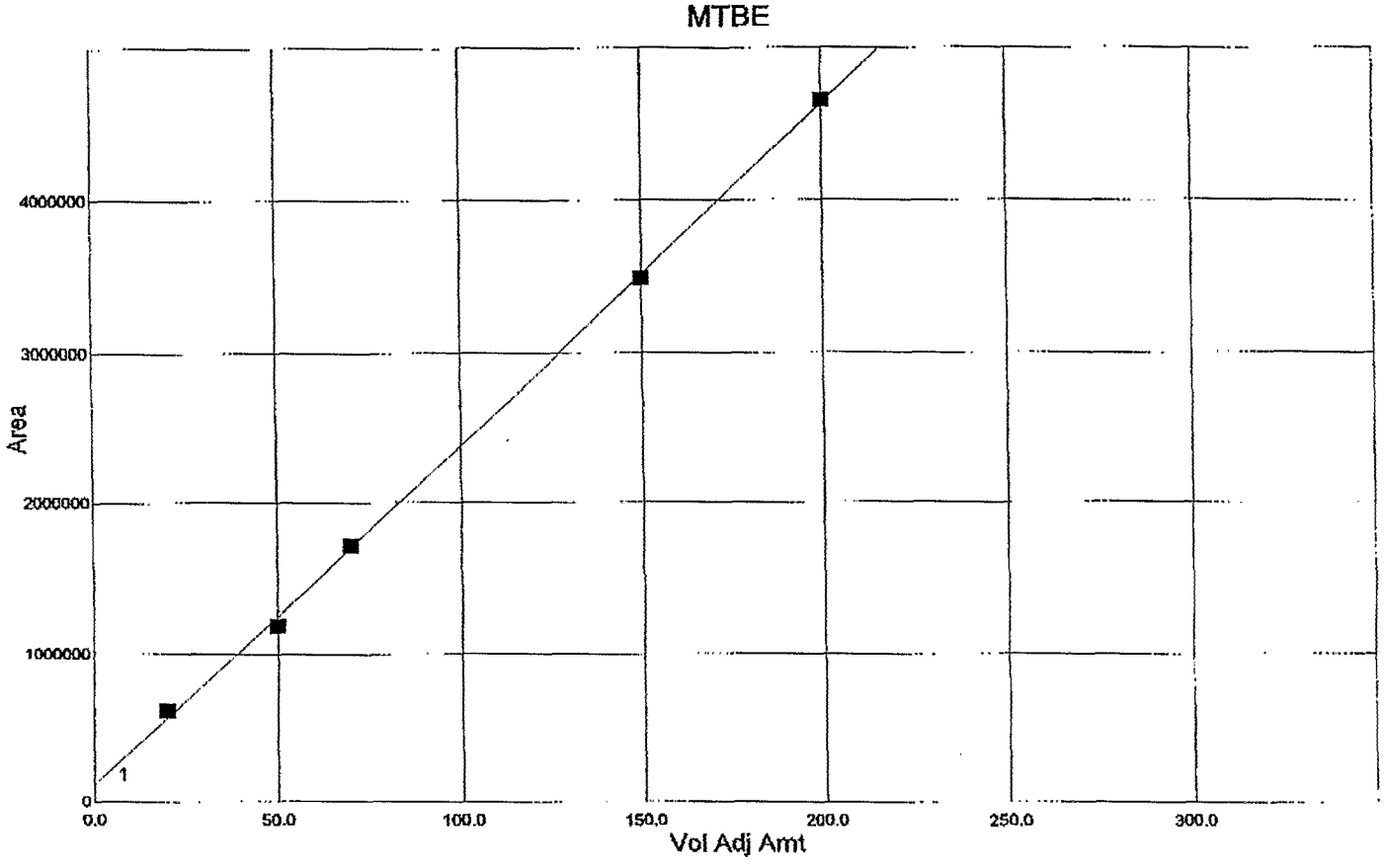


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	0.636249	0.353751	55.599	43304320.000	50766615.214	-7462295.214	-14.699
2	1.980000	2.056167	-0.076167	-3.704	73257150.000	71650429.153	1606720.847	2.242
3	4.950000	5.464885	-0.514885	-9.422	145163249.000	134301870.969	10861378.031	8.087
4	9.900000	9.662699	0.237301	2.456	233715137.000	238720940.663	-5005803.663	-2.097

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "MTBE"
Date: 3/15/98 Time: 11:45 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999344
Calibration Curve = (123760.155296) + (22579.378007)X

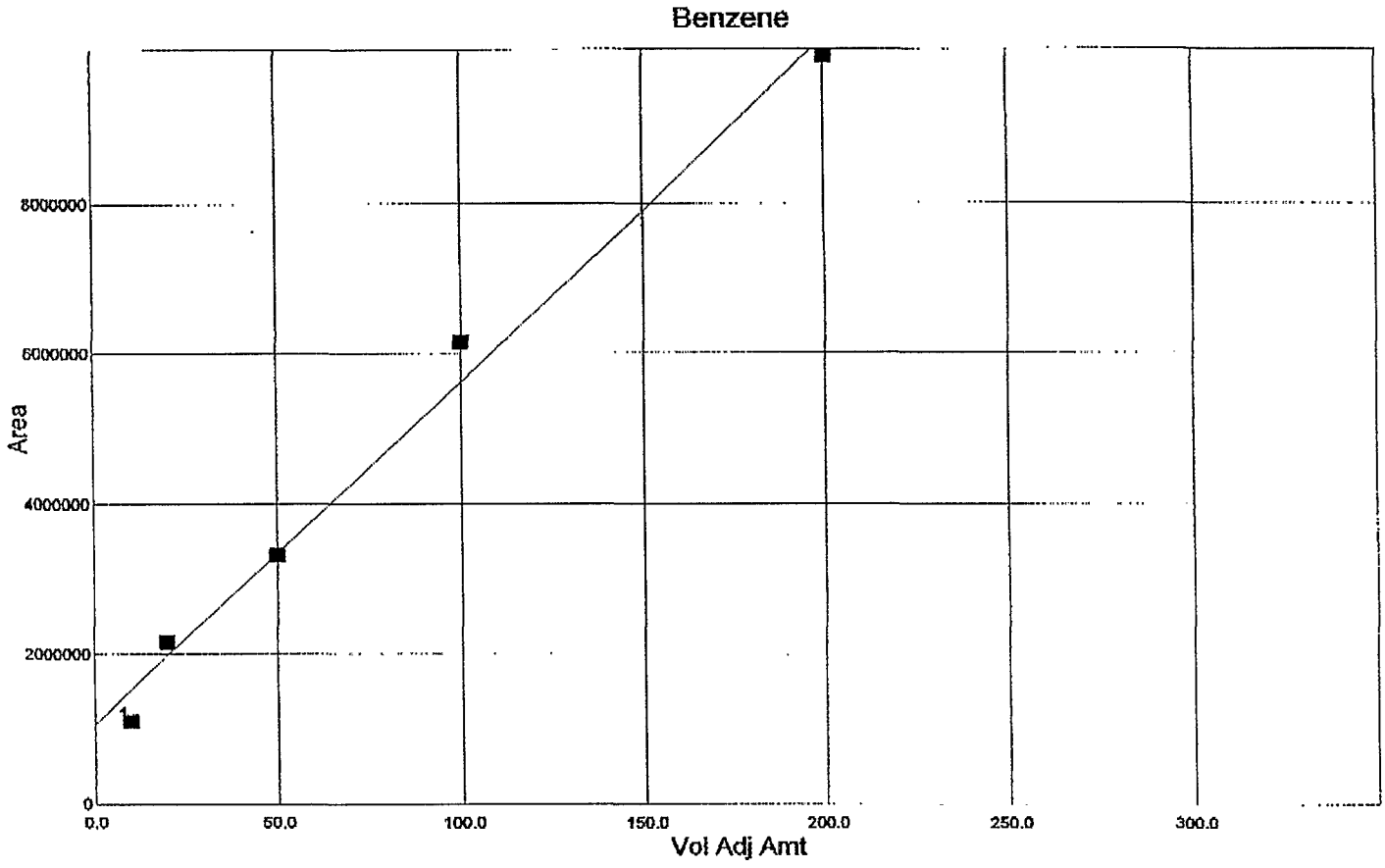


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	20.000000	22.053258	-2.053258	-9.310	621709.000	575347.715	46361.285	8.058
2	50.000000	47.305415	2.694585	5.696	1191887.000	1252729.056	-60842.056	-4.857
3	70.000000	70.722535	-0.722535	-1.022	1720631.000	1704316.616	16314.384	0.957
5	150.000000	148.813437	1.186563	0.797	3483875.000	3510666.856	-26791.856	-0.763
6	200.000000	201.105356	-1.105356	-0.550	4664594.000	4639635.757	24958.243	0.538

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Benzene"
Date: 3/15/98 Time: 11:45 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.989102
Calibration Curve = (1085449.860697) + (45344.222886)X

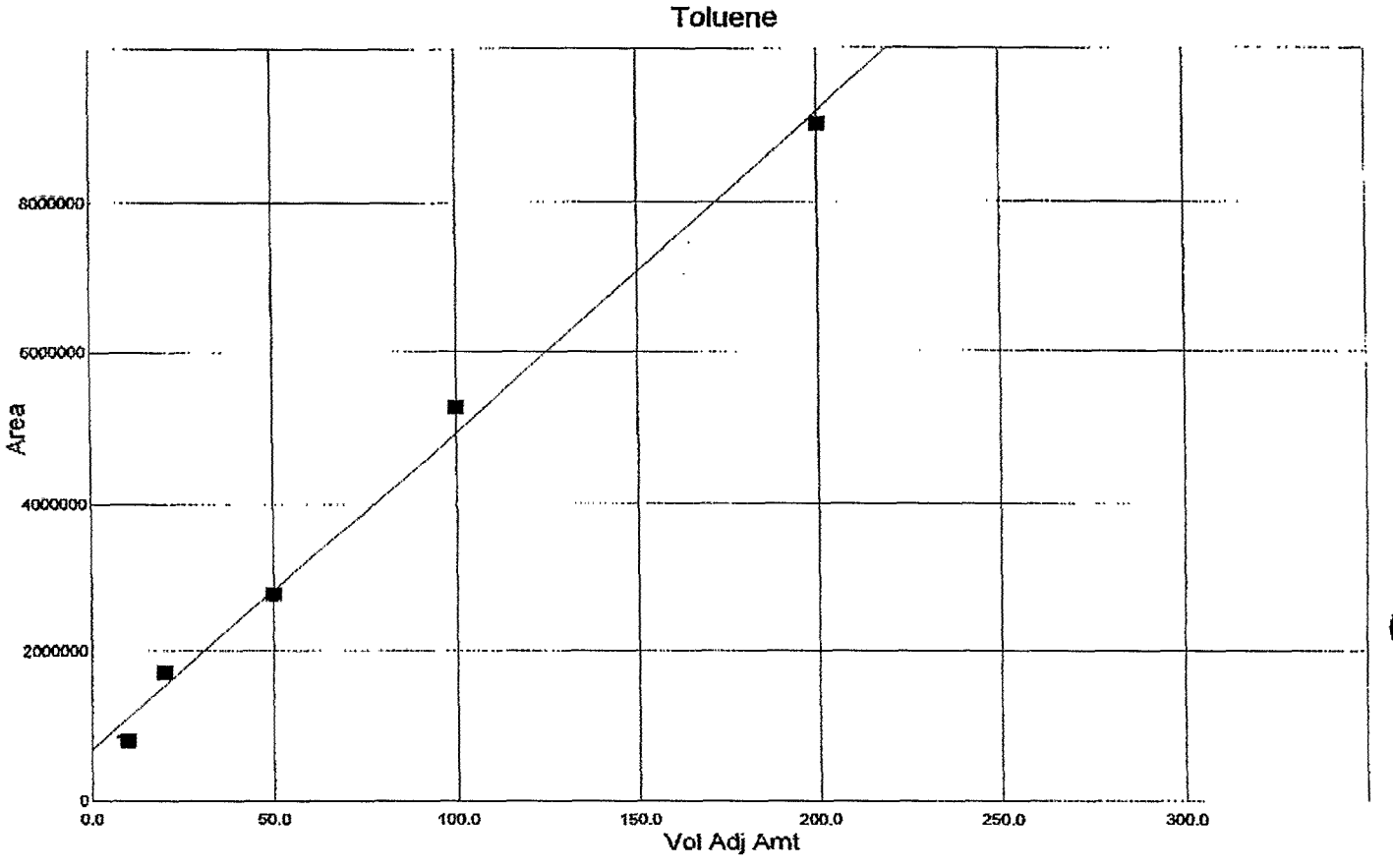


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	0.720889	9.279111	1287.17	1118138.000	1538892.090	-420754.090	-27.341
2	20.000000	23.946251	-3.946251	-16.480	2171274.000	1992334.318	178939.682	8.981
3	50.000000	49.328139	0.671861	1.362	3322196.000	3352661.005	-30465.005	-0.909
4	100.000000	111.534851	-11.534851	-10.342	6142911.000	5619872.149	523038.851	9.307
5	200.000000	194.469870	5.530130	2.844	9903535.000	10154294.438	-250759.438	-2.469

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Toluene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.993963
Calibration Curve = (709550.966833) + (42380.803068)X

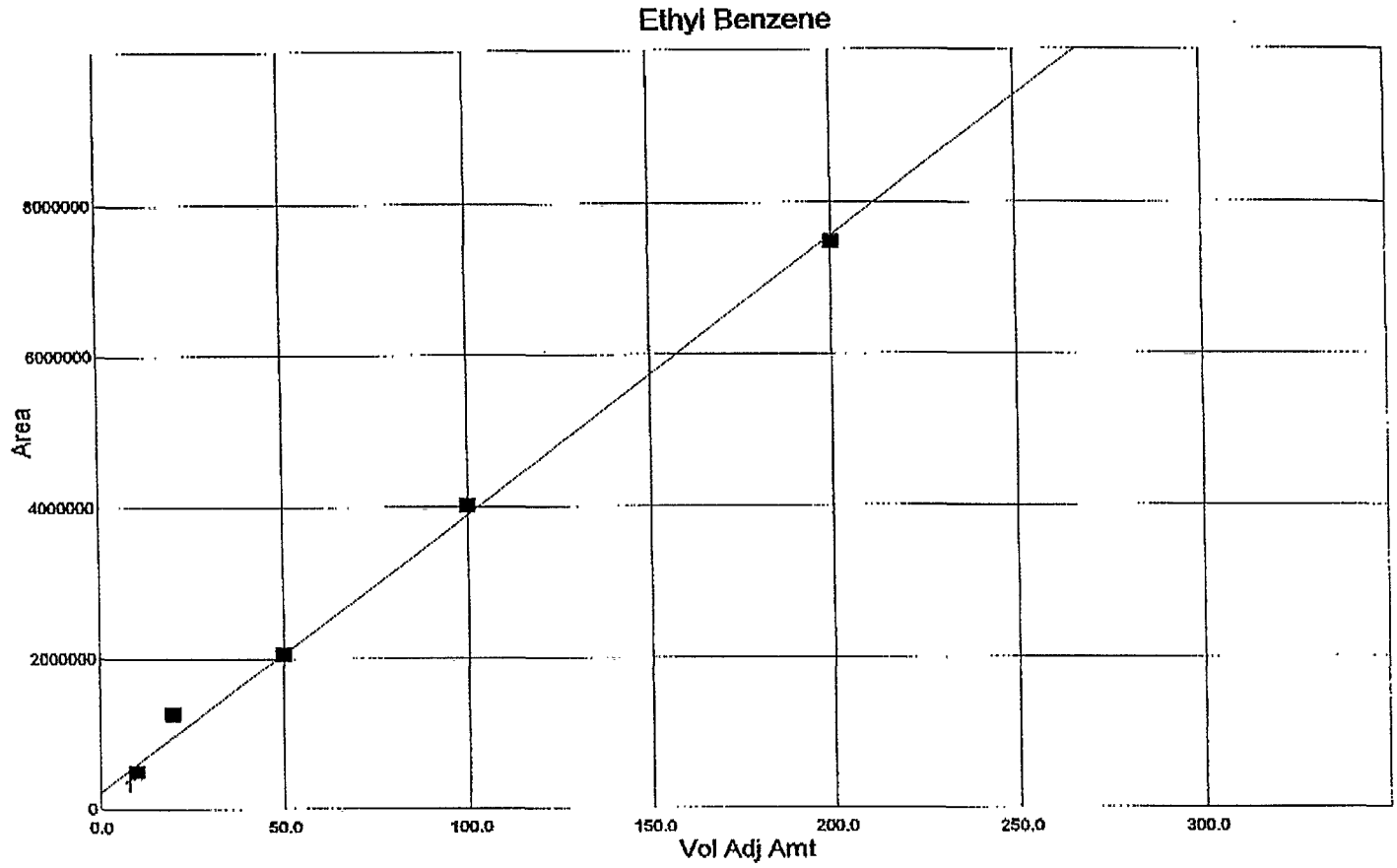


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	2.801245	7.198755	256.984	828270.000	1133358.998	-305088.998	-26.919
2	20.000000	24.216460	-4.216460	-17.412	1735864.000	1557167.028	178696.972	11.476
3	50.000000	48.816914	1.183086	2.424	2778451.000	2828591.120	-50140.120	-1.773
4	100.000000	107.862634	-7.862634	-7.289	5280856.000	4947631.274	333224.726	6.735
5	200.000000	196.302746	3.697254	1.883	9029019.000	9185711.580	-156692.580	-1.706

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "Ethyl Benzene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor - 1.0 (No Weighting) r^2 - 0.995283
Calibration Curve - (235412.184332) + (36632.926037)X

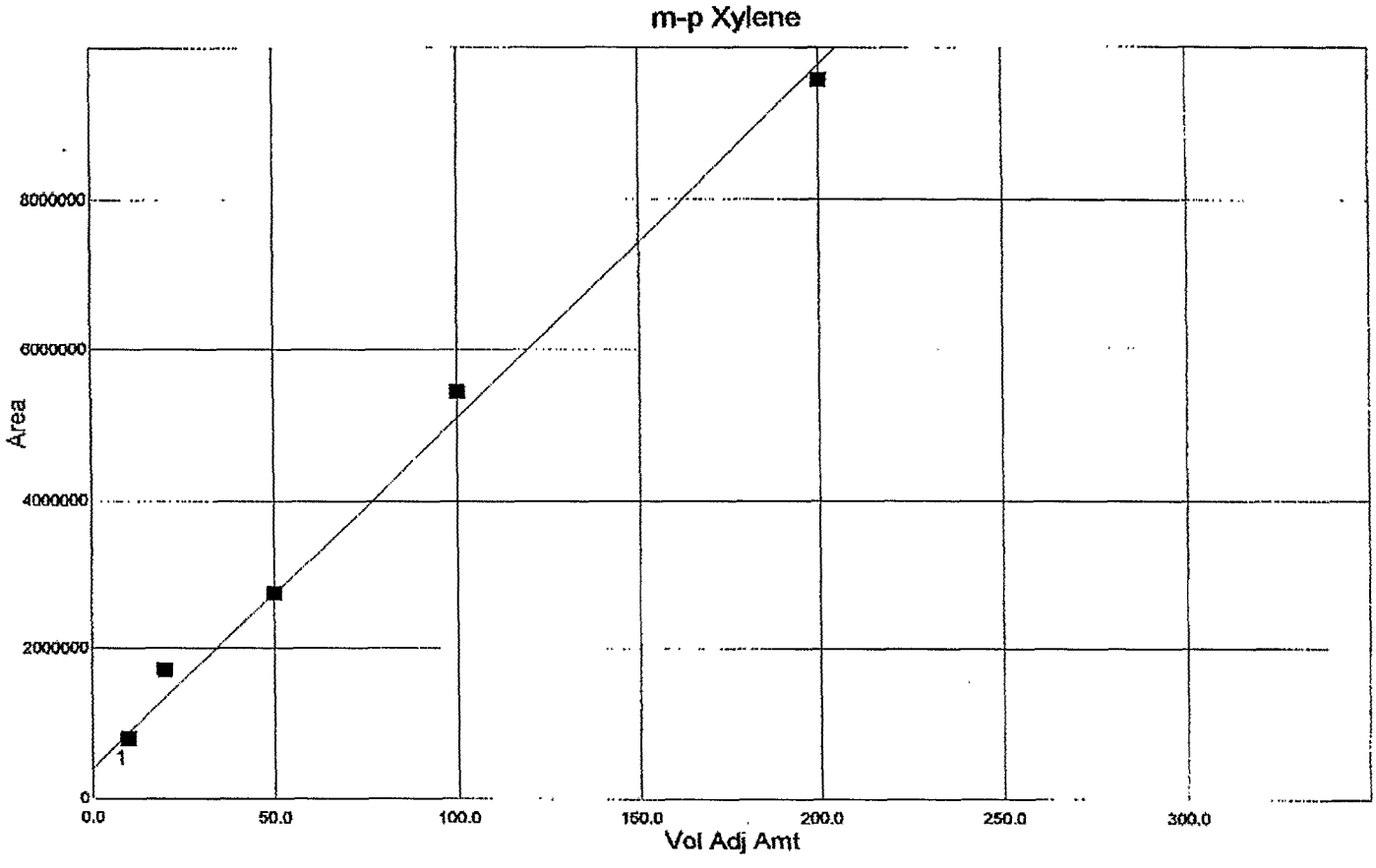


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	7.230376	2.769624	38.305	500282.000	601741.445	-101459.445	-16.861
2	20.000000	28.268963	-8.268963	-29.251	1270987.000	968070.705	302916.295	31.291
3	50.000000	49.690183	0.309817	0.623	2055709.000	2067058.486	-11349.486	-0.549
4	100.000000	103.695370	-3.695370	-3.564	4034077.000	3898704.788	135372.212	3.472
5	200.000000	197.541354	2.458646	1.245	7471930.000	7561997.392	-90067.392	-1.191

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "m-p Xylene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order - Incl Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.992714
Calibration Curve = (414126.528802) + (46791.983756)X

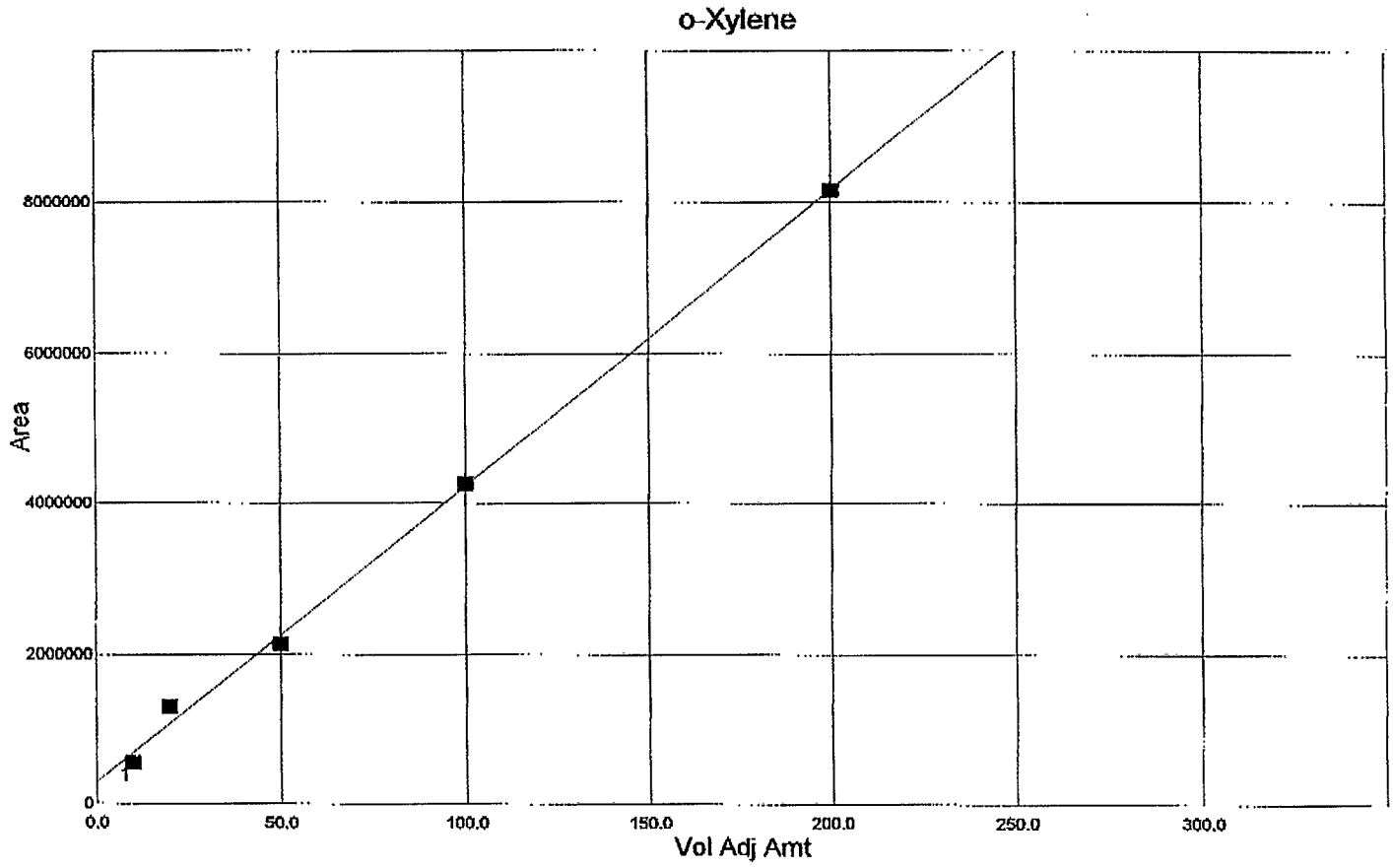


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	8.120824	1.879176	23.140	794116.000	882046.366	-87930.366	-9.969
2	20.000000	27.872327	-7.872327	-28.244	1718328.000	1349966.204	368361.796	27.287
3	50.000000	49.996074	0.003926	0.008	2753542.000	2753725.717	-183.717	-0.007
4	100.000000	107.106882	-7.106882	-6.635	5425870.000	5093324.904	332545.096	6.529
5	200.000000	195.754267	4.245733	2.169	9573857.000	9772523.280	-198666.280	-2.033

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "o-Xylene"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor - 1.0 (No Weighting) r^2 - 0.997713
Calibration Curve = (297775.484245) + (39294.275207)X

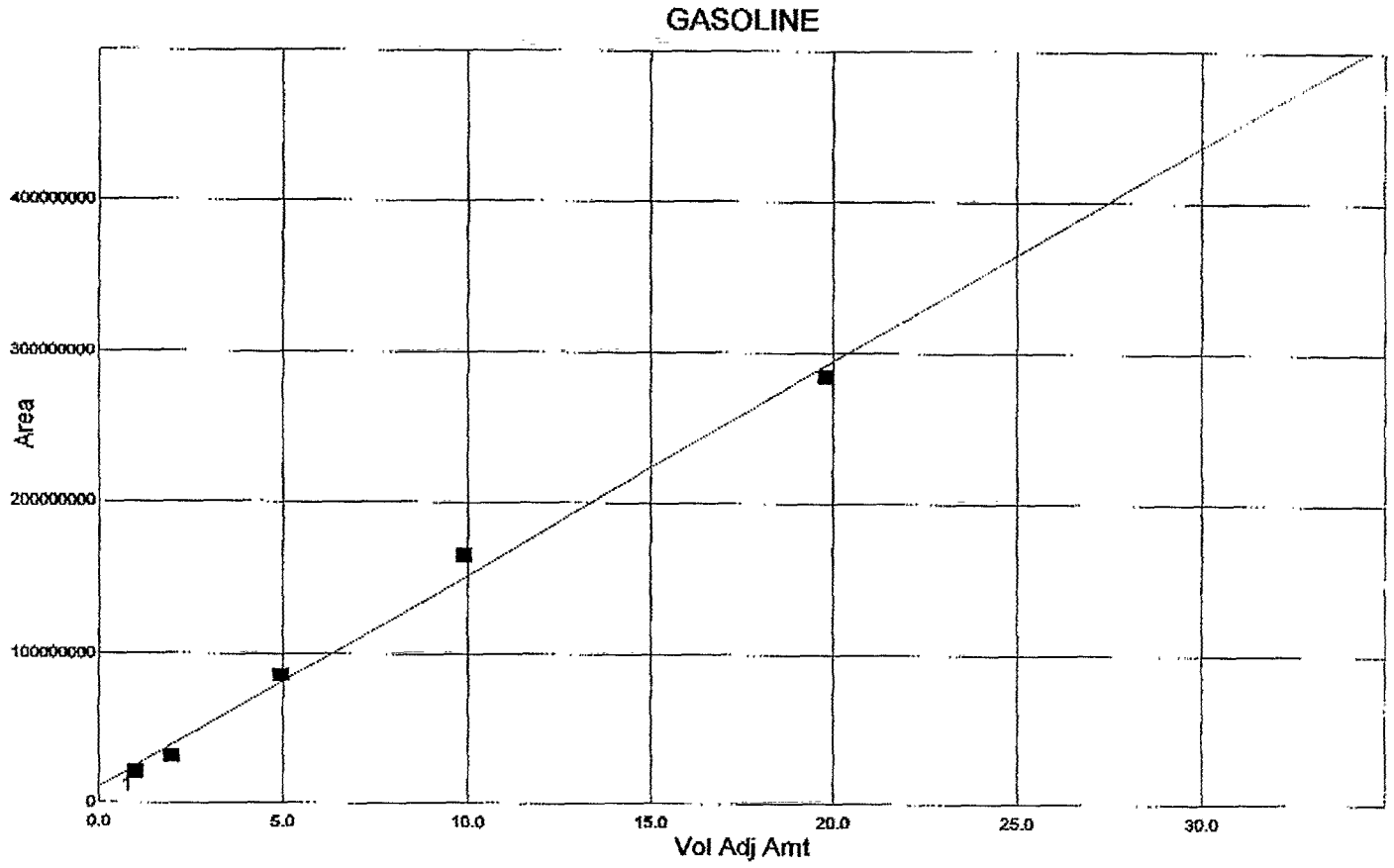


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	10.000000	6.463296	3.536704	54.720	551746.000	690718.236	-138972.236	-20.120
2	20.000000	25.726840	-5.726840	-22.260	1308693.000	1083660.988	225032.012	20.766
3	50.000000	46.984287	3.015713	6.419	2143989.000	2262489.245	-118500.245	-5.238
4	100.000000	100.934996	-0.934996	-0.926	4263943.000	4227203.005	36739.995	0.869
5	200.000000	199.890581	0.109419	0.055	8152331.000	8156630.526	-4299.526	-0.053

Fit Analysis Output For Method File: "C:\TC4\GC2\GC2B.MTH"
Component Name: "GASOLINE"
Date: 3/15/98 Time: 11:47 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.992342
Calibration Curve = (11112913.505804) + (14166125.663769)X



Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.990000	0.695700	0.294300	42.303	20968289.000	25137377.913	-4169088.913	-16.585
2	1.980000	1.438829	0.541171	37.612	31495545.000	39161842.320	-7666297.320	-19.576
3	4.950000	5.288756	-0.338756	-6.405	86034100.000	81235235.541	4798864.459	5.907
4	9.900000	10.925143	-1.025143	-9.383	165879865.000	151357557.577	14522307.423	9.595
5	19.800000	19.271571	0.528429	2.742	284116416.000	291602201.648	-7485785.648	-2.567

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-3401

CRWQCB - L.A. REGION
WELL INVESTIGATION PROGRAM
QA/QC REPORT

PREPARED FOR ALTON GEOSCIENCE
PROJECT: 200368-01 TA10
SAMPLED: 2/26/98

ATTENTION: GIL FRY

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338
9484 Chesapeake Dr. Suite 805 San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

50255

CHAIN OF CUSTODY FORM

Quote No.: _____ Page: 1 of 1

Client Name: ALTON GEOSCIENCE
Address: 25A TECHNOLOGY DR.
City: IRVINE State: CA. Zip: 92718
Tel: 753-0101 Fax.: 753-0101

P.O./Project Number: 200361 UNOCAL 4357
Project Name: 11280 NATIONAL BLVD LA
Project Manager:
Sampler(s) (signature): Mark Rudolis

Sample I.D.	Matrix	Date Sampled	Time	Preservation	Number of Containers	Type of Containers	8015 (Gas) ☒ 8020 (BTEX) ☒	MTBE (8020) ☒ 8015/8020/MTBE ☐	8015 (Diesel) ☐ fuel fingerprint ☐ simulated distillation ☐	Oil & Grease - EPA 413.2	TRPH - EPA 418.1	EPA 8010 ☐ EPA 8010/8020 ☐	EPA 8270	Title 22 Metals EPA 6010/7000 ☐ +Cr VI ☐	EPA 8260 ☐ + Oxygenates ☐ +MTBE ☐ MTBE only ☐	Lead	pH	8260 BTEX + OXYGENATES	DISSOLVED METALS	ALK, SPEC. COND, PH, CL	NO3, SO4	TDS PHOSPHORUS		
MW-1	H_2O	2/26/98	9:19	MX	9	MX	X											X	X	X	X	X		
MW-2			10:22		9													X	X	X	X	X		
MW-3			10:55		9													X	X	X	X	X		
EQUIP. BLANK PROBE			N/A		6	V																		
EQUIP. BLANK PUMP			N/A		6	V																		
FIELD BLANKS			N/A		6	V																		
TRIP BLANKS			N/A		6	V																		

2/26/98 confirmation per Gil Fry

Relinquished by: Mark Rudolis Date/Time: 2/26/98 12:10
Received by: [signature] 2/26/98 Date/Time: 12:10
Relinquished by: [signature] 2/26/98 2:30 PM Date/Time:
Received by: Date/Time:
Relinquished by: Date/Time:
Received in Lab by: [signature] Date/Time: 2/26/98 2:30 pm

Turnaround Time: (check one):
Same Day ___ 72 hours ___
24 Hours ___ 5 Days X
48 Hours ___ Standard ___

Sample Integrity:
Intact: X On Ice X

Remarks.

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on the chain of custody form and any additional analyses performed on

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1228
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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 3/4/98 Del Mar Analytical Project Manager: Pat Abe

Request via: ✓ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: Alton Geoscience Contact: Gil Fry

Project: 200368-01 TA10 Tosco 4357

Date Sampled: 2/26/98 Date Received: 2/26/98

Status: ✓ in progress ____ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
H B02913	MW-1	8260 for BTEX+OXY only Channel format	WIP mult. dil.
2914	MW-2		
2915	MW-3		
2916	Equip. Blank Probe		
2917	Equip. Blank Pump		
2918	Field Blanks		
2919	Trip Blanks		

TURNAROUND STATUS: ____ Same Day ____ 24hr ____ 48hr ✓ 3days

____ 5days ____ Standard ✓ No Rush Charge

g:\dmai\misc\forms\add-req.doc

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Del Mar Analytical

Address: 2852 Alton Avenue

Irvine, CA 92606

Telephone/FAX: (714) 261-1022 / (714) 261-1228

ELAP Certification No.: 1197 Expiration Date: May 31, 1998

Authorized Signature:
Name, Title (print) Scott C. Hoatson, Quality Assurance Officer

Signature, Date:

Client Name: Alton Geoscience

Project No.: 200368-01 TA10 Tosco 4357

Date(s) Sampled: 2/26/98 To

Date(s) Received: 2/26/98 To

Date(s) Reported: 3/6/98 To

Chain of Custody received: Yes X No

Comments:

(RWQCB LabForm; Ver 12/94)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
EPA 8260	7	0

Sample Condition: Acceptable

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

PROJECT NO: 200368-01 TA10 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: **EPA 8260 Modified** **REPORTING UNIT:** **µg/L**

	DATE ANALYZED	3/5/98	3/5/98	3/5/98	3/5/98
	DATE EXTRACTED	3/5/98	3/5/98	3/5/98	3/5/98
	LAB SAMPLE ID	Method Blank	HC00624	HC00625	HC00626
	SAMPLE ID	HC05091W	MW-1	MW-2	MW-3
	EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
	EXTRACTION METHOD	8260	8260	8260	8260
	DILUTION FACTOR	1	1	1	1
COMPOUND	**MDL**				
Benzene	0.90	< 0.90	< 0.90	< 0.90	< 0.90
Ethyl benzene	1.4	< 1.4	< 1.4	< 1.4	< 1.4
Toluene	0.90	< 0.90	< 0.90	< 0.90	< 0.90
o-Xylene	1.3	< 1.3	< 1.3	< 1.3	< 1.3
m,p-Xylenes	2.6	< 2.6	< 2.6	< 2.6	< 2.6
Methyl tertiary-Butyl Ether	2.1	< 2.1	< 2.1	< 2.1	< 2.1
Di-isopropyl Ether	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Ethyl tertiary-Butyl Ether	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Tertiary-Amyl Methyl Ether	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Tertiary-Butanol	49	< 49	< 49	< 49	< 49

SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
Dibromofluoromethane	100	86-118	109	109	110	110
Toluene-d8	100	88-110	102	102	102	103
4-Bromofluorobenzene	100	86-115	107	106	107	107

PROJECT NO: 200368-01 TA10 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: **EPA 8260 Modified** **REPORTING UNIT:** **µg/L**

DATE ANALYZED		3/5/98	3/5/98	3/5/98	3/5/98
DATE EXTRACTED		3/5/98	3/5/98	3/5/98	3/5/98
LAB SAMPLE ID		HC00627	HC00628	HC00629	HC00630
SAMPLE ID		Equip. Blank Probe	Equip. Blank Pump	Field Blank	Trip Blanks
EXTRACTION SOLVENT		n/a	n/a	n/a	n/a
EXTRACTION METHOD		8260	8260	8260	8260
DILUTION FACTOR		1	1	1	1
COMPOUND	**MDL**				
Benzene	0.90	< 0.90	< 0.90	< 0.90	< 0.90
Ethyl benzene	1.4	< 1.4	< 1.4	< 1.4	< 1.4
Toluene	0.90	< 0.90	< 0.90	< 0.90	< 0.90
o-Xylene	1.3	< 1.3	< 1.3	< 1.3	< 1.3
m,p-Xylenes	2.6	< 2.6	< 2.6	< 2.6	< 2.6
Methyl tertiary-Butyl Ether	2.1	< 2.1	< 2.1	< 2.1	< 2.1
Di-isopropyl Ether	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Ethyl tertiary-Butyl Ether	1.6	< 1.60	< 1.60	< 1.60	< 1.60
Tertiary-Amyl Methyl Ether	1.6	< 1.6	< 1.6	< 1.6	< 1.6
Tertiary-Butanol	49	< 49	< 49	< 49	< 49

SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
Dibromofluoromethane	100	86-118	113	111	113	113
Toluene-d8	100	88-110	102	102	101	101
4-Bromofluorobenzene	100	86-115	106	108	106	109

PROJECT NO: 200368-01 TA10 (RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 3/5/98
Batch Number: HC05091W
Lab Sample I.D.: HC00627
Analytical Method: EPA 8260
Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	%MSD	RPD	MS/MSD Limit	RPD Limit
Benzene	0	50	49	98%	50	50	100%	2.0%	70-130	≤ 20
Ethyl Benzene	0	50	52	104%	50	51	102%	1.9%	70-130	≤ 20
Toluene	0.10	50	49	98%	50	50	100%	2.0%	70-130	≤ 20
o-Xylene	0	50	52	104%	50	54	108%	3.8%	70-130	≤ 20
m,p-Xylenes	0	100	102	102%	100	102	102%	0.0%	70-130	≤ 20
Methyl tertiary-Butyl Ether	0	50	57	114%	50	69	138%	19.0%	70-130	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 3/5/98
Supply Source: Ultra Scientific
Lot Number: K-1057
Date of Source: 2/9/98
Analytical Method: EPA 8260
Reporting Unit: µg/L
Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Benzene	50	49	98%	70-130
Ethyl Benzene	50	51	102%	70-130
Toluene	50	50	100%	70-130
o-Xylene	50	51	102%	70-130
m,p-Xylenes	100	102	102%	70-130
Methyl tertiary-Butyl Ether	50	57	114%	70-130

CALIBRATION STANDARD

Method:	EPA 8260
Standard Supply Source:	Absolute
Date of Source:	2/19/98
Lot Number:	122396

Response Factor Report GC/MS #9

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Mon Mar 02 17:55:47 1998
Response via : Initial Calibration

Calibration Files

2	=VSTD002.D	5	=VSTD005.D	10	=VSTD010.D
20	=VSTD020.D	50	=VSTD050.D	100	=VSTD100.D

		Compound	2	5	10	20	50	100	Avg	%RSD
1)	I	Pentafluorobenzene (I	----------	----------	ISTD	----------	----------	----------		
2)	S	Dibromofluoromethan			0.499	0.461	0.471	0.459	0.463	5.71
3)	T	Dichlorodifluoromet		0.544	0.661	0.627	0.652	0.607	0.613	7.12
4)	P	Chloromethane	0.544	0.701	0.784	0.727	0.741	0.661	0.691	11.05
5)	CM	Vinyl Chloride	0.516	0.678	0.754	0.713	0.706	0.644	0.662	11.75
6)	T	Bromomethane	0.291	0.424	0.461	0.440	0.457	0.404	0.412	14.03
7)	T	Chloroethane		0.350	0.413	0.386	0.401	0.357	0.380	6.47
8)	T	Trichlorofluorometh	0.636	0.887	0.945	0.884	0.919	0.819	0.849	12.11
9)	T	Acetone		0.166	0.221	0.189	0.209	0.183	0.200	12.52
10)	CM	1,1-Dichloroethene	0.328	0.478	0.528	0.501	0.518	0.484	0.479	14.45
11)	T	Methylene Chloride	0.359	0.494	0.585	0.527	0.546	0.500	0.507	14.17
12)	T	Carbon disulfide	0.972	1.223	1.383	1.274	1.319	1.219	1.245	10.73
13)	T	trans-1,2-Dichloroe	0.402	0.525	0.587	0.542	0.562	0.515	0.525	11.27
14)	TM	MTBE	1.188	1.462	1.717	1.594	1.619	1.396	1.504	11.60
15)	PM	1,1-Dichloroethane	0.888	1.087	1.205	1.115	1.142	1.027	1.078	9.31
16)	T	Vinyl Acetate	0.529	0.646	0.748	0.632	0.721	0.687	0.673	11.62
17)	T	2-Butanone (MEK)		0.323	0.374	0.313	0.348	0.325	0.347	9.[illegible]
18)	T	cis-1,2-Dichloroeth	0.412	0.503	0.606	0.563	0.579	0.526	0.535	11.[illegible]
19)	T	2,2-Dichloropropane	0.666	0.882	0.925	0.866	0.896	0.759	0.820	11.83
20)	T	Bromochloromethane	0.113	0.237	0.264	0.240	0.246	0.225	0.224	22.50*
21)	CM	Chloroform	1.008	1.095	1.278	1.192	1.190	1.079	1.138	7.83
22)	T	1,1,1-Trichloroetha	0.978	1.172	1.287	1.204	1.202	1.072	1.144	8.99
23)	I	1,4-Difluorobenzene (	----------	----------	ISTD	----------	----------	----------		
24)	S	Toluene-d8 (SU)			1.451	1.361	1.423	1.369	1.371	5.54
25)	T	1,1-Dichloropropene	0.540	0.587	0.665	0.614	0.646	0.571	0.601	7.22
26)	T	Carbon Tetrachlorid	0.554	0.647	0.716	0.656	0.673	0.596	0.634	8.62
27)	M	1,2-Dichloroethane	0.660	0.766	0.819	0.755	0.762	0.673	0.732	8.04
28)	M	Benzene	1.296	1.498	1.642	1.525	1.573	1.421	1.493	7.42
29)	M	Trichloroethene	0.295	0.377	0.420	0.391	0.390	0.354	0.371	10.58
30)	C	1,2-Dichloropropane	0.315	0.391	0.424	0.387	0.400	0.367	0.381	8.90
31)	T	Dibromomethane	0.174	0.238	0.258	0.237	0.245	0.224	0.231	11.76
32)	T	Bromodichloromethan	0.534	0.615	0.684	0.631	0.655	0.593	0.618	7.71
33)	T	2-Chlorovinylethyle	0.154	0.222	0.260	0.226	0.238	0.230	0.228	16.18*
34)	T	cis-1,3-Dichloropro	0.584	0.689	0.758	0.712	0.742	0.673	0.695	8.22
35)	CM	Toluene	0.923	1.022	1.103	1.028	1.067	0.969	1.019	5.84
36)	T	4-Methyl-2-Pentanon		0.394	0.463	0.370	0.397	0.379	0.412	10.28
37)	T	trans-1,3-Dichlorop	0.617	0.722	0.818	0.730	0.770	0.706	0.731	8.52
38)	T	1,1,2-Trichloroetha	0.279	0.359	0.382	0.337	0.350	0.325	0.341	9.57
39)	I	Chlorobenzene-d5 (IS)	----------	----------	ISTD	----------	----------	----------		
40)	S	4-Bromofluorobenzen			0.755	0.676	0.708	0.668	0.689	6.[illegible]
41)	T	1,3-Dichloropropane	0.532	0.645	0.695	0.638	0.660	0.590	0.633	8.[illegible]

* use linear regression curve forced thru (0,0).

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report GC/MS #9

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Mon Mar 02 17:55:47 1998
Response via : Initial Calibration

Calibration Files
2 =VSTD002.D 5 =VSTD005.D 10 =VSTD010.D
20 =VSTD020.D 50 =VSTD050.D 100 =VSTD100.D

		Compound	2	5	10	20	50	100	Avg	%RSD
42)	T	2-Hexanone		0.286	0.347	0.265	0.298	0.278	0.306	12.96
43)	M	Tetrachloroethene	0.326	0.339	0.365	0.339	0.351	0.314	0.339	4.84
44)	T	Dibromochloromethan	0.293	0.394	0.431	0.397	0.419	0.382	0.392	12.12
45)	T	1,2-Dibromoethane	0.273	0.353	0.376	0.331	0.354	0.323	0.341	10.38
46)	PM	Chlorobenzene	0.935	1.096	1.171	1.073	1.123	1.000	1.069	7.34
47)	T	1,1,1,2-Tetrachloro	0.372	0.436	0.472	0.435	0.453	0.402	0.430	7.72
48)	CM	Ethylbenzene	0.522	0.604	0.653	0.609	0.637	0.567	0.601	7.36
49)	TM	m,p-Xylenes	0.681	0.775	0.821	0.754	0.784	0.699	0.754	6.46
50)	TM	o-Xylene	0.629	0.756	0.811	0.739	0.770	0.691	0.735	8.05
51)	T	Styrene	0.983	1.207	1.353	1.251	1.313	1.185	1.227	10.01
52)	P	Bromoform		0.271	0.295	0.260	0.284	0.265	0.281	7.19
53)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
54)	T	Isopropylbenzene	3.030	3.672	3.962	3.706	3.738	3.330	3.571	8.56
55)	P	1,1,2,2-Tetrachloro	0.654	0.846	0.897	0.769	0.781	0.728	0.791	10.69
56)	T	1,2,3-Trichloroprop	0.578	0.797	0.861	0.711	0.732	0.669	0.735	12.77
57)	T	Bromobenzene	0.689	0.849	0.927	0.847	0.858	0.764	0.824	9.26
58)	T	n-Propylbenzene	4.095	4.734	5.098	4.826	4.859	4.340	4.652	7.28
59)	T	2-Chlorotoluene	2.588	3.025	3.326	3.074	3.091	2.732	2.965	8.26
60)	T	1,3,5-Trimethylbenz	2.766	3.219	3.524	3.287	3.348	2.971	3.179	7.88
61)	T	4-Chlorotoluene	2.670	3.187	3.464	3.184	3.216	2.847	3.083	8.53
62)	T	tert-Butylbenzene	2.347	2.697	2.986	2.730	2.807	2.503	2.671	7.76
63)	T	1,2,4-Trimethylbenz	2.778	3.375	3.619	3.370	3.384	3.024	3.243	8.62
64)	T	sec-Butylbenzene	3.362	4.009	4.310	3.983	4.019	3.614	3.867	8.04
65)	T	p-Isopropyltoluene	3.035	3.551	3.918	3.591	3.670	3.277	3.489	8.22
66)	T	1,3-Dichlorobenzene	1.428	1.721	1.862	1.676	1.704	1.530	1.648	8.53
67)	T	1,4-Dichlorobenzene	1.428	1.732	1.869	1.667	1.730	1.536	1.653	8.75
68)	T	n-Butylbenzene	3.199	3.607	4.074	3.728	3.815	3.459	3.633	7.65
69)	T	1,2-Dichlorobenzene	1.357	1.580	1.743	1.532	1.571	1.436	1.534	7.90
70)	T	1,2-Dibromo-3-chlor		0.181	0.214	0.169	0.176	0.180	0.191	12.09
71)	T	1,2,4-Trichlorobenz	0.970	1.067	1.199	1.048	1.098	1.040	1.081	6.92
72)	T	Hexachlorobutadiene	0.590	0.723	0.748	0.655	0.658	0.632	0.669	8.01
73)	T	Naphthalene	1.995	2.597	2.831	2.272	2.323	2.252	2.432	12.44
74)	T	1,2,3-Trichlorobenz	0.824	0.986	1.082	0.870	0.863	0.817	0.909	10.57

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report GC/MS #9

Method : C:\HPCHEM\1\METHODS\600XY.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Tue Mar 03 10:20:57 1998
Response via : Initial Calibration

Calibration Files
5 =EXT005.D 20 =EXT020.D 50 =EXT050.D
100 =EXT100.D 200 =EXT200.D

		Compound	5	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene (I	----------ISTD----------						
2)	S	Dibromofluoromethane	0.444	0.448	0.449	0.446	0.441	0.446	0.74
3)	T	tert-Butanol	0.103	0.059	0.075	0.060	0.067	0.073#	24.86 *
4)	T	MTBE	1.335	1.393	1.335	1.267	1.323	1.330	3.35
5)	T	Diisopropyl Ether (DI	1.895	1.872	1.823	1.749	1.801	1.828	3.18
6)	T	(ETBE) 2-ethoxy-2-met	2.187	2.193	2.105	2.008	2.055	2.110	3.84
7)	T	(TAME) tert-Amyl meth	1.745	1.714	1.676	1.594	1.631	1.672	3.65
8)	I	1,4-Difluorobenzene (	----------ISTD----------						
9)	S	Toluene-d8 (SU)	1.336	1.345	1.333	1.342	1.342	1.340	0.36
10)	I	Chlorobenzene-d5 (IS)	----------ISTD----------						
11)	S	4-Bromofluorobenzene	0.674	0.680	0.673	0.681	0.675	0.677	0.54
12)	I	1,4-Dichlorobenzene-d	----------ISTD----------						

* use linear Regression curve (0,0)

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\GCMS#9\DATA\98MAR05\VSTD050.D
Acq On : 5 Mar 1998 8:57 am
Sample : 50PPB STD + KETONES + MTBE
Misc : 8260 Initial Cal (03-02-98)
MS Integration Params: rteint.p

Vial: 1
Operator: MNT
Inst : GC/MS #9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Mon Mar 02 17:55:47 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	1.000	1.000	0.0	96	0.00
2	S	Dibromofluoromethane (SU1)	0.463	0.501	-8.2	102	0.00
3	T	Dichlorodifluoromethane	0.613	0.550	10.3	81	0.00
4	P	Chloromethane	0.691	0.704	-1.9	91	0.00
5	CM	Vinyl Chloride	0.662	0.698	-5.4	95	0.00
6	T	Bromomethane	0.412	0.439	-6.6	92	0.00
7	T	Chloroethane	0.380	0.363	4.5	87	0.01
8	T	Trichlorofluoromethane	0.849	0.943	-11.1	99	0.02
9	T	Acetone	0.200	0.195	2.5	90	0.00
10	CM	1,1-Dichloroethene	0.479	0.493	-2.9	91	0.00
11	T	Methylene Chloride	0.507	0.506	0.2	89	0.00
12	T	Carbon disulfide	1.245	1.227	1.4	89	0.00
13	T	trans-1,2-Dichloroethene	0.525	0.529	-0.8	90	0.00
14	TM	MTBE	1.504	1.487	1.1	88	0.00
15	PM	1,1-Dichloroethane	1.078	1.096	-1.7	92	0.00
16	T	Vinyl Acetate	0.673	0.570	15.3	76	0.00
17	T	2-Butanone (MEK)	0.347	0.298	14.1	82	0.00
18	T	cis-1,2-Dichloroethene	0.535	0.539	-0.7	89	0.00
19	T	2,2-Dichloropropane	0.820	0.853	-4.0	91	0.00
20	T	Bromochloromethane	0.224	0.234	-4.5	91	0.00
21	CM	Chloroform	1.138	1.197	-5.2	97	0.00
22	T	1,1,1-Trichloroethane	1.144	1.238	-8.2	99	0.00
23	I	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	95	0.00
24	S	Toluene-d8 (SU)	1.371	1.421	-3.6	95	0.00
25	T	1,1-Dichloropropene	0.601	0.625	-4.0	92	0.00
26	T	Carbon Tetrachloride	0.634	0.715	-12.8	101	0.00
27	M	1,2-Dichloroethane	0.732	0.781	-6.7	98	0.00
28	M	Benzene	1.493	1.458	2.3	88	0.00
29	M	Trichloroethene	0.371	0.378	-1.9	92	0.00
30	C	1,2-Dichloropropane	0.381	0.370	2.9	88	0.00
31	T	Dibromomethane	0.231	0.236	-2.2	92	0.00
32	T	Bromodichloromethane	0.618	0.656	-6.1	95	0.00
33	T	2-Chlorovinylethylether (2-	0.228	0.201	11.8	81	0.00
34	T	cis-1,3-Dichloropropene	0.695	0.702	-1.0	90	0.00
35	CM	Toluene	1.019	1.000	1.9	89	0.00
36	T	4-Methyl-2-Pentanone(MIBK)	0.412	0.353	14.3	85	0.00
37	T	trans-1,3-Dichloropropene	0.731	0.746	-2.1	92	0.00
38	T	1,1,2-Trichloroethane	0.341	0.323	5.3	88	0.00
39	I	Chlorobenzene-d5 (IS)	1.000	1.000	0.0	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\GCMS#9\DATA\98MAR05\VSTD050.D
Acq On : 5 Mar 1998 8:57 am
Sample : 50PPB STD + KETONES + MTBE
Misc : 8260 Initial Cal (03-02-98)
MS Integration Params: rteint.p

Vial: 1
Operator: MNT
Inst : GC/MS #9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Mon Mar 02 17:55:47 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	S	4-Bromofluorobenzene (SU)	0.689	0.723	-4.9	99	0.00
41	T	1,3-Dichloropropane	0.633	0.603	4.7	88	0.00
42	T	2-Hexanone	0.306	0.255	16.7	83	0.00
43	M	Tetrachloroethene	0.339	0.330	2.7	91	0.00
44	T	Dibromochloromethane	0.392	0.405	-3.3	94	0.00
45	T	1,2-Dibromoethane	0.341	0.327	4.1	89	0.00
46	PM	Chlorobenzene	1.069	1.047	2.1	90	0.00
47	T	1,1,1,2-Tetrachloroethane	0.430	0.436	-1.4	93	0.00
48	CM	Ethylbenzene	0.601	0.590	1.8	90	0.00
49	TM	m,p-Xylenes	0.754	0.737	2.3	91	0.00
50	TM	o-Xylene	0.735	0.728	1.0	91	0.00
51	T	Styrene	1.227	1.236	-0.7	91	0.00
52	P	Bromoform	0.281	0.261	7.1	89	0.00
53	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
54	T	Isopropylbenzene	3.571	3.607	-1.0	93	0.00
55	P	1,1,2,2-Tetrachloroethane	0.791	0.684	13.5	85	0.00
56	T	1,2,3-Trichloropropane	0.735	0.665	9.5	88	0.00
57	T	Bromobenzene	0.824	0.813	1.3	92	0.00
58	T	n-Propylbenzene	4.652	4.687	-0.8	93	0.00
59	T	2-Chlorotoluene	2.965	3.011	-1.6	94	0.00
60	T	1,3,5-Trimethylbenzene	3.179	3.249	-2.2	94	0.00
61	T	4-Chlorotoluene	3.083	3.126	-1.4	94	0.00
62	T	tert-Butylbenzene	2.671	2.706	-1.3	93	0.00
63	T	1,2,4-Trimethylbenzene	3.243	3.296	-1.6	94	0.00
64	T	sec-Butylbenzene	3.867	3.862	0.1	93	0.00
65	T	p-Isopropyltoluene	3.489	3.531	-1.2	93	0.00
66	T	1,3-Dichlorobenzene	1.648	1.632	1.0	93	0.00
67	T	1,4-Dichlorobenzene	1.653	1.641	0.7	92	0.00
68	T	n-Butylbenzene	3.633	3.688	-1.5	94	0.00
69	T	1,2-Dichlorobenzene	1.534	1.468	4.3	90	0.00
70	T	1,2-Dibromo-3-chloropropane	0.191	0.152	20.4	83	0.00
71	T	1,2,4-Trichlorobenzene	1.081	0.960	11.2	85	0.00
72	T	Hexachlorobutadiene	0.669	0.614	8.2	90	0.00
73	T	Naphthalene	2.432	1.802	25.9	75	0.00
74	T	1,2,3-Trichlorobenzene	0.909	0.691	24.0	78	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\GCMS#9\DATA\98MAR05\EXT050.D
Acq On : 5 Mar 1998 9:37 am
Sample : 50ppb OXY + 250ppb tert-butanol
Misc : 8260 ext. std (3/02/98)
MS Integration Params: rteint.p

Vial: 2
Operator: MNT
Inst : GC/MS #9
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\600XY.M (RTE Integrator)
Title : 8260 Purgeables Calibration
Last Update : Tue Mar 03 10:20:57 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	1.000	1.000	0.0	74	0.00
2	S	Dibromofluoromethane (SU1)	0.446	0.483	-8.3	80	0.00
3	T	tert-Butanol	0.073	0.000#	100.0#	0#	-9.74#
4	T	MTBE	1.330	1.407	-5.8	78	0.00
5	T	Diisopropyl Ether (DIPE)	1.828	1.798	1.6	73	0.00
6	T	(ETBE) 2-ethoxy-2-methyl pr	2.110	2.174	-3.0	77	0.00
7	T	(TAME) tert-Amyl methyl eth	1.672	1.713	-2.5	76	0.00
8	I	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	73	0.00
9	S	Toluene-d8 (SU)	1.340	1.389	-3.7	76	0.00
10	I	Chlorobenzene-d5 (IS)	1.000	1.000	0.0	74	0.00
11	S	4-Bromofluorobenzene (SU)	0.677	0.717	-5.9	79	0.00
12	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-184
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-340

CRWQCB - L.A. REGION
WELL INVESTIGATION PROGRAM
QA/QC REPORT

PREPARED FOR ALTON GEOSCIENCE
PROJECT: 200368 TOSCO 4357
SAMPLED: 2/26/98

ATTENTION: GIL FRY

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338
9484 Chesapeake Dri., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

50255

CHAIN OF CUSTODY FORM

Quote No.: _____ Page: 1 of 1

Client Name: ALTON GEOSCIENCE
Address: 25A TECHNOLOGY DR.
City: IRVINE State: CA Zip: 92718
Tel: 753-0101 Fax.: 753-0111

P.O./Project Number: 200361 UNOCAL 4357
Project Name: 11280 NATIONAL BLVD LA
Project Manager:
Sampler(s) (signature): Mark Rudolis

Sample I.D.	Matrix	Date Sampled	Time	Preservation	Number of Containers	Type of Containers	8015 (Gas) ☒ 8020 (BTEX) ☒	MTBE (8020) ☒ 8015/8020/MTBE ☐	8015 (Diesel) ☐ fuel ☐ simulated fingerprint ☐ distillation	Oil & Grease - EPA 413.2	TRPH - EPA 418.1	EPA 8010 ☐ EPA 8010/8020 ☐	EPA 8270	Title 22 Metals EPA 6010/7000 ☐ +Cr VI ☐	EPA 8260 ☐ + Oxygenates ☐ + MTBE ☐ MTBE only ☐	Lead	pH	8260 (~~8021~~ OXYGENATES)	DISSOLVED METALS	ALK, SPEC. COND, PH, CL	NO3, SO4	TDS PHOSPHORUS		
MW-1	H_2O	2/26/98	9:19	HCL	9	HCL	X	X										X	X	X	X	X		
MW-2	↓	↓	10:22	↓	9	↓	↓	↓										X	X	X	X	X		
MW-3	↓	↓	10:55	↓	9	↓	↓	↓										X	X	X	X	X		
EQUIP. BLANK PROBE	↓	↓	N/A	↓	6	V	↓	↓										X						
EQUIP. BLANK PUMP	↓	↓	N/A	↓	6	V	↓	↓										X						
FIELD BLANKS	↓	↓	N/A	↓	6	V	↓	↓										X						
TRIP BLANKS	↓	↓	N/A	↓	6	V	↓	↓										X						
																		8021/8010/98						
																		confirmation		only				

Relinquished by: Mark Rudolis Date/Time: 2/26/98 12:10
Received by: D. McLaney 2/26/98 Date/Time: 12:10
Relinquished by: D. McLaney 2/26/98 Date/Time: 2:30 PM
Received by: Date/Time:
Relinquished by: Date/Time:
Received in Lab by: 2/26/98 Date/Time: 2:30 PM

Turnaround Time: (check one):
Same Day ___ 72 hours ___
24 Hours ___ 5 Days X
48 Hours X Standard ___

Sample Integrity:
Intact: X On Ice X

Remarks:

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on the chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of the invoice. Sample(s) will be disposed of after 30 days.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name: Del Mar Analytical

Address: 2852 Alton Avenue
Irvine, CA 92606

Telephone/FAX: (714) 261-1022 / (714) 261-1228

ELAP Certification No.: 1197 Expiration Date: May 31, 1998

Authorized Signature:
Name, Title (print) Scott C. Hoatson, Quality Assurance Officer

Signature, Date: Scott C. Hoatson 3/27/98

Client Name: Alton Geoscience

Project No.: 200368 TOSCO 4357

Date(s) Sampled: 2/26/98 To

Date(s) Received: 2/26/98 To

Date(s) Reported: 3/10/98 To

Chain of Custody received: Yes X No

Comments: All results reported with an asterisk (*) are estimated concentrations.

(RWQCB LabForm; Ver 12/94)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
EPA 8015/8020	7	0

Sample Condition: Acceptable

Inorganic Analyses	# of Samples	# of Samples Subcontracted
General Chemistry	3	0
Dissolved Metals	3	0

Sample Condition: Acceptable

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

PROJECT NO: 200368 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: **EPA 8015/8020** **REPORTING UNIT:** **µg/L**

	DATE ANALYZED	2/27/98	2/27/98	2/27/98	2/27/98
	DATE EXTRACTED	2/27/98	2/27/98	2/27/98	2/27/98
	LAB SAMPLE ID	Method Blank	HB02913	HB02914	HB02915
	SAMPLE ID	HB27152W	MW-1	MW-2	MW-3
	EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
	EXTRACTION METHOD	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1
COMPOUND	**MDL**				
Volatile Fuel Hydrocarbons C6-C12	12	< 12	< 12	< 12	**13***
Benzene	0.032	< 0.032	**0.18***	< 0.032	**0.12***
Toluene	0.031	< 0.031	< 0.031	< 0.031	**0.15***
Ethyl Benzene	0.025	< 0.025	< 0.025	< 0.025	< 0.025
o-Xylene	0.032	< 0.032	< 0.032	< 0.032	**0.35**
m,p-Xylenes	0.077	< 0.077	< 0.077	< 0.077	< 0.077
Methyl tertiary-Butyl Ether	0.48	< 0.48	< 0.48	< 0.48	< 0.48

SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
a,a,a-trifluorotoluene	100	80-120	97	92	98	82
4-Bromofluorobenzene	100	80-120	97	89	90	91

PROJECT NO: 200368 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: **EPA 8015/8020** **REPORTING UNIT:** **µg/L**

	DATE ANALYZED	2/28/98	2/28/98	2/28/98	2/28/98
	DATE EXTRACTED	2/28/98	2/28/98	2/28/98	2/28/98
	LAB SAMPLE ID	Method Blank	HB02916	HB02917	HB02918
	SAMPLE ID	HB28241W	Equip. Blank Probe	Equip. Blank Pump	Field Blanks
	EXTRACTION SOLVENT	n/a	n/a	n/a	n/a
	EXTRACTION METHOD	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1
COMPOUND	**MDL**				
Volatile Fuel Hydrocarbons C6-C12	12	< 12	< 12	< 12	< 12
Benzene	0.032	< 0.032	< 0.032	**0.038***	< 0.032
Toluene	0.031	< 0.031	**0.033***	**0.039***	**0.036***
Ethyl Benzene	0.025	< 0.025	< 0.025	< 0.025	< 0.025
o-Xylene	0.032	< 0.032	< 0.032	< 0.032	< 0.032
m,p-Xylenes	0.077	< 0.077	< 0.077	< 0.077	< 0.077
Methyl tertiary-Butyl Ether	0.48	< 0.48	**0.53***	< 0.48	**0.60***

SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
a,a,a-trifluorotoluene	100	80-120	85	85	88	86
4-Bromofluorobenzene	100	80-120	100	103	98	99

PROJECT NO: 200368 (RWQCB LabForm 10A; Ver12/94)

ANALYTICAL RESULT FOR ORGANICS

METHOD: **EPA 8015/8020** **REPORTING UNIT:** **µg/L**

		DATE ANALYZED	2/28/98			
		DATE EXTRACTED	2/28/98			
		LAB SAMPLE ID	HB02919			
		SAMPLE ID	Trip Blanks			
		EXTRACTION SOLVENT	n/a			
		EXTRACTION METHOD	5030			
		DILUTION FACTOR	1			
COMPOUND	**MDL**					
Volatile Fuel Hydrocarbons C6-C12	12	< 12				
Benzene	0.032	< 0.032				
Toluene	0.031	< 0.031				
Ethyl Benzene	0.025	< 0.025				
o-Xylene	0.032	< 0.032				
m,p-Xylenes	0.077	< 0.077				
Methyl tertiaty-Butyl Ether	0.48	< 0.48				
SURROGATE	**SPIKE CONC**	**ACCEPT LIMITS %**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**	**% RECOVERY**
a,a,a-trifluorotoluene	100	80-120	85			
4-Bromofluorobenzene	100	80-120	99			

Project Number: 200368 (RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS) MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 02/27/98
Batch Number: HB27152W
Lab Sample I.D.: HB02915
Analytical Method: EPA 8015/8020
Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	% MSD	RPD	MS/MSD % Limit	RPD Limit
Volatile Fuel Hydrocarbons	13	220	230	100	220	190	79	22	65-135	≤ 20
Benzene	0.12	20	17	84	20	17	85	0.86	65-135	≤ 20
Toluene	0.15	20	19	93	20	17	84	9.3	65-135	≤ 20
Ethylbenzene	0	20	18	91	20	18	89	2.0	65-135	≤ 20
Total Xylenes	0.35	60	58	97	60	55	91	5.9	65-135	≤ 20
Methyl tertiary-Butyl Ether	0	40	36	91	40	41	102	12	65-135	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 02/28/98
Supply Source: SUPELCO
Lot Number: LA 59070
Date of Source: 5/21/97
Analytical Method: EPA 8015/8020
Reporting Unit: µg/L
Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Volatile Fuel Hydrocarbons	220	193	88	80-120
Benzene	20	19	96	80-120
Toluene	20	19	94	80-120
Ethylbenzene	20	20	101	80-120
Total Xylenes	60	61	101	80-120
Methyl tertiary-Butyl Ether	40	44	111	80-120

Project Number: 200368 (RWQCB LabForm 10A; Ver12/94)

QA/QC REPORT

II. MATRIX SPIKE (MS) MATRIX SPIKE DUPLICATE (MSD)

Date Performed: 02/28/98
Batch Number: HB28241W
Lab Sample I.D.: HB02916

Analytical Method: EPA 8015/8020
Reporting Unit: µg/L

Analyte	Sample Result	Spike Conc	MS	% MS	Spike Conc (Dup)	MSD	% MSD	RPD	MS/MSD % Limit	RPD Limit
Volatile Fuel Hydrocarbons	2.2	220	230	104	220	240	108	4.2	65-135	≤ 20
Benzene	0	20	21	104	20	21	104	0.24	65-135	≤ 20
Toluene	0.033	20	21	104	20	21	105	0.11	65-135	≤ 20
Ethylbenzene	0	20	21	106	20	21	107	0.65	65-135	≤ 20
Total Xylenes	0	60	61	102	60	62	103	1.0	65-135	≤ 20
Methyl tertiary-Butyl Ether	0.53	40	39	97	40	40	98	1.3	65-135	≤ 20

III. LABORATORY QUALITY CONTROL CHECK SAMPLE (LCS)

Date Performed: 03/01/98
Supply Source: SUPELCO
Lot Number: LA 59070
Date of Source: 5/21/97

Analytical Method: EPA 8015/8020
Reporting Unit: µg/L
Lab LCS I.D.: LCS

Analyte	Spike Concentration	Result	% Recovery	Acceptance % Recovery Limit
Volatile Fuel Hydrocarbons	220	243	111	80-120
Benzene	20	20	101	80-120
Toluene	20	21	103	80-120
Ethylbenzene	20	21	107	80-120
Total Xylenes	60	62	104	80-120
Methyl tertiary-Butyl Ether	40	38	94	80-120

Calibration data for Sequence file: H:\DATA\GC15\I27.seq

Initial Calibration Date:	1/19/98	BTEX Sample File:	h:\data\gc15\btexjan2	Supply Source:	RESTEK
Created by:		TPH Sample File:	h:\data\gc15\tph-jan	Lot Number:	A009189
ICV Acquire Date:	2/27/98	BTEX ICV File:	h:\data\gc15\I27a002.rst	Standard Prep. Date:	01/01
Date Printed:	03/01/98	TPH ICV File:	h:\data\gc15\I27b003.rst		

INITIAL CALIBRATION — DAILY ICV CALIBRATION

MTBE (RT = 1.68 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
2	50	22452	0.970							
3	400	192799	0.982							
4	800	309378	0.819	(Ave. RF = 0.815)						
6	2000	644411	0.679	RPD = 19.38	0.892	400	432.9	9.5	166376	≤ 15%
7	4000	1252012	0.661							

BENZENE (RT = 2.53 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	3077	3.323							
2	25	36517	2.976							
3	200	286416	3.035	(Ave. RF = 3.010)						
4	400	538904	2.841	RPD = 6.33	3.136	200	208.4	4.2	292319	≤ 15%
5	600	817582	2.879							

CHLOROBENZENE (RT = 5.48 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2057	2.221							
2	25	31486	2.566							
3	200	270108	2.862	(Ave. RF = 2.610)						
4	400	507878	2.677	RPD = 9.26	2.964	200	227.2	14	276281	≤ 15%
5	600	773042	2.722							

1,2-DCB (RT = 8.78 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	1361	1.470							
2	25	20270	1.652							
3	200	171416	1.816	(Ave. RF = 1.723)						
4	400	345688	1.822	RPD = 9.39	1.885	200	218.9	9.4	175720	≤ 15%
5	600	526406	1.853							

1,3-DCB (RT = 8.33 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	1457	1.573							
2	25	25984	2.117							
3	200	215963	2.288	(Ave. RF = 2.029)						
4	400	401163	2.114	RPD = 13.28	2.359	200	232.6	16	219914	≤ 15%
5	600	582509	2.051							

1,4-DCB (RT = 8.43 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	1781	1.923							
2	25	30515	2.487							
3	200	270064	2.861	(Ave. RF = 2.607)						
4	400	529191	2.789	RPD = 16.20	2.933	200	225.0	13	273351	≤ 15%
5	600	844205	2.972							

ETHYLBENZENE (RT = 5.79 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2179	2.353							
2	25	28539	2.326							
3	200	231427	2.452	(Ave. RF = 2.342)						
4	400	434463	2.290	RPD = 2.87	2.589	200	221.1	11	241332	≤ 15%
5	600	649968	2.289							

TOLUENE (RT = 4.05 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2994	3.233							
2	25	33096	2.697							
3	200	262374	2.780	(Ave. RF = 2.793)						
4	400	495417	2.611	RPD = 9.09	2.880	200	206.2	3.1	268422	≤ 15%
5	600	751131	2.645							

XYLENE-PM (RT = 5.95 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	4.0	5150	2.781							
2	50	69651	2.838							
3	400	561363	2.974	(Ave. RF = 2.822)						
4	800	1049805	2.767	RPD = 3.23	3.119	400	442.1	11	581470	≤ 15%
5	1200	1562370	2.751							

XYLENE-O (RT = 6.41 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2307	2.491							
2	25	28528	2.325							
3	200	231742	2.455	(Ave. RF = 2.361)						
4	400	430852	2.271	RPD = 4.45	2.566	200	217.3	8.7	239169	≤ 15%
5	600	643400	2.265							

Total Petroleum Hydrocarbons

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	200	428786	2143.930							
2	1500	3127815	2085.210							
3	5000	10673944	2134.789	(Ave. RF = 2096.988)						
4	7500	15618580	2082.477	RPD = 2.05	1920.054	5000	4578.1	8.4	9600268	≤ 15%
5	14000	28539488	2038.535							

Calibration data for Sequence file: H:\DATA\GC24\y28.seq

Initial Calibration Date:	2/19/98	BTEX Sample File:	h:\data\gc24\btexfeb1	Supply Source:	RESTEK
Created by:		TPH Sample File:	h:\data\gc24\tphfeb	Lot Number:	A009189
ICV Acquire Date:	2/28/98	BTEX ICV File:	h:\data\gc24\y28a002.rst	Standard Prep. Date:	02/0
Date Printed:	03/02/98	TPH ICV File:	h:\data\gc24\y28b003.rst		

INITIAL CALIBRATION — DAILY ICV CALIBRATION

MTBE (RT = 1.76 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
2	50	17049	0.627							
3	400	170031	0.788							
4	800	315774	0.698	(Ave. RF = 0.743)						
6	2000	888187	0.828	RPD = 9.33	0.709	400	382.0	4.5	164338	≤ 15%
7	4000	1684411	0.737							

BENZENE (RT = 2.71 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	3285	3.021							
2	25	36921	2.738							
3	200	304384	2.691	(Ave. RF = 2.806)						
4	400	628041	2.926	RPD = 5.68	2.840	200	202.4	1.2	329224	≤ 15%
5	600	910540	2.654							

CHLOROBENZENE (RT = 5.35 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2576	2.369							
2	25	32593	2.417							
3	200	286732	2.535	(Ave. RF = 2.502)						
4	400	588538	2.742	RPD = 5.88	2.690	200	215.0	7.5	311868	≤ 15%
5	600	840302	2.450							

1,2-DCB (RT = 8.15 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2059	1.894							
2	25	19889	1.475							
3	200	206950	1.830	(Ave. RF = 1.759)						
4	400	399500	1.861	RPD = 9.64	1.895	200	215.4	7.7	219660	≤ 15%
5	600	595900	1.737							

1,3-DCB (RT = 7.68 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
3	200	455	0.004							
4	400	214	0.001							
5	600	702102	2.069	(Ave. RF = 0.684)	0.006	200	1.7	99	681	≤ 15%
				RPD = 172.57						

1,4-DCB (RT = 7.86 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2844	2.616							
2	25	38582	2.861							
3	200	303952	2.687	(Ave. RF = 2.696)						
4	400	605801	2.823	RPD = 5.60	2.893	200	214.6	7.3	335388	≤ 15%
5	600	855137	2.493							

ETHYLBENZENE (RT = 5.55 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2329	2.142							
2	25	31986	2.372							
3	200	249899	2.209	(Ave. RF = 2.222)						
4	400	494941	2.306	RPD = 5.31	2.379	200	214.1	7.0	275729	≤ 15%
5	600	714199	2.082							

TOLUENE (RT = 4.17 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2747	2.527							
2	25	34062	2.526							
3	200	277876	2.457	(Ave. RF = 2.525)						
4	400	577769	2.692	RPD = 4.08	2.617	200	207.3	3.6	303394	≤ 15%
5	600	831983	2.425							

XYLENE-MP (RT = 5.74 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	4.0	5889	2.708							
2	50	75346	2.793							
3	400	581261	2.570	(Ave. RF = 2.643)						
4	800	1168140	2.721	RPD = 5.56	2.717	400	411.2	2.8	629899	≤ 15%
5	1200	1662764	2.424							

XYLENE-O (RT = 6.13 Minutes)

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	2.0	2495	2.295							
2	25	29855	2.214							
3	200	246006	2.175	(Ave. RF = 2.233)						
4	400	507918	2.367	RPD = 4.48	2.348	200	210.3	5.2	272132	≤ 15%
5	600	724652	2.112							

Total Petroleum Hydrocarbons

Calibration Levels

Level	Amount	Area	Response		Daily RF	Amount	Result	% diff	Area	% diff Accep.limits
1	200	209289	1046.445							
2	1500	2117439	1411.626							
3	5000	6420211	1284.042	(Ave. RF = 1247.965)						
4	7500	9151398	1220.186	RPD = 10.63	1333.968	5000	5344.6	6.9	6669838	≤ 15%
5	15000	19162879	1277.525							

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01007
Samples Received: 01/26/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/26/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Site #4357

Date(s) Sampled:	1/26/98	To	
Date(s) Received:	1/26/98	To	
Date(s) Reported:	2/9/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: 76 Station Site #4357 (RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m REPORTING UNIT:ug/L

	DATE ANALYZED	2/4/98	2/4/98	2/4/98	2/4/98	2/4/98
	DATE EXTRACTED	2/4/98	2/4/98	2/4/98	2/4/98	2/4/98
	LAB SAMPLE I.D.	MB	98-01007-10	98-01007-26	98-01007-27	98-01007-TB
	CLIENT SAMPLE I.D.		MW1FB01	RIG04SW	MW1ER01	MW1TB01
	EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	INERT GAS
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.3	ND	ND	ND	ND	ND
Toluene	.3	ND	ND	ND	ND	ND
Ethyl Benzene	.3	ND	ND	ND	ND	ND
Methyl-t-butylether	5.0	ND	ND	ND	ND	ND
Total xylenes	.6	ND	ND	ND	ND	ND
TPH gas	50	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	94	96	90	86	92

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:BTEX

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V3
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	2940	9.19E+02	8.76E+02	4.36
Benzene	FID	minutes	2nd conc 6.4	5798	9.06E+02		
			3rd conc 16	14044	8.78E+02		
			4th conc 19.2	16329	8.50E+02		
			5th conc 32	26445	8.26F+02		
Compound 2		1 to 10	3.2	2452	7.66E+02	7.81E+02	2.74
Toluene	FID	minutes	6.4	5101	7.97E+02		
			16	12905	8.07E+02		
			19.2	15029	7.83E+02		
			32	24145	7.55E+02		
Compound k		1 to 10	1st conc 3.2	2361	7.38E+02	7.09E+02	10.44
Ethyl Benzene	FID	minutes	2nd conc 6.4	4860	7.59E+02		
			3rd conc 16	11892	7.43E+02		
			4th conc 19.2	13974	7.28E+02		
			5th conc 32	18509	5.78E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	6.4	12841	8.03E+02	8.37	15
Compound 2 Toluene	FID	1-10 min.	6.4	11678	7.30E+02	6.60	15
Compound k Ethyl Benzene	FID	1-10 min.	6.4	11191	6.99E+02	1.39	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:TPH gas

DATE PERFORMED: 1-13-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V3
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	1241	3.88E+02	3.46E+02	14.41
Methyl-t-butylether	FID	minutes	2nd conc 6.4	2415	3.77E+02		
			3rd conc 16	6028	3.77E+02		
			4th conc 19.2	5221	2.72E+02		
			5th conc 32	10168	3.18E+02		
Compound 2		1 to 10	3.2	6780	1.06E+03	9.73E+.02	8.62
Total xylenes	FID	minutes	6.4	13261	1.04E+03		
			16	31628	9.88E+02		
			19.2	35551	9.26E+02		
			32	22744	8.54E+02		
Compound k		1 to 10	1st conc 124.96	15375	7.50E+01	8.19E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	61680	8.60E+01		
			3rd conc 1562	169335	8.48E+01		
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Methyl-t-	FID	1-10 min.	6.4	5335	3.33E+02	3.72	15
Compound 2 Total	FID	1-10 min.	12.8	29459	9.21E+02	5.35	15
.							
.							
Compound k TPH gas	FID	1-10 min.	636.8	44000	7.04E+01	14.04	15

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-4-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: BTEX 1007-10/TPH OFW

LAB SAMPLE I.D.: 14FEB04/TPH; 15FEB04/BTEX UNIT: (Circle one) ug/L/TPH gas mg/kg/BTEX

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.3	16	14.77	92	16	14.09	88	5	80-120	10
Toluene	<.3	16	14.96	94	16	14.20	89	5	80-120	10
Ethyl Benzene	<.3	16	15.67	98	16	15.04	94	4	80-120	10
Methyl-t-butylether	<.13	16	16.16	100	16	16.42	102	2	80-120	10
Total xylenes	<.6	32	30.55	96	32	28.90	90	6	80-120	10
TPH gas	<50	636.8		102	636.8	611.33	96	6	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-4-98/TPH 2-5-98/BTEX ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: TPH 30FEB04/BTEX 04FEB05

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	13.92	87	85-115
Toluene	16	14.24	89	85-115
Ethyl Benzene	16	15.20	95	85-115
Methyl-t-butylether	16	14.56	91	85-115
Total xylenes	32	29.12	91	85-115
TPH gas	636.8	547.65	86	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Site #4357

Date(s) Sampled:	1/26/98	To	
Date(s) Received:	1/26/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: 76 Station Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
	DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
	LAB SAMPLE I.D.	MB	98-01007-17	98-01007-18	98-01007-19	98-01007-20
	CLIENT SAMPLE I.D.		MW1-45.4	MW1-50.0	MW1-55.0	MW1-60.4
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	.002	.002	.002	ND
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	95	86	95	90	86

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:BTEX

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	480	1.50E+02	1.75E+02	11.63
Benzene	FID	minutes	2nd conc 6.4	1046	1.63E+02		
			3rd conc 16	2826	1.77E+02		
			4th conc 19.2	3524	1.84E+02		
			5th conc 32	6523	2.04F+02		
Compound 2		1 to 10	3.2	541	1.69E+02	1.65E+02	8.08
Toluene	FID	minutes	6.4	941	1.47E+02		
			16	2566	1.60E+02		
			19.2	3174	1.65E+02		
			32	5879	1.84E+02		
Compound k		1 to 10	1st conc 3.2	347	1.08E+02	1.29E+02	12.18
Ethyl Benzene	FID	minutes	2nd conc 6.4	771	1.20E+02		
			3rd conc 16	2082	1.30E+02		
			4th conc 19.2	2631	1.37E+02		
			5th conc 32	4791	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	2805	1.75E+02	.10	15
Compound 2 Toluene	FID	1-10 min.	16	2524	1.58E+02	4.45	15
.							
.							
Compound k Ethyl Benzene	FID	1-10 min.	16	2098	1.31E+02	1.52	15

QA/QC REPORT

1. Calibration Standard

(A). Initial Calibration:TPH gas

DATE PERFORMED: 1-5-98 ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2 LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	185	5.78E+01	6.50E+01	10.39
Methyl-t-butylether	FID	minutes	2nd conc 6.4	372	5.81E+01		
			3rd conc 16	1086	6.79E+01		
			4th conc 19.2	1303	6.79E+01		
			5th conc 32	2342	7.32E+01		
Compound 2		1 to 10	3.2	947	1.48E+02	1.88E+.02	12.64
Total xylenes	FID	minutes	6.4	2380	1.86E+02		
			16	6331	1.98E+02		
			19.2	7797	2.03E+02		
			32	13204	2.06E+02		
Compound k		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Methyl-tr	FID	1-10 min.	16	8979	6.28E+01	3.33	15
Compound 2 Total	FID	1-10 min.	32	6457	2.02E+01	7.20	15
Compound k TPH gas	FID	1-10 min.	612.8	16634	2.71E+01	.91	15

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: BTEX 1007-7/TPH OFW

LAB SAMPLE I.D.: 13FEB05/TPH; 14FEB05/BTEX UNIT: (Circle one) ug/L/TPH gas mg/kg/BTEX

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.157	.150	96	.157	.154	98	2	80-120	10
Toluene	<.005	.157	.140	88	.157	.143	90	2	80-120	10
Ethyl Benzene	<.005	.157	.147	94	.157	.154	98	4	80-120	10
Methyl-t-butylether	<.02	.157	.156	100	.157	.158	101	1	80-120	10
Total xylenes	<.01	.313	.314	100	.313	.324	103	3	80-120	10
TPH gas	<50	612.8	618.93	101	612.8	563.78	92	9	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: TPH 32FEB04/BTEX 33FEB04

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L TPH gas mg/kg BTEX

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.157	.151	96	85-115
Toluene	.157	.157	100	85-115
Ethyl Benzene	.157	.165	105	85-115
Methyl-t-butylether	.157	.170	108	85-115
Total xylenes	.313	.350	112	85-115
TPH gas	612.8	686.34	112	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Site #4357

Date(s) Sampled:	1/26/98	To	
Date(s) Received:	1/26/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: 76 Station Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
	DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
	LAB SAMPLE I.D.	MB	98-01007-9	98-01007-11	98-01007-13	98-01007-15
	CLIENT SAMPLE I.D.		MW1-25.25	MW1-31.0	MW1-36	MW1-41.0
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	.001	ND	.002
Ethyl Benzene	.002	ND	ND	.001	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	95	90	106	98	92

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:BTEX

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	480	1.50E+02	1.75E+02	11.63
Benzene	FID	minutes	2nd conc 6.4	1046	1.63E+02		
			3rd conc 16	2826	1.77E+02		
			4th conc 19.2	3524	1.84E+02		
			5th conc 32	6523	2.04F+02		
Compound 2		1 to 10	3.2	541	1.69E+02	1.65E+02	8.08
Toluene	FID	minutes	6.4	941	1.47E+02		
			16	2566	1.60E+02		
			19.2	3174	1.65E+02		
			32	5879	1.84E+02		
ompound k		1 to 10	1st conc 3.2	347	1.08E+02	1.29E+02	12.18
Ethyl Benzene	FID	minutes	2nd conc 6.4	771	1.20E+02		
			3rd conc 16	2082	1.30E+02		
			4th conc 19.2	2631	1.37E+02		
			5th conc 32	4791	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	2805	1.75E+02	.10	15
Compound 2 Toluene	FID	1-10 min.	16	2524	1.58E+02	4.45	15
.							
.							
Compound k Ethyl Benzene	FID	1-10 min.	16	2098	1.31E+02	1.52	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	185	5.78E+01	6.50E+01	10.39
Methyl-t-butylether	FID	minutes	2nd conc 6.4	372	5.81E+01		
			3rd conc 16	1086	6.79E+01		
			4th conc 19.2	1303	6.79E+01		
			5th conc 32	2342	7.32E+01		
Compound 2		1 to 10	3.2	947	1.48E+02	1.88E+.02	12.64
Total xylenes	FID	minutes	6.4	2380	1.86E+02		
			16	6331	1.98E+02		
			19.2	7797	2.03E+02		
			32	13204	2.06E+02		
Compound k		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Methyl-tr	FID	1-10 min.	16	8979	6.28E+01	3.33	15
Compound 2 Total	FID	1-10 min.	32	6457	2.02E+01	7.20	15
Compound k TPH gas	FID	1-10 min.	612.8	16634	2.71E+01	.91	15

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: BTEX 1007-7/TPH OFW

LAB SAMPLE I.D.: 13FEB05/TPH; 14FEB05/BTEX UNIT: (Circle one) ug/L/TPH gas mg/kg/BTEX

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.157	.150	96	.157	.154	98	2	80-120	10
Toluene	<.005	.157	.140	88	.157	.143	90	2	80-120	10
Ethyl Benzene	<.005	.157	.147	94	.157	.154	98	4	80-120	10
Methyl-t-butylether	<.02	.157	.156	100	.157	.158	101	1	80-120	10
Total xylenes	<.01	.313	.314	100	.313	.324	103	3	80-120	10
TPH gas	<50	612.8	618.93	101	612.8	563.78	92	9	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: TPH 32FEB04/BTEX 33FEB04

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L TPH gas mg/kg BTEX

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.157	.151	96	85-115
Toluene	.157	.157	100	85-115
Ethyl Benzene	.157	.165	105	85-115
Methyl-t-butylether	.157	.170	108	85-115
Total xylenes	.313	.350	112	85-115
TPH gas	612.8	686.34	112	85-115

ACKNOWLEDGEMENTS

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Site #4357

Date(s) Sampled:	1/26/98	To	
Date(s) Received:	1/26/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: 76 Station Site #4357 (RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m REPORTING UNIT:mg/kg

	DATE ANALYZED	2/5/98	2/5/98	2/5/98	2/5/98	2/5/98
	DATE EXTRACTED	2/5/98	2/5/98	2/5/98	2/5/98	2/5/98
	LAB SAMPLE I.D.	MB	98-01007-1	98-01007-3	98-01007-5	98-01007-7
	CLIENT SAMPLE I.D.		MW1-4.75	MW1-10.75	MW1-16.0	MW1-20.0
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	.002	ND	ND	ND
Toluene	.002	ND	.004	.003	ND	.002
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	.38	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	95	76	88	78	85

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:BTEX

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	480	1.50E+02	1.75E+02	11.63
Benzene	FID	minutes	2nd conc 6.4	1046	1.63E+02		
			3rd conc 16	2826	1.77E+02		
			4th conc 19.2	3524	1.84E+02		
			5th conc 32	6523	2.04F+02		
Compound 2		1 to 10	3.2	541	1.69E+02	1.65E+02	8.08
Toluene	FID	minutes	6.4	941	1.47E+02		
			16	2566	1.60E+02		
			19.2	3174	1.65E+02		
			32	5879	1.84E+02		
Compound k		1 to 10	1st conc 3.2	347	1.08E+02	1.29E+02	12.18
Ethyl Benzene	FID	minutes	2nd conc 6.4	771	1.20E+02		
			3rd conc 16	2082	1.30E+02		
			4th conc 19.2	2631	1.37E+02		
			5th conc 32	4791	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	2805	1.75E+02	.10	15
Compound 2 Toluene	FID	1-10 min.	16	2524	1.58E+02	4.45	15
Compound k Ethyl Benzene	FID	1-10 min.	16	2098	1.31E+02	1.52	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:TPH gas

DATE PERFORMED: 1-5-98 ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V2 LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	185	5.78E+01	6.50E+01	10.39
Methyl-t-butylether	FID	minutes	2nd conc 6.4	372	5.81E+01		
			3rd conc 16	1086	6.79E+01		
			4th conc 19.2	1303	6.79E+01		
			5th conc 32	2342	7.32E+01		
Compound 2		1 to 10	3.2	947	1.48E+02	1.88E+.02	12.64
Total xylenes	FID	minutes	6.4	2380	1.86E+02		
			16	6331	1.98E+02		
			19.2	7797	2.03E+02		
			32	13204	2.06E+02		
Compound k		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Methyl-tr	FID	1-10 min.	16	8979	6.28E+01	3.33	15
Compound 2 Total	FID	1-10 min.	32	6457	2.02E+01	7.20	15
Compound k TPH gas	FID	1-10 min.	612.8	16634	2.71E+01	.91	15

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: BTEX 1007-7/TPH OFW

LAB SAMPLE I.D.: 13FEB05/TPH; 14FEB05/BTEX UNIT: (Circle one) ug/L/TPH gas mg/kg/BTEX

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.157	.150	96	.157	.154	98	2	80-120	10
Toluene	<.005	.157	.140	88	.157	.143	90	2	80-120	10
Ethyl Benzene	<.005	.157	.147	94	.157	.154	98	4	80-120	10
Methyl-t-butylether	<.02	.157	.156	100	.157	.158	101	1	80-120	10
Total xylenes	<.01	.313	.314	100	.313	.324	103	3	80-120	10
TPH gas	<50	612.8	618.93	101	612.8	563.78	92	9	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: TPH 32FEB04/BTEX 33FEB04

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L TPH gas mg/kg BTEX

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.157	.151	96	85-115
Toluene	.157	.157	100	85-115
Ethyl Benzene	.157	.165	105	85-115
Methyl-t-butylether	.157	.170	108	85-115
Total xylenes	.313	.350	112	85-115
TPH gas	612.8	686.34	112	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Site #4357

Date(s) Sampled:	1/26/98	To	
Date(s) Received:	1/26/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas plus MTBE	2	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: 76 Station Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/6/98	2/6/98	2/6/98		
		DATE EXTRACTED	2/6/98	2/6/98	2/6/98		
		LAB SAMPLE I.D.	MB	98-01007-22	98-01007-24		
		CLIENT SAMPLE I.D.		MW1-65.4	MW1-70.4		
		EXTRACTION SOLVENT		TEG	TEG		
		EXTRACTION METHOD	5030	5030	5030		
		DILUTION FACTOR	1	1	1		
COMPOUND		PQL					
Benzene		.002	ND	ND	ND		
Toluene		.002	ND	ND	.002		
Ethyl Benzene		.002	ND	ND	.002		
Methyl-t-butylether		.005	ND	ND	ND		
Total xylenes		.005	ND	ND	ND		
TPH gas		.5	ND	ND	ND		
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	95	90	95		

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:BTEX

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	480	1.50E+02	1.75E+02	11.63
Benzene	FID	minutes	2nd conc 6.4	1046	1.63E+02		
			3rd conc 16	2826	1.77E+02		
			4th conc 19.2	3524	1.84E+02		
			5th conc 32	6523	2.04F+02		
Compound 2		1 to 10	3.2	541	1.69E+02	1.65E+02	8.08
Toluene	FID	minutes	6.4	941	1.47E+02		
			16	2566	1.60E+02		
			19.2	3174	1.65E+02		
			32	5879	1.84E+02		
Compound k		1 to 10	1st conc 3.2	347	1.08E+02	1.29E+02	12.18
Ethyl Benzene	FID	minutes	2nd conc 6.4	771	1.20E+02		
			3rd conc 16	2082	1.30E+02		
			4th conc 19.2	2631	1.37E+02		
			5th conc 32	4791	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	2805	1.75E+02	.10	15
Compound 2 Toluene	FID	1-10 min.	16	2524	1.58E+02	4.45	15
.							
.							
Compound k Ethyl Benzene	FID	1-10 min.	16	2098	1.31E+02	1.52	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration:TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 3.2	185	5.78E+01	6.50E+01	10.39
Methyl-t-butylether	FID	minutes	2nd conc 6.4	372	5.81E+01		
			3rd conc 16	1086	6.79E+01		
			4th conc 19.2	1303	6.79E+01		
			5th conc 32	2342	7.32E+01		
Compound 2		1 to 10	3.2	947	1.48E+02	1.88E+.02	12.64
Total xylenes	FID	minutes	6.4	2380	1.86E+02		
			16	6331	1.98E+02		
			19.2	7797	2.03E+02		
			32	13204	2.06E+02		
Compound k		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Methyl-tr	FID	1-10 min.	16	8979	6.28E+01	3.33	15
Compound 2 Total	FID	1-10 min.	32	6457	2.02E+01	7.20	15
Compound k TPH gas	FID	1-10 min.	612.8	16634	2.71E+01	.91	15

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: BTEX 1007-7/TPH OFW

LAB SAMPLE I.D.: 13FEB05/TPH; 14FEB05/BTEX UNIT: (Circle one) ug/L/TPH gas mg/kg/BTEX

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.157	.150	96	.157	.154	98	2	80-120	10
Toluene	<.005	.157	.140	88	.157	.143	90	2	80-120	10
Ethyl Benzene	<.005	.157	.147	94	.157	.154	98	4	80-120	10
Methyl-t-butylether	<.02	.157	.156	100	.157	.158	101	1	80-120	10
Total xylenes	<.01	.313	.314	100	.313	.324	103	3	80-120	10
TPH gas	<50	612.8	618.93	101	612.8	563.78	92	9	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: TPH 32FEB04/BTEX 33FEB04

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L TPH gas mg/kg BTEX

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.157	.151	96	85-115
Toluene	.157	.157	100	85-115
Ethyl Benzene	.157	.165	105	85-115
Methyl-t-butylether	.157	.170	108	85-115
Total xylenes	.313	.350	112	85-115
TPH gas	612.8	686.34	112	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01039
Samples Received: 01/27/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/27/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	1/27/98	To	
Date(s) Received:	1/27/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	
		DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	
		LAB SAMPLE I.D.	MB	98-01039-2TB	98-01039-4	98-01039-11	
		CLIENT SAMPLE I.D.		MW1-TB02	MW1-FB02	MW1-ER02	
		EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		0.5	ND	ND	ND	ND	
Toluene		0.5	ND	ND	ND	ND	
Ethyl Benzene		0.5	ND	ND	ND	ND	
Methyl-t-butylether		2.0	ND	ND	ND	ND	
Total Xylenes		1.0	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	95	82	110	90	

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 12-24-97

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	387.2	1.21E+02	1.34E+02	7.47
Benzene	FID	1-10 min	2nd conc 6.4	812.8	1.27E+02		
		1-10 min	3rd conc 16	2176	1.36E+02		
		1-10 min	4th conc 19.2	2784	1.45E+02		
		1-10 min	5th conc 32	4544	1.42E+02		
Compound 2		1-10 min	3.2	403.2	1.26E+02	1.48E+02	9.90
Toluene	FID	1-10 min	6.4	896	1.40E+02		
.		1-10 min	16	1004.8	1.57E+02		
.		1-10 min	19.2	3052.8	1.59E+02		
.		1-10 min	32	5088	1.59E+02		
ompound k		1-10 min	1st conc 3.2	312	9.75E+01	1.16E+02	10.69
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	697.6	1.09E+02		
		1-10 min	3rd conc 16	2000	1.25E+02		
		1-10 min	4th conc 19.2	2380.8	1.24E+02		
		1-10 min	5th conc 32	4000	1.25E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	1994	1.26E+02	6.22	15
Compound 2 Toluene	FID	1-10 min	16	2227	1.37E+02	7.22	15
. Ethyl Benzene	FID	1-10 min	16	1594	9.96E+01	14.15	15
. P&M Xylenes	FID	1-10 min	32	5157	1.59E+02	1.22	15
Compound k O-Xylene	FID	1-10 min	16	2336	1.46E+02	0.77	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 10-8-97
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V4
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	502.4	1.57E+02	1.57E+02	11.11
P&M Xylenes	FID	1-10 min	2nd conc 6.4	1075.2	1.68E+02		
		1-10 min	3rd conc 16	2704	1.69E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	4064	1.27E+02		
Compound 2		1-10 min	3.2	406.4	1.27E+02	1.47E+02	9.47
O Xylenes	FID	1-10 min	6.4	889.6	1.39E+02		
.		1-10 min	16	2528	1.58E+02		
.		1-10 min	19.2	3052.8	1.59E+02		
.		1-10 min	32	4864	1.52E+02		
Compound k		1-10 min	1st conc 3.2	141.12	4.41E+01	4.71E+01	7.97
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	277.12	4.33E+01		
		1-10 min	3rd conc 16	769.6	4.81E+01		
		1-10 min	4th conc 19.2	1011.84	5.27E+01		
		1-10 min	5th conc 32	1513.6	4.73E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	6149	4.26E+01	9.51	15
Compound 2 TPH gas	FID	1-10 min	636.8	21370	3.42E+01	5.16	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 10-8-97

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V4

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 127.3	4841	3.95E+01	3.61E+01	8.91
TPH gas	FID	minutes	2nd conc 636.8	22710	3.57E+01		
			3rd conc 1592	52641	3.31E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-6-98

ANALYTICAL METHOD: 8020/8015m

BATCH #: 1065-7 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 10FEB06 (BTEX) 09FEB06 (TPH gas)

UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.05	16	16.01	100	16	15.57	97	3	80-120	10
Toluene	.09	16	14.86	92	16	15.34	95	3	80-120	10
Ethyl Benzene	<.3	16	13.05	82	16	13.86	87	6	80-120	10
MTBE	.25	16	17.45	108	16	16.67	103	5	80-120	10
P&M Xylene	.03	32	31.83	99	32	33.35	104	5	80-120	10
TPH gas	<50	636.8	579.49	91	636.8	604.96	95	4	80-120	10
O-Xylene	.07	16	16.02	100	16	16.03	100	0	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-6-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 38FEB06

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.36	96	85-115
Toluene	16	15.04	94	85-115
Ethyl Benzene	16	14.56	91	85-115
P&M Xylenes	32	32.32	101	85-115
O-Xylene	16	16.32	102	85-115
MTBE	16	15.52	97	85-115
TPH gas	636.8	611.33	96	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357
Date(s) Sampled:	1/27/98 To
Date(s) Received:	1/27/98 To
Date(s) Reported:	2/10/98

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

DATE ANALYZED		2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
DATE EXTRACTED		2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
LAB SAMPLE I.D.		MB	98-01039-6	98-01039-7	98-01039-9	98-01039-10
CLIENT SAMPLE I.D.			MW1-90.0	MW1-95.4	MW1-99.9	MW1-105.0
EXTRACTION SOLVENT			TEG	TEG	TEG	TEG
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	.001	ND	ND
Toluene	.002	ND	.002	ND	.001	.001
Ethyl Benzene	.002	ND	ND	.001	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	.002	.003	.002	.002
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	87	93	107	97	80

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3897	2.44E+02	7.95	15
Compound 2 Toluene	FID	1-10 min	16	3542	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2814	1.76E+02	13.17	15
. P&M Xylenes	FID	1-10 min	32	8066	2.52E+02	11.76	15
Compound k O-Xylene	FID	1-10 min	16	3744	2.34E+02	9.09	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	659.7	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	2nd conc 6.4	1395.2	2.18E+02		
		1-10 min	3rd conc 16	3776	2.36E+02		
		1-10 min	4th conc 19.2	4492.8	2.34E+02		
		1-10 min	5th conc 32	7488	2.34E+02		
Compound 2		1-10 min	3.2	652.8	2.04E+02	2.14E+02	4.71
O Xylenes	FID	1-10 min	6.4	1312	2.05E+02		
.		1-10 min	16	3600	2.25E+02		
.		1-10 min	19.2	4108.8	2.14E+02		
.		1-10 min	32	7168	2.24E+02		
Compound k		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	1143	7.14E+01	1.62	15
Compound 2 TPH gas	FID	1-10 min	636.8	18171	2.91E+01	2.20	15
.							
.							
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 636.8	16971	2.72E+01		
			3rd conc 1592	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020

BATCH #: 1039-6 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 09FEB06 (BTEX) 08FEB06 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.148	.151	102	.148	.159	107	5	80-120	10
Toluene	.002	.148	.143	95	.148	.154	102	7	80-120	10
Ethyl Benzene	<.005	.148	.157	105	.148	.161	108	3	80-120	10
MTBE	.002	.148	.139	92	.148	.149	99	7	80-120	10
P&M Xylene	.002	.297	.310	104	.297	.322	108	4	80-120	10
TPH gas	<50	636.8	579.49	91	636.8	604.96	95	4	80-120	10
O-Xylene	.001	.148	.150	101	.148	.153	103	2	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 23FEB06/22FEB06

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.148	.141	95	85-115
Toluene	.148	.139	94	85-115
Ethyl Benzene	.148	.157	106	85-115
P&M Xylenes	.297	.309	104	85-115
O-Xylene	.148	.157	104	85-115
MTBE	.148	.130	88	85-115
TPH gas	636.8	649.54	102	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	1/27/98	To	
Date(s) Received:	1/27/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/7/98	2/7/98	2/7/98	2/7/98	2/7/98
	DATE EXTRACTED	2/7/98	2/7/98	2/7/98	2/7/98	2/7/98
	LAB SAMPLE I.D.	MB	98-01039-16	98-01039-17	98-01039-18	98-01039-19
	CLIENT SAMPLE I.D.		MW1-130.25	MW1-131.0	MW1-135.5	MW1-145.25
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	.001	ND	ND
Toluene	.002	ND	.001	.002	.001	.001
Ethyl Benzene	.002	ND	ND	.001	.001	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	.004	.003	.003	.003
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	87	74	72	75	74

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3897	2.44E+02	7.95	15
Compound 2 Toluene	FID	1-10 min	16	3542	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2814	1.76E+02	13.17	15
. P&M Xylenes	FID	1-10 min	32	8066	2.52E+02	11.76	15
Compound k O-Xylene	FID	1-10 min	16	3744	2.34E+02	9.09	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	659.7	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	2nd conc 6.4	1395.2	2.18E+02		
		1-10 min	3rd conc 16	3776	2.36E+02		
		1-10 min	4th conc 19.2	4492.8	2.34E+02		
		1-10 min	5th conc 32	7488	2.34E+02		
Compound 2		1-10 min	3.2	652.8	2.04E+02	2.14E+02	4.71
O Xylenes	FID	1-10 min	6.4	1312	2.05E+02		
.		1-10 min	16	3600	2.25E+02		
.		1-10 min	19.2	4108.8	2.14E+02		
.		1-10 min	32	7168	2.24E+02		
Compound k		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	1143	7.14E+01	1.62	15
Compound 2 TPH gas	FID	1-10 min	636.8	18171	2.91E+01	2.20	15
.							
.							
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98 ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1 LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 636.8	16971	2.72E+01		
			3rd conc 1592	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020

BATCH #: 1039-6 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 09FEB06 (BTEX) 08FEB06 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.148	.151	102	.148	.159	107	5	80-120	10
Toluene	.002	.148	.143	95	.148	.154	102	7	80-120	10
Ethyl Benzene	<.005	.148	.157	105	.148	.161	108	3	80-120	10
MTBE	.002	.148	.139	92	.148	.149	99	7	80-120	10
P&M Xylene	.002	.297	.310	104	.297	.322	108	4	80-120	10
TPH gas	<50	636.8	579.49	91	636.8	604.96	95	4	80-120	10
O-Xylene	.001	.148	~~.156~~ .150	101	.148	.153	103	2	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 23FEB06/22FEB06

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.148	.141	95	85-115
Toluene	.148	.139	94	85-115
Ethyl Benzene	.148	.157	106	85-115
P&M Xylenes	.297	.309	104	85-115
O-Xylene	.148	.157	104	85-115
MTBE	.148	.130	88	85-115
TPH gas	636.8	649.54	102	85-115

ACKNOWLEDGEMENTS

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	1/27/98	To	
Date(s) Received:	1/27/98	To	
Date(s) Reported:	2/10/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/6/98	2/6/98	2/7/98	2/7/98	2/7/98
	DATE EXTRACTED	2/6/98	2/6/98	2/7/98	2/7/98	2/7/98
	LAB SAMPLE I.D.	MB	98-01039-12	98-01039-13	98-01039-14	98-01039-15
	CLIENT SAMPLE I.D.		MW1-110.0	MW1-115.0	MW1-120.0	MW1-125.0
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	.001	ND	ND	ND
Toluene	.002	ND	ND	ND	ND	.001
Ethyl Benzene	.002	ND	ND	ND	.001	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	.003	.002	.004	.003
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	87	111	97	84	83

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
ompound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3897	2.44E+02	7.95	15
Compound 2 Toluene	FID	1-10 min	16	3542	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2814	1.76E+02	13.17	15
. P&M Xylenes	FID	1-10 min	32	8066	2.52E+02	11.76	15
Compound k O-Xylene	FID	1-10 min	16	3744	2.34E+02	9.09	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	659.7	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	2nd conc 6.4	1395.2	2.18E+02		
		1-10 min	3rd conc 16	3776	2.36E+02		
		1-10 min	4th conc 19.2	4492.8	2.34E+02		
		1-10 min	5th conc 32	7488	2.34E+02		
Compound 2		1-10 min	3.2	652.8	2.04E+02	2.14E+02	4.71
O Xylenes	FID	1-10 min	6.4	1312	2.05E+02		
.		1-10 min	16	3600	2.25E+02		
.		1-10 min	19.2	4108.8	2.14E+02		
.		1-10 min	32	7168	2.24E+02		
Compound k		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	1143	7.14E+01	1.62	15
Compound 2 TPH gas	FID	1-10 min	636.8	18171	2.91E+01	2.20	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 636.8	16971	2.72E+01		
			3rd conc 1592	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020

BATCH #: 1039-6 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 09FEB06 (BTEX) 08FEB06 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.148	.151	102	.148	.159	107	5	80-120	10
Toluene	.002	.148	.143	95	.148	.154	102	7	80-120	10
Ethyl Benzene	<.005	.148	.157	105	.148	.161	108	3	80-120	10
MTBE	.002	.148	.139	92	.148	.149	99	7	80-120	10
P&M Xylene	.002	.297	.310	104	.297	.322	108	4	80-120	10
TPH gas	<50	636.8	579.49	91	636.8	604.96	95	4	80-120	10
O-Xylene	.001	.148	~~.156~~ .150	101	.148	.153	103	2	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 23FEB06/22FEB06

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.148	.141	95	85-115
Toluene	.148	.139	94	85-115
Ethyl Benzene	.148	.157	106	85-115
P&M Xylenes	.297	.309	104	85-115
O-Xylene	.148	.157	104	85-115
MTBE	.148	.130	88	85-115
TPH gas	636.8	649.54	102	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357
Date(s) Sampled:	1/27/98 To
Date(s) Received:	1/27/98 To
Date(s) Reported:	2/10/98

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	
		DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	
		LAB SAMPLE I.D.	MB	98-01039-1	98-01039-3	98-01039-5	
		CLIENT SAMPLE I.D.		MW1-75.0	MW1-80.3	MW1-85.0	
		EXTRACTION SOLVENT		TEG	TEG	TEG	
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		.002	ND	.001	ND	.002	
Toluene		.002	ND	.003	.002	.002	
Ethyl Benzene		.002	ND	.001	.001	ND	
Methyl-t-butylether		.005	ND	ND	ND	ND	
Total Xylenes		.005	ND	.004	.003	.003	
TPH gas		.5	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	82	82	88	75	

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	659.2	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3935	2.46E+02	9.01	15
Compound 2 Toluene	FID	1-10 min	16	3610	2.26E+02	3.77	15
. Ethyl Benzene	FID	1-10 min	16	2798	1.75E+02	12.53	15
. P&M Xylenes	FID	1-10 min	32	8096	2.53E+02	12.18	15
Compound k O-Xylene	FID	1-10 min	16	3648	2.28E+02	6.29	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	659.2	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	2nd conc 6.4	1395.2	2.18E+02		
		1-10 min	3rd conc 16	3776	2.36E+02		
		1-10 min	4th conc 19.2	4492.8	2.34E+02		
		1-10 min	5th conc 32	7488	2.34E+02		
Compound 2		1-10 min	3.2	652.8	2.04E+02	2.14E+02	4.71
O Xylenes	FID	1-10 min	6.4	1312	2.05E+02		
.		1-10 min	16	3600	2.25E+02		
.		1-10 min	19.2	4108.8	2.14E+02		
.		1-10 min	32	7168	2.24E+02		
Compound k		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	1076	6.73E+01	7.39	15
Compound 2 TPH gas	FID	1-10 min	636.8	16158	2.59E+01	9.12	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 636.8	16971	2.72E+01		
			3rd conc 1592	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020

BATCH #: 967-7 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 28FEB05 (BTEX) 27FEB05 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.148	.154	102	.148	.160	106	4	80-120	10
Toluene	.001	.148	.149	100	.148	.146	98	2	80-120	10
Ethyl Benzene	<.005	.148	.160	108	.148	.164	110	2	80-120	10
MTBE	<.02	.148	.140	94	.148	.143	97	3	80-120	10
P&M Xylene	.002	.297	.318	106	.297	.325	109	2	80-120	10
TPH gas	<50	636.8	662.27	104	636.8	649.53	102	2	80-120	10
O-Xylene	.001	.148	.156	105	.148	.163	110	5	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-5-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 09FEB06/08FEB06

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.148	.161	109	85-115
Toluene	.148	.154	104	85-115
Ethyl Benzene	.148	.167	113	85-115
P&M Xylenes	.297	.333	112	85-115
O-Xylene	.148	.157	106	85-115
MTBE	.148	.138	93	85-115
TPH gas	636.8	579.49	91	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01065
Samples Received: 01/28/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/28/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	1/28/98	To	
Date(s) Received:	1/28/98	To	
Date(s) Reported:	2/12/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
		DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
		LAB SAMPLE I.D.	98-01065-3	98-01065-4	98-01065-5	98-01065-6	MB
		CLIENT SAMPLE I.D.	HB05-5.0	HB05-10.0	HB6-5.0	HB6-10.0	
		EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
		EXTRACTION METHOD	5030	5030	5030	5030	5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND		PQL					
Benzene		0.002	ND	ND	ND	ND	ND
Toluene		0.002	ND	0.002	0.003	0.003	ND
Ethyl Benzene		0.002	ND	0.001	ND	0.001	ND
Methyl-t-butylether		0.005	ND	ND	ND	ND	ND
Total Xylenes		0.005	ND	ND	ND	ND	ND
TPH gas		0.5	ND	ND	ND	ND	ND
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	90	104	96	104	100

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 5030/8020/8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.80 min	1st conc 3.2	480	1.50E+02	1.75E+02	11.63
Benzene	FID	1.80 min	2nd conc 6.4	1046	1.63E+02		
.		1.80 min	3rd conc 16	2826	1.77E+02		
.		1.80 min	4th conc 19.2	3524	1.84E+02		
.		1.81 min	5th conc 32	6523	2.04E+02		
Compound 2		3.25 min	3.2	541	1.69E+02	1.65E+02	8.08
Toluene	FID	3.25 min	6.4	941	1.47E+02		
		3.24 min	16.0	2566	1.60E+02		
		3.25 min	19.2	3174	1.65E+02		
		3.27 min	32.0	5879	1.84E+02		
Compound k		5.28 min	1st conc 3.2	347	1.08E+02	1.29E+02	12.18
Ethyl Benzene	FID	5.28 min	2nd conc 6.4	771	1.20E+02		
		5.27 min	3rd conc 16	2082	1.30E+02		
		5.28 min	4th conc 19.2	2631	1.37E+02		
		5.28 min	5th conc 32	4791	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.80 min	16	2990	1.87E+02	6.49	15
Compound 2 Toluene	FID	3.24 min	16	2596	1.62E+02	1.73	15
Ethyl Benzene	FID	5.25 min	16	2284	1.40E+02	8.11	15
P&M Xylenes	FID	5.40 min	32	6982	2.16E+02	14.96	15
O-Xylene	FID	5.73 min	16	3150	1.98E+02	13.40	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED:	1-23-98	ANALYTICAL METHOD:	5030/8020/8015m
STANDARD SUPPLY SOURCE:	EM Science	DATE OF SOURCE:	12-15-97
INSTRUMENT I.D.:	GC-V2	LOT NUMBER:	A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.43 min	1st conc 3.2	947	1.48E+02	1.88E+02	12.64
P&M Xylenes	FID	5.43 min	2nd conc 6.4	2380	1.86E+02		
		5.41 min	3rd conc 16	6331	1.98E+02		
		5.44 min	4th conc 19.2	7797	2.03E+02		
		5.44 min	5th conc 32	13204	2.06E+02		
Compound 2		5.76 min	3.2	501	1.57E+02	1.75E+02	10.04
O-Xylene	FID	5.76 min	6.4	994	1.55E+02		
		5.75 min	16	2928	1.83E+02		
		5.77 min	19.2	3656	1.90E+02		
		5.76 min	32	6059	1.89E+02		
Compound k		0.85 min	1st conc 3.2	185	5.78E+01	6.50E+01	10.39
MTBE	FID	0.85 min	2nd conc 6.4	372	5.81E+01		
.		0.85 min	3rd conc 16	1086	6.79E+01		
.		0.85 min	4th conc 19.2	1303	6.79E+01		
.		0.85 min	5th conc 32	2342	7.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.84 min	16	1161	7.26E+01	11.68	15
Compound 2 TPH gas	FID	1-10 min	612.8	16055	2.62E+01	2.57	15
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	1-10 min	2nd conc 624.8	15889	2.54E+01		
		1-10 min	3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-6-98

ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1065-3 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 19FEB06 (BTEX) 25FEB06 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.002	.161	.161	100	.161	.161	100	0	80-120	10
Toluene	<.002	.161	.158	98	.161	.158	98	0	80-120	10
Ethyl Benzene	<.002	.161	.167	104	.161	.163	101	2	80-120	10
P&M Xylenes	.003	.323	.360	111	.323	.354	109	2	80-120	10
O-Xylenes	.002	.161	.190	116	.161	.184	113	3	80-120	10
TPH gas	<50	612.8	594.4	97	612.8	606.7	99	2	85-115	10
Methyl-t-butylether	<.005	.161	.163	101	.161	.165	102	1	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-6-98

ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: Chem Science/Texaco

LAB LCS I.D.: 12FEB06

LOT NUMBER: 195-5313/VO-1224

DATE OF SOURCE: 1-26-98/3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.36	96	85-115
Toluene	16	16.00	100	85-115
Ethyl Benzene	16	16.87	105	85-115
P&M Xylenes	32	35.91	112	85-115
O-Xylenes	16	17.28	108	85-115
TPH gas	612.8	686.3	112	85-115
Methyl-t-butylether	16	17.21	108	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	1/28/98	To	
Date(s) Received:	1/28/98	To	
Date(s) Reported:	2/12/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
		DATE EXTRACTED	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
		LAB SAMPLE I.D.	98-01065-1	98-01065-2	98-01065-7	98-01065-TB	MB
		CLIENT SAMPLE I.D.	4357SW	HB05-FB03	HB06-ER03	HB05-TB03	
		EXTRACTION SOLVENT					
		EXTRACTION METHOD	5030	5030	5030	5030	5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND		POL					
Benzene		0.5	ND	ND	ND	ND	ND
Toluene		0.5	ND	ND	ND	ND	ND
Ethyl Benzene		0.5	ND	ND	ND	ND	ND
Methyl-t-butylether		2	0.42	ND	ND	ND	ND
Total Xylenes		1	ND	ND	ND	ND	ND
TPH gas		50	ND	ND	ND	ND	ND
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	96	91	95	71	87

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 12-24-97

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V4

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		3.03 min	1st conc 3.2	388	1.21E+02	1.34E+02	7.47
Benzene	FID	3.03 min	2nd conc 6.4	812	1.27E+02		
.		3.00 min	3rd conc 16	2178	1.36E+02		
.		3.07 min	4th conc 19.2	2779	1.45E+02		
.		3.03 min	5th conc 32	4535	1.42E+02		
Compound 2		5.05 min	3.2	404.8	1.26E+02	1.48E+02	9.90
Toluene	FID	5.05 min	6.4	894	1.40E+02		
		5.03 min	16.0	2509	1.57E+02		
		5.07 min	19.2	3050	1.59E+02		
		5.07 min	32.0	5090	1.59E+02		
Compound k		6.50 min	1st conc 3.2	312	9.57E+02	1.16E+02	10.69
Ethyl Benzene	FID	6.52 min	2nd conc 6.4	696	1.09E+02		
		6.50 min	3rd conc 16	1998	1.25E+02		
		6.52 min	4th conc 19.2	2380	1.24E+02		
		6.52 min	5th conc 32	3994	1.25E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	3.03 min	16	2132	1.33E+02	0.73	15
Compound 2 Toluene	FID	5.03 min	16	2250	1.41E+02	5.07	15
Ethyl Benzene	FID	6.48 min	16	1604	1.00E+02	13.56	15
MTBE	FID	2.13 min	16	724	4.53E+01	3.94	15
Compound k P&M Xylene	FID	6.62 min	32	5113	1.60E+02	1.74	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 12-24-97

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V4

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.13 min	1st conc 3.2	141	4.41E+01	4.71E+01	7.97
Methyl-t-butylether	FID	2.15 min	2nd conc 6.4	277	4.33E+01		
		2.13 min	3rd conc 16	770	4.81E+01		
		2.15 min	4th conc 19.2	1012	5.27E+01		
		2.13 min	5th conc 32	1515	4.73E+01		
Compound 2		6.63 min	3.2	1006	1.57E+02	1.57E+02	11.11
P&M Xylenes	FID	6.63 min	6.4	2155	1.68E+02		
		6.63 min	16	5397	1.69E+02		
		6.65 min	19.2	6301	1.64E+02		
		6.61 min	32	8125	1.27E+02		
Compound k		6.92 min	1st conc 3.2	405	1.27E+02	1.47E+02	9.47
O-Xylene	FID	6.92 min	2nd conc 6.4	889	1.39E+02		
.		6.92 min	3rd conc 16	2532	1.58E+02		
.		6.93 min	4th conc 19.2	3051	1.59E+02		
.		6.92 min	5th conc 32	4858	1.52E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylenes	FID	6.90 min	16	2360	1.48E+02	0.42	15
Compound 2 TPH gas	FID	1-10 min	636.8	2056	3.29E+01	8.75	15
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 10-8-97
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V4
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 127	4841	3.95E+01	3.61E+01	8.91
TPH gas	FID	1-10 min	2nd conc 637	22710	3.57E+01		
		1-10 min	3rd conc 1592	52641	3.31E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-6-98 ANALYTICAL METHOD: 8015m

BATCH #: 1065-7

LAB SAMPLE I.D.: 15FEB06/09FEB06 UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	0.05	16.0	16.01	100	16.0	15.57	97	2.8	80-120	10
Toluene	0.09	16.0	14.86	92	16.0	15.34	95	3.2	80-120	10
Ethyl Benzene	<.5	16.0	13.05	82	16.0	13.86	87	6.0	80-120	10
Methyl-t-butylether	0.25	16.0	17.45	108	16.0	16.67	103	4.7	80-120	10
P&M Xylenes	0.03	32.0	31.83	99	32.0	33.35	104	4.7	80-120	10
O-Xylenes	0.07	16.0	16.02	100	16.0	16.03	100	0.1	80-120	10
TPH gas	<50	636.8	580.4	91	636.8	603.3	95	6.5	85-115	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-7-98 ANALYTICAL METHOD: 8015m

SUPPLY SOURCE: EM Science (BTEX)/Texaco (TPH gas) LAB LCS I.D.: 38FEB06 (BTEX)/39FEB06 (TPH gas)

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16.0	15.28	96	85-115
Toluene	16.0	15.14	94	85-115
Ethyl Benzene	16.0	14.48	91	85-115
Methyl-t-butylether	16.0	15.59	97	85-115
P&M Xylenes	32.0	32.41	101	85-115
O-Xylenes	16.0	16.33	102	85-115
TPH gas	636.8	608.58	96	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01115
Samples Received: 01/29/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/29/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	1/29/98	To	
Date(s) Received:	1/29/98	To	
Date(s) Reported:	2/17/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	2	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/11/98	2/11/98	2/10/98		
		DATE EXTRACTED	2/11/98	2/11/98	2/10/98		
		LAB SAMPLE I.D.	98-01115-4	98-01115-5	MB		
		CLIENT SAMPLE I.D.	HB13-10.0	HB13-5.0			
		EXTRACTION SOLVENT	TEG	TEG			
		EXTRACTION METHOD	5030	5030	5030		
		DILUTION FACTOR	1	1	1		
COMPOUND		PQL					
Benzene		0.002	ND	ND	ND		
Toluene		0.002	ND	ND	ND		
Ethyl Benzene		0.002	ND	0.0013	ND		
Methyl-t-butylether		0.005	ND	ND	ND		
Total Xylenes		0.005	ND	ND	ND		
TPH gas		0.5	ND	0.68	ND		
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	124	100	86		

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.66 min	1st conc 3.2	697	2.18E+02	2.26E+02	5.88
Benzene	FID	2.66 min	2nd conc 6.4	1328	2.08E+02		
		2.65 min	3rd conc 16	3699	2.31E+02		
		2.65 min	4th conc 19.2	4408	2.30E+02		
		2.65 min	5th conc 32	7744	2.42E+02		
Compound 2		4.37 min	3.2	732	2.29E+02	2.17E+02	3.75
Toluene	FID	4.37 min	6.4	1320	2.06E+02		
.		4.37 min	16	3514	2.20E+02		
.		4.35 min	19.2	4121	2.15E+02		
.		4.36 min	32	6972	2.18E+02		
ompound k		5.94 min	1st conc 3.2	439	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	5.93 min	2nd conc 6.4	924	1.44E+02		
		5.95 min	3rd conc 16	2631	1.64E+02		
		5.93 min	4th conc 19.2	3149	1.64E+02		
		5.94 min	5th conc 32	5345	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.65 min.	16	3941	2.46E+02	9.17	15
Compound 2 Toluene	FID	4.35 min	16	3602	2.25E+02	3.54	15
. Ethyl Benzene	FID	5.93 min	16	2829	1.77E+02	13.77	15
. MTBE	FID	1.42 min	16	1236	7.73E+01	6.39	15
Compound k P&M Xylenes	FID	6.07 min	32	7836	2.45E+02	8.57	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.43 min	1st conc 3.3	210	6.56E+01	7.26E+01	7.32
MTBE	FID	1.43 min	2nd conc 6.6	446	6.97E+01		
		1.43 min	3rd conc 16.5	1252	7.83E+01		
		1.43 min	4th conc 19.8	1383	7.20E+01		
		1.43 min	5th conc 33.0	2479	7.75E+01		
Compound 2		5.94 min	3.2	1318	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	6.07 min	6.4	2785	2.18E+02		
.		6.08 min	16	7553	2.36E+02		
.		6.06 min	19.2	8974	2.34E+02		
.		6.07 min	32	15004	2.34E+02		
Compound k		6.39 min	1st conc 3.2	576	2.04E+02	2.14E+02	4.71
O-Xylene	FID	6.38 min	2nd conc 6.4	1311	2.05E+02		
		6.39 min	3rd conc 16	3604	2.25E+02		
		6.37 min	4th conc 19.2	4118	2.14E+02		
		6.38 min	5th conc 32	7157	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	6.37 min.	16	3887	2.43E+02	13.31	15
Compound 2 TPH gas	FID	1-10 min	636.8	16434	2.63E+01	7.57	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 125	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 625	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-10-98 ANALYTICAL METHOD: 8015m

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 11FEB10 (BTEX) 11FEB10 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	0.161	0.175	109	0.161	0.173	108	1	80-120	10
Toluene	<0.002	0.161	0.161	100	0.161	0.163	101	1	80-120	10
Ethyl Benzene	<0.002	0.161	0.178	110	0.161	0.177	110	1	80-120	10
MTBE	<0.005	0.161	0.162	100	0.161	0.165	102	2	80-120	10
P&M Xylene	0.002	0.322	0.320	105	0.322	0.338	104	1	80-120	10
O-Xylene	<0.005	0.161	0.161	100	0.161	0.163	101	1	80-120	10
TPH gas	<0.5	636.8	594.3	94	636.8	592.1	93	1	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-11-98 ANALYTICAL METHOD: 8015m

SUPPLY SOURCE: Chem Service/Texaco LAB LCS I.D.: 36FEB10/37FEB10

LOT NUMBER: 195-5373/VO-4-1224

DATE OF SOURCE: 1-26-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	17.4	109	85-115
Toluene	16	16.6	104	85-115
Ethyl Benzene	16	18.3	114	85-115
MTBE	16	17.0	106	85-115
P&M Xylenes	32	34.7	109	85-115
O-Xylene	16	18.2	113	85-115
TPH gas	636.8	587.6	92	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	1/29/98	To	
Date(s) Received:	1/29/98	To	
Date(s) Reported:	2/17/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
	DATE EXTRACTED	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
	LAB SAMPLE I.D.	98-01115-1	98-01115-2	98-01115-3	98-01115-6	MB
	CLIENT SAMPLE I.D.	HB14-5.0	HB14-10.0	HB13-5.0	HB11-10.0	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	POL					
Benzene	0.002	.0012	ND	ND	ND	ND
Toluene	0.002	ND	ND	ND	ND	ND
Ethyl Benzene	0.002	ND	ND	0.0014	0.0023	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	101	94	74	97	86

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD:8020/8015m
*Revision

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/19/98	2/19/98	2/19/98	2/20/98	2/19/98
	DATE EXTRACTED	2/19/98	2/19/98	2/19/98	2/20/98	2/20/98
	LAB SAMPLE I.D.	MB	98-01545-2	98-01545-3	98-01545-4	98-01545-5
	CLIENT SAMPLE I.D.		HB8-5.0	HB8-10.0	HB7-5.0	HB7-10.0
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	.0017	ND	ND
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	99	102	87	114

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3948	2.47E+02	9.37	15
Compound 2 Toluene	FID	1-10 min	16	3540	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2769	1.73E+02	11.36	15
. MTBE	FID	1-10 min	16	1194	7.46E+02	2.77	15
Compound k P&M Xylenes	FID	1-10 min	32	7884	2.46E+02	9.24	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.66 min	1st conc 3.2	697	2.18E+02	2.26E+02	5.88
Benzene	FID	2.66 min	2nd conc 6.4	1328	2.08E+02		
		2.65 min	3rd conc 16	3699	2.31E+02		
		2.65 min	4th conc 19.2	4408	2.30E+02		
		2.65 min	5th conc 32	7744	2.42E+02		
Compound 2		4.37 min	3.2	732	2.29E+02	2.17E+02	3.75
Toluene	FID	4.37 min	6.4	1320	2.06E+02		
.		4.37 min	16	3514	2.20E+02		
.		4.35 min	19.2	4121	2.15E+02		
.		4.36 min	32	6972	2.18E+02		
Compound k		5.94 min	1st conc 3.2	439	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	5.93 min	2nd conc 6.4	924	1.44E+02		
		5.95 min	3rd conc 16	2631	1.64E+02		
		5.93 min	4th conc 19.2	3149	1.64E+02		
		5.94 min	5th conc 32	5345	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.67 min.	16	4005	2.50E+02	10.95	15
Compound 2 Toluene	FID	4.37 min	16	3683	2.30E+02	5.87	15
. Ethyl Benzene	FID	5.95 min	16	2822	1.76E+02	13.49	15
. MTBE	FID	1.43 min	16	1237	7.73E+01	6.47	15
Compound k P&M Xylenes	FID	6.08 min	32	872	2.52E+02	11.84	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V1
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.43 min	1st conc 3.3	210	6.56E+01	7.26E+01	7.32
MTBE	FID	1.43 min	2nd conc 6.6	446	6.97E+01		
		1.43 min	3rd conc 16.5	1252	7.83E+01		
		1.43 min	4th conc 19.8	1383	7.20E+01		
		1.43 min	5th conc 33.0	2479	7.75E+01		
Compound 2		5.94 min	3.2	1318	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	6.07 min	6.4	2785	2.18E+02		
.		6.08 min	16	7553	2.36E+02		
.		6.06 min	19.2	8974	2.34E+02		
.		6.07 min	32	15004	2.34E+02		
Compound k		6.39 min	1st conc 3.2	576	2.04E+02	2.14E+02	4.71
O-Xylene	FID	6.38 min	2nd conc 6.4	1311	2.05E+02		
		6.39 min	3rd conc 16	3604	2.25E+02		
		6.37 min	4th conc 19.2	4118	2.14E+02		
		6.38 min	5th conc 32	7157	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	6.39 min.	16	3753	2.35E+01	9.41	15
Compound 2 TPH gas	FID	1-10 min	636.8	16543	2.65E+01	6.95	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 125	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 625	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-10-98 ANALYTICAL METHOD: 8015m

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 11FEB10 (BTEX) 11FEB10 (TPH gas) UNIT: (Circle one) ug/kg (BTEX) ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	0.161	0.175	109	0.161	0.173	108	1	80-120	10
Toluene	<0.002	0.161	0.161	100	0.161	0.163	101	1	80-120	10
Ethyl Benzene	<0.002	0.161	0.178	110	0.161	0.177	110	1	80-120	10
MTBE	<0.005	0.161	0.162	100	0.161	0.165	102	2	80-120	10
P&M Xylene	0.002	0.322	0.320	105	0.322	0.338	104	1	80-120	10
O-Xylene	<0.005	0.161	0.161	100	0.161	0.163	101	1	80-120	10
TPH gas	<0.5	636.8	598.6	94	636.8	592.2	93	1	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-11-98 ANALYTICAL METHOD: 8015m

SUPPLY SOURCE: Chem Service/Texaco LAB LCS I.D.: 36FEB10/37FEB10

LOT NUMBER: 195-5373/VO-4-1224

DATE OF SOURCE: 1-26-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	17.4	109	85-115
Toluene	16	16.6	104	85-115
Ethyl Benzene	16	18.3	114	85-115
MTBE	16	17.0	106	85-115
P&M Xylenes	32	34.7	108	85-115
O-Xylene	16	18.2	114	85-115
TPH gas	636.8	587.6	92	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01116
Samples Received: 01/29/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/29/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	1/29/98	To	
Date(s) Received:	1/29/98	To	
Date(s) Reported:	2/17/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/10/98	2/10/98	2/10/98	2/10/98	
		DATE EXTRACTED	2/10/98	2/10/98	2/10/98	2/10/98	
		LAB SAMPLE I.D.	98-01116-1	98-01116-2	98-01116-TB	MB	
		CLIENT SAMPLE I.D.	B8-FB04	B8-ER04	B8-TB04		
		EXTRACTION SOLVENT					
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		0.5	ND	ND	ND	ND	
Toluene		0.5	ND	0.1	ND	ND	
Ethyl Benzene		0.5	ND	ND	ND	ND	
Methyl-t-butylether		2	ND	ND	ND	ND	
Total Xylenes		1	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	74	70	76	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-10-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Chem Service
DATE OF SOURCE: 1-26-98
INSTRUMENT I.D.: GC-V4
LOT NUMBER: 195-53B

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		3.08 min	1st conc 3.2	386	1.21E+03	1.16E+03	4.51
Benzene	FID	3.08 min	2nd conc 6.4	6852	1.07E+03		
		3.08 min	3rd conc 16	1854	1.16E+03		
		3.05 min	4th conc 19.2	2255	1.17E+03		
		3.02 min	5th conc 32	3788	1.18E+03		
Compound 2		5.07 min	3.2	387	1.21E+03	1.24E+03	6.68
Toluene	FID	5.08 min	6.4	706	1.10E+03		
.		5.05 min	16	2053	1.28E+03		
.		5.07 min	19.2	2430	1.27E+03		
.		5.03 min	32	4202	1.31E+03		
Compound k		6.50 min	1st conc 3.2	260	8.13E+02	8.58E+02	7.14
Ehtyl Benzene	FID	6.52 min	2nd conc 6.4	496	7.75E+02		
		6.50 min	3rd conc 16	1431	8.95E+02		
		6.50 min	4th conc 19.2	1701	8.86E+02		
		6.50 min	5th conc 32	2946	9.21E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	3.07 min.	16	18671	1.17E+03	0.69	15
Compound 2 Toluene	FID	5.07 min	16	19865	1.24E+03	0.47	15
. Ethyl Benzene	FID	6.50 min	16	13277	8.30E+03	3.28	15
. MTBE	FID	2.13 min	16	6503	4.06E+02	2.69	15
Compound k P&M Xylenes	FID	6.63 min	32	45929	1.44E+03	0.54	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-10-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Chem Service
DATE OF SOURCE: 1-26-98
INSTRUMENT I.D.: GC-V4
LOT NUMBER: 195-53B

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.13 min	1st conc 3.2	132	4.15E+02	3.96E+02	6.55
MTBE	FID	2.15 min	2nd conc 6.4	231	3.62E+02		
		2.13 min	3rd conc 16	615	3.84E+02		
		2.13 min	4th conc 19.2	820	4.27E+02		
		2.15 min	5th conc 32	1247	3.90E+02		
Compound 2		6.63 min	3.2	984	1.54E+03	1.43E+03	5.77
P&M Xylenes	FID	6.65 min	6.4	1733	1.35E+03		
.		6.63 min	16	4762	1.49E+03		
.		6.63 min	19.2	5521	1.44E+03		
.		6.63 min	32	8634	1.35E+03		
Compound k		6.92 min	1st conc 3.2	421	1.32E+03	1.31E+03	5.10
O-Xylene	FID	6.93 min	2nd conc 6.4	762	1.19E+03		
		6.92 min	3rd conc 16	2146	1.34E+03		
		6.92 min	4th conc 19.2	2579	1.34E+03		
		6.92 min	5th conc 32	4325	1.35E+03		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	6.92 min.	16	2157.6	1.35E+03	1.96	15
Compound 2 TPH gas	FID	1-10 min	636.8	171459	3.27E+02	8.32	15
.							
.							
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-10-98
ANALYTICAL METHOD: 8015m/8020
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V4
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 122.56	46778	122.56	3.56E+02	6.81
TPH gas	FID	minutes	2nd conc 612.8	204250	612.8		
			3rd conc 1532	542751	1532		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-10-98 ANALYTICAL METHOD: 8015m

BATCH #: 1116-4 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 21FEB10 (BTEX) 17FEB10 (TPH gas) UNIT: (Circle one) ug/L)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.5	16	15.90	99	16	16.1	100	1	80-120	10
Toluene	<0.5	16	16.33	102	16	15.9	99	3	80-120	10
Ethyl Benzene	<0.5	16	16.31	102	16	16.1	101	1	80-120	10
MTBE	<2	16	17.24	106	16	17.9	110	4	80-120	10
P&M Xylene	<1	32	33.26	104	32	32.2	100	3	80-120	10
O-Xylene	<0.5	16	16.48	103	16	15.9	100	3	80-120	10
TPH gas	<50	636.8	585	92	636.8	554	87	5	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-11-98 ANALYTICAL METHOD: 8015m/8020

SUPPLY SOURCE: Chem Service/Texaco LAB LCS I.D.: 08FEB11/06FEB11

LOT NUMBER: 195-53B/VO-4-1224

DATE OF SOURCE: 1-26-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	18.1	113	85-115
Toluene	16	17.7	111	85-115
Ethyl Benzene	16	18.2	114	85-115
MTBE	16	17.0	106	85-115
P&M Xylenes	32	35.1	109	85-115
O-Xylene	16	17.6	110	85-115
TPH gas	636.8	636.8	100	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01179
Samples Received: 01/30/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 01/30/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	1/29/98	To	
Date(s) Received:	1/30/98	To	
Date(s) Reported:	2/20/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	1	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/11/98	2/11/98	2/11/98		
		DATE EXTRACTED	2/11/98	2/11/98	2/11/98		
		LAB SAMPLE I.D.	98-01179-10	98-01179-10	MB		
		CLIENT SAMPLE I.D.	HB12-5.0	HB12-5.0			
		EXTRACTION SOLVENT	TEG	TEG			
		EXTRACTION METHOD	5030	5030	5030		
		DILUTION FACTOR	24	3	1		
COMPOUND		PQL					
Benzene		0.006	NA	0.0079	ND		
Toluene		0.006	NA	0.17	ND		
Ethyl Benzene		0.05	0.78	NA	ND		
Methyl-t-butylether		0.02	NA	0.0079	ND		
Total Xylenes		0.2	4.1	NA	ND		
TPH gas		20	110	NA	ND		
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	71	123	86		

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m
*Revision

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/11/98	2/11/98	2/10/98		
		DATE EXTRACTED	2/11/98	2/11/98	2/10/98		
		LAB SAMPLE I.D.	98-01115-4	98-01115-5	MB		
		CLIENT SAMPLE I.D.	HB13-10.0	HB11-5.0			
		EXTRACTION SOLVENT	TEG	TEG			
		EXTRACTION METHOD	5030	5030	5030		
		DILUTION FACTOR	1	1	1		
COMPOUND		POL					
Benzene		0.002	ND	ND	ND		
Toluene		0.002	ND	ND	ND		
Ethyl Benzene		0.002	ND	0.0013	ND		
Methyl-t-butylether		0.005	ND	ND	ND		
Total Xylenes		0.005	ND	ND	ND		
TPH gas		0.5	ND	0.68	ND		
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	124	100	86		

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.66 min	1st conc 3.2	697	2.18E+02	2.26E+02	5.88
Benzene	FID	2.66 min	2nd conc 6.4	1328	2.08E+02		
		2.65 min	3rd conc 16	3699	2.31E+02		
		2.65 min	4th conc 19.2	4408	2.30E+02		
		2.65 min	5th conc 32	9744	2.42E+02		
Compound 2		4.37 min	3.2	732	2.29E+02	2.17E+02	3.75
Toluene	FID	4.37 min	6.4	1320	2.06E+02		
.		4.37 min	16	3514	2.20E+02		
.		4.35 min	19.2	412.1	2.15E+02		
.		4.36 min	32	6972	2.18E+02		
Compound k		5.94 min	1st conc 3.2	439	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	5.93 min	2nd conc 6.4	924	1.44E+02		
		5.95 min	3rd conc 16	2631	1.64E+02		
		5.93 min	4th conc 19.2	3149	1.64E+02		
		5.94 min	5th conc 32	5345	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.65 min.	16	3941	2.46E+02	9.17	15
Compound 2 Toluene	FID	4.35 min	16	3602	2.25E+02	3.54	15
. Ethyl Benzene	FID	5.93 min	16	2829	1.77E+02	13.77	15
. MTBE	FID	1.42 min	16	1236	7.73E+01	6.39	15
Compound k P&M Xylenes	FID	6.07 min	32	7836	2.45E+02	8.57	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.43 min	1st conc 3	210	6.56E+01	7.26E+01	7.32
MTBE	FID	1.43 min	2nd conc 6.6	446	6.97E+01		
		1.43 min	3rd conc 16.5	1252	7.83E+01		
		1.43 min	4th conc 19.8	1383	7.20E+01		
		1.43 min	5th conc 33.0	2479	7.75E+01		
Compound 2		5.94 min	3.2	1318	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	6.07 min	6.4	2785	2.18E+02		
.		6.08 min	16	7553	2.36E+02		
.		6.06 min	19.2	8974	2.34E+02		
.		6.07 min	32	15004	2.34E+02		
Compound k		6.39 min	1st conc 3.2	576	2.04E+02	2.14E+02	4.71
O-Xylene	FID	6.38 min	2nd conc 6.4	1311	2.05E+02		
		6.39 min	3rd conc 16	3604	2.25E+02		
		6.37 min	4th conc 19.2	4118	2.14E+02		
		6.38 min	5th conc 32	7157	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	6.37 min.	16	3887	2.43E+02	13.31	15
Compound 2 TPH gas	FID	1-10 min	636.8	16434	2.63E+01	7.57	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 125	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 625	16971	2.72E+01		
			3rd conc 1562	45629	2.90E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-10-98 ANALYTICAL METHOD: 8015m

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 11FEB10 (BTEX) 17FEB10 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	0.161	0.175	109	0.161	0.173	108	1	80-120	10
Toluene	<0.002	0.161	0.161	100	0.161	0.163	101	1	80-120	10
Ethyl Benzene	<0.002	0.161	0.178	110	0.161	0.177	110	1	80-120	10
P&M Xylene	0.002	0.322	0.320	105	0.322	0.338	104	1	80-120	10
O-Xylene	<0.005	0.161	0.161	100	0.161	0.163	101	1	80-120	10
MTBE	<0.005	0.161	0.162	100	0.161	0.165	102	2	80-120	10
TPH gas	<0.5	636.8	598.6	94	636.8	592.2	93	1	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-11-98 ANALYTICAL METHOD: 8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 36FEB10

LOT NUMBER: V0-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	17.4	109	85-115
Toluene	16	16.6	104	85-115
Ethyl Benzene	16	18.3	114	85-115
P&M Xylenes	32	34.7	108	85-115
O-Xylene	16	18.2	114	85-115
MTBE	16	17.0	106	85-115
TPH gas	636.8	587.6	92	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	1/29/98	To	
Date(s) Received:	1/30/98	To	
Date(s) Reported:	2/18/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/12/98	2/12/98	2/12/98	2/12/98	
		DATE EXTRACTED	2/12/98	2/12/98	2/12/98	2/12/98	
		LAB SAMPLE I.D.	98-01179-11	98-01179-12	98-01179-TB	MB	
		CLIENT SAMPLE I.D.	B10FB05	B10ER05	B10TB05		
		EXTRACTION SOLVENT					
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	24	3	1	1	
COMPOUND		POL					
Benzene		0.5	ND	ND	ND	ND	
Toluene		0.5	ND	ND	ND	ND	
Ethyl Benzene		0.5	ND	ND	ND	ND	
Methyl-t-butylether		2	ND	ND	ND	ND	
Total Xylenes		1	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	85	83	85	97	

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-22-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V5

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.31 min	1st conc 3.2	1229	3.84E+02	4.36E+02	9.45
Benzene	FID	2.32 min	2nd conc 6.4	2560	4.00E+02		
		2.31 min	3rd conc 16	7328	4.58E+02		
		2.32 min	4th conc 19.2	8890	4.63E+02		
		2.33 min	5th conc 32	15264	4.77E+02		
Compound 2		3.84 min	3.2	742	3.23E+02	3.81E+02	10.93
Toluene	FID	3.85 min	6.4	2253	3.52E+02		
.		3.83 min	16	6384	3.99E+02		
.		3.86 min	19.2	7795	4.06E+02		
.		3.88 min	32	13536	4.23E+02		
Compound k		5.55 min	1st conc 3.2	909	2.84E+02	3.17E+02	7.43
Ehtyl Benzene	FID	5.57 min	2nd conc 6.4	1888	2.95E+02		
		5.56 min	3rd conc 16	5232	3.27E+02		
		5.58 min	4th conc 19.2	6374	3.32E+02		
		5.57 min	5th conc 32	11072	3.46E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.32 min.	16	6407	4.00E+02	8.23	15
Compound 2 Toluene	FID	3.85 min	16	5648	3.53E+02	7.28	15
. Ethyl Benzene	FID	5.57 min	16	4597	2.87E+02	9.38	15
. MTBE	FID	1.26 min	16	2235	1.40E+02	8.25	15
Compound k O-Xylene	FID	6.03 min	16	5681	3.55E+02	9.79	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-22-98 BTEX
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V5
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.25 min	1st conc 3.2	432	1.35E+02	1.52E+01	11.66
Methyl-t-Butylether	FID	1.25 min	2nd conc 6.4	851	1.33E+02		
		1.25 min	3rd conc 16	2560	1.60E+02		
		1.25 min	4th conc 19.2	3053	1.59E+02		
		1.26 min	5th conc 32	5568	1.74E+02		
Compound 2		6.01 min	3.2	1123	3.51E+02	3.94E+02	10.17
P&M Xylenes	FID	6.03 min	6.4	2266	3.54E+02		
.		6.02 min	16	6512	4.07E+02		
.		6.03 min	19.2	7910	4.12E+02		
.		6.03 min	32	14208	4.44E+02		
Compound k		5.69 min	1st conc 3.2	1309	4.09E+02	4.60E+02	7.43
O-Xylene	FID	5.70 min	2nd conc 6.4	2810	4.39E+02		
		5.70 min	3rd conc 16	7680	4.80E+02		
		5.71 min	4th conc 19.2	9235	4.81E+02		
		5.71 min	5th conc 32	15616	4.88E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 P&M Xylenes	FID	5.71 min.	32	13754	4.30E+02	6.46	15
Compound 2 TPH gas	FID	1-10 min	638	13649	2.18E+01	4.57	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-7-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V5

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	2385	1.91E+01	2.29E+01	14.39
TPH gas	FID	minutes	2nd conc 624.8	15485	2.48E+01		
			3rd conc 1562	38742	2.48E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-11-98 ANALYTICAL METHOD: 8015m

BATCH #: TAP (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB11 (BTEX) 17FEB11 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.3	16	14.66	92	16	15.02	94	2	80-120	10
Toluene	<0.3	16	15.23	95	16	15.68	98	3	80-120	10
Ethyl Benzene	<0.3	16	14.64	92	16	15.13	95	3	80-120	10
P&M Xylene	<0.6	32	29.92	94	32	30.75	96	3	80-120	10
O-Xylene	<0.3	16	15.57	97	16	15.75	98	1	80-120	10
MTBE	<1	16	14.02	88	16	13.12	82	7	80-120	10
TPH gas	<50	638	683	107	638	722	113	5	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-12-98 ANALYTICAL METHOD: 8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 36FEB11 (BTEX)

LOT NUMBER: VO-1224 35FEB11 (TPH gas)

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.2	95	85-115
Toluene	16	15.1	94	85-115
Ethyl Benzene	16	14.6	91	85-115
P&M Xylenes	32	30.4	95	85-115
O-Xylene	16	14.8	93	85-115
MTBE	16	14.8	93	85-115
TPH gas	638	704.9	103	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LABORATORY REPORT FORM

Laboratory Name: BC Laboratories, Inc.

Address: 4100 Atlas Court, Bakersfield, CA 93308

Telephone: (805) 327-4911

Laboratory Certification (ELAP) No.: 1186 Expiration Date: 05/31/98

Laboratory Director's Name (Print): Dan Schultz

Laboratory Director's Signature: [signature]

Client: Alton Geoscience

Project No.: Site #4357

Analytical Method: (Circle One)	EPA 502.1	EPA 503.1	EPA 502.2	EPA 524.1
				EPA 524.2
	EPA 601	EPA 602		EPA 624
	EPA 8080	EPA 8020	EPA 8021	EPA 8240
				EPA 8260
Other				
Date Sampled:	1/29/98	1/29/98		
Date Received:	1/30/98	1/30/98		
Date Reported:	2/20/98	2/20/98		
Sample Matrix:	SOIL	SOIL		
Extraction Method:	5030	5030		
Extraction Material:	Inert Gas	Inert Gas		

Chain of Custody Received: **Yes** No

Sample Condition: Samples received refrigerated and in good condition

-- Sample Headspace Description (%): 0.0

-- Sample Container Material: Soil Sleeve

ANALYTICAL TEST RESULT[a]

Reporting Unit (Circle One): ug/kg ug/L **mg/kg**

DATE ANALYZED		2/13/98	2/13/98		
DATE EXTRACTED		2/13/98	2/13/98		
DILUTION FACTOR		1	1		
LAB SAMPLE I.D.		MB	98-01179-10		
CLIENT SAMPLE I.D.		Method Blank	HB12-5.0		
COMPOUND[b]	**MDL**	**MB**			
Bromobenzene	0.5	ND	NA		
Bromodichloromethane	0.5	ND	NA		
Bromoform	0.5	ND	NA		
Bromomethane	0.5	ND	NA		
Carbon tetrachloride	0.5	ND	NA		
Chloroethane	0.5	ND	NA		
Chloroform	0.5	ND	NA		
1-Chlorohexane	NA	NA	NA		
Chloromethane	0.5	ND	NA		
Dibromochloromethane	0.5	ND	NA		
Dibromomethane	0.5	ND	NA		
Dichlorodifluoromethane	0.5	ND	NA		
1,1-Dichloroethane (1,1-DCA)	0.5	ND	NA		
1,2-Dichloroethane (1,2-DCA)	0.5	ND	NA		
1,1-Dichloroethylene (1,1-DCE)	0.5	ND	NA		
trans-1,2-Dichloroethylene	0.5	ND	NA		
Dichloromethane	1.0	ND	NA		
1,2-Dichloropropane	0.5	ND	NA		
Total-1,3-Dichloropropylene	0.5	ND	NA		
1,1,1,2-Tetrachloroethane	0.5	ND	NA		
1,1,2,2-Tetrachloroethane	0.5	ND	NA		
Tetrachloroethylene (PCE)	0.5	ND	NA		
1,1,1-Trichloroethane (111-TCA)	0.5	ND	NA		

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01179-10		
1,1,2-Trichloroethane (112-TCA)	0.5	ND	NA		
Trichloroethylene (TCE)	0.5	ND	NA		
1,2,3-Trichloropropane	0.5	ND	NA		
Trichlorofluoromethane	0.5	ND	NA		
Vinyl chloride	0.5	ND	NA		
Benzene	.002	ND	NA		
Chlorobenzene	0.5	ND	NA		
1,2-Dichlorobenzene	0.5	ND	NA		
1,3-Dichlorobenzene	0.5	ND	NA		
1,4-Dichlorobenzene	0.5	ND	NA		
Methyl-t-butylether	.005	ND	ND		
Ethyl benzene	.002	ND	NA		
Toluene	.002	ND	NA		
Total-Xylenes	.005	ND	NA		
Acetone	NA	NA	NA		
Acrolein	NA	NA	NA		
Acrylonitrile	NA	NA	NA		
Bromochloromethane	0.5	ND	NA		
n-Butylbenzene	0.5	ND	NA		
sec-Butylbenzene	0.5	ND	NA		
tert-Butylbenzene	0.5	ND	NA		
2-Chloroethylvinyl ether	NA	NA	NA		
2-Chlorotoluene	0.5	ND	NA		
4-Chlorotoluene	0.5	ND	NA		
cis-1,2-Dichloroethylene	0.5	ND	NA		
1,3-Dichloropropane	0.5	ND	NA		
2,2-Dichloropropane	0.5	ND	NA		
1,1-Dichloropropylene	0.5	ND	NA		
Ethylene dibromide (EDB)	NA	NA	NA		
Hexachlorobutadiene	0.5	ND	NA		

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01179-10		
Isopropylbenzene	0.5	ND	NA		
p-Isopropyltoluene	0.5	ND	NA		
Methyl Isobutyl Ketone	NA	NA	NA		
Methyl Isobutyl Ketone	NA	NA	NA		
Naphthalene	0.5	ND	NA		
n-Propylbenzene	0.5	ND	NA		
Styrene	0.5	ND	NA		
1,2,3-Trichlorobenzene	0.5	ND	NA		
1,2,4-Trichlorobenzene	0.5	ND	NA		
1,2,4-Trimethylbenzene	0.5	ND	NA		
1,3,5-Trimethylbenzene	0.5	ND	NA		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	ND	NA		

SURROGATE	SPK CONC	ACP%	MB %RC	%RC		
1,2-Dichloroethane-d4	10	76-114	81	100		
Toluene-d8	10	88-110	94	98		
Bromofluorobenzene	10	86-115	89	99		

NOTES: [a] = Report Any Value ≥ MDL; [b] = Listed Compounds Are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining Compounds Identified by GC/MS.

SPK CONC = Spiking Concentration (≤5 x PQL);
ACP % = Acceptable Range of Percent; %RC = % Recovery

MDL = Method Detection Limit; MB = Method Blank;
ND = Not Detected (Below MDL); NA = Not Analyzed.

QA/QC REPORT

Reporting Unit (Circle One): **ug/kg** ug/L

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2/13/98
BATCH #: 1604-10
LAB SAMPLE I.D.: 13FEB07.D&13FEB08.D

ANALYTE	SPK CONC	MS	% MS	MSD	% MSD	RPD	ACP %MS	ACP RPD
Chloroethane	80	75	94	85	106	12	80-120	20
1,1-Dichloroethene	80	78	98	85	106	8	80-120	20
1,1-Dichloroethane	80	75	94	80	100	6	80-120	20
Benzene	80	77	96	80	100	4	80-120	20
Trichloroethene	80	81	101	83	104	3	80-120	20
Bromodichloromethane	80	75	94	76	95	1	80-120	20
Toluene	80	79	99	79	99	0	80-120	20
1,4-Dichlorobenzene	80	80	100	85	106	6	80-120	20
Chlorobenzene	80	81	101	84	105	4	80-120	20

II. Laboratory Quality Control Check Sample

DATE PERFORMED: 2/13/98
BATCH #: LCSW
LAB SAMPLE I.D.: 13FEB11.D

ANALYTE	SPK CONC	RESULT	%RECOVERY	ACP %
Vinyl Chloride	16.00	17.44	109	80-120
1,1-Dichloroethene	16.00	16.17	101	80-120
Chloroform	16.00	15.79	99	80-120
1,2-Dichloropropane	16.00	15.95	100	80-120
Bromoform	16.00	15.45	96	80-120
Chlorobenzene	16.00	16.05	100	80-120
1,1-Dichloroethane	16.00	16.11	101	80-120
1,1,2,2-Tetrachloroethane	16.00	16.30	102	80-120

ANALYST: MC/SNM DATE: 2/13/98

III. Calibration Standard

SUPPLY SOURCE

DAILY
CALIBRATION
DATE:2/13/98

LIQUIDS(VO-5-1784)
ACCU STD.
LOT#A7030442
GASES(VO-5-1911)
ACCU STD.
LOT#A7080225

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
Bromobenzene				
Bromochloromethane				
Bromodichloromethane				
Bromoform◂				
Bromomethane	***PLEASE	SEE	ATTACHED	
Carbon tetrachloride	CALIBRATION	SHEETS*		
Chloroethane				
Chloroform*				
1-Chlorohexane				
Chloromethane◂				
Dibromochloromethane				
Dibromomethane				
Dichloromethane (Methylene Chloride)				
1,1-Dichloroethane◂ (1,1-DCA)				
1,2-Dichloroethane (1,2-DCA)				
1,1-Dichloroethylene* (1,1-DCE)				
trans-1,2-Dichloroethylene				
1,2-Dichloropropane*				
cis-1,3-Dichloropropylene				

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
trans-1,3-Dichloropropylene				
1,1,1,2-Tetrachloroethane				
1,1,2,2-Tetrachloroethane◂	***PLEASE	SEE	ATTACHED	
Tetrachloroethylene (PCE)	CALIBRATION	SHEETS*		
1,1,1-Trichloroethane (1,1,1-TCA)				
1,1,2-Trichloroethane (1,1,2-TCA)				
Trichloroethylene (TCE)				
1,2,3-Trichloropropane				
Trichlorofluoromethane				
Vinyl chloride* (VC)				
Benzene				
Chlorobenzene◂				
1,2-Dichlorobenzene				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Ethyl Benzene*				
Toluene*				
m,p-Xylenes				
o-Xylene				
Acetone				
Acrolein				
Acrylonitrile				
n-Butylbenzene				
sec-Butylbenzene				
tert-Butylbenzene				
2-Chloroethylvinyl ether				
2-Chlorotoluene				

III. Calibration Standard (cont'd)

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
4-Chlorotoluene				
Dichlorodifluoromethane				
cis-1,2-Dichloroethylene				
trans-1,2-Dichloroethylene	***PLEASE	SEE	ATTACHED	
1,3-Dichloropropane	CALIBRATION	SHEETS*		
2,2-Dichloropropane				
1,1-Dichloropropylene				
Ethylene dibromide (EDB)				
Hexachlorobutadiene				
Isopropylbenzene				
p-Isopropyltoluene				
Methyl Ethyl Ketone				
Methyl Isobutyl Ketone				
Naphthalene				
n-Propylbenzene				
Styrene				
1,2,3-Trichlorobenzene				
1,2,4-Trichlorobenzene				
1,2,4-Trimethylbenzene				
1,3,5-Trimethylbenzene				
1,1,2-Trichloro-1,2,2-trifluoroethane				

SPK CONC = Spiking Concentration (≤5 x PQL); PQL = Practical Quantitation Limit;
%MS = Percent Recovery of MS; %MSD = Percent Recovery of MSD; RPD = Relative Percent Difference;
ACP = Acceptable Range of Percent; INITIAL RF_{ave} = Average Response Factor From Initial Calibration;
DAILY RF = Response Factor From Daily Calibration; %RSD = Percent Relative Standard Deviation;
%DIFF = Percent Difference; c = Listed Compounds are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining compounds Identified by GC/MS.
d = Value ≤10% for GC EPA Methods 500 & 600 Series, ≤20% for GC EPA Methods 8000 Series, ≤30% for GC/MS Methods.
e = Value ≤20% for GC EPA Methods 500 & 600 Series, ≤15% for GC EPA Methods 8000 Series, ≤25% for GC/MS Methods.
* = Calibration Check Compounds (CCC) for GC/MS Method;
◂ = System Performance Check Compounds (SPCC) for GC/Ms Method

III. Calibration Standard (cont'd)

REQUIREMENT

1. Indicate any modification made to the EPA Methods (e.g., testing constituent list, columns).
2. Provide details of corrective actions in any out of control events (e.g., re-calibration, blank contamination, etc.).
3. Co-elution must be resolved prior to reporting, except for xylenes.
4. Second column or MS confirmation must be performed for all compounds detected.
5. Analytical results are not to be blank adjusted.
6. Chemical standards for QC check samples and calibration should be obtained from different supply sources.
7. Any change of column, detector, chemical standard, etc. shall result in a new initial calibration.
8. Lowest concentration injected for initial calibration should not exceed three times of laboratory method detection limits.
9. Re-calibration is required whenever the RF from daily calibration is not within the range specified in item "e" above from initial calibration RF_{ave}.
10. Tentative identified compounds and all unidentified peaks must be reported.
11. Chromatogram for calibration standards, quality control check samples, and selected environmental samples must be submitted upon request.

[F:\WP60\DATA\DOCS\SHEILAH\LAFORMS\30998.7]

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB13\13FEB11.D Vial: 15
Acq On : 13 Feb 98 2:55 pm Operator: S MAURER
Sample : CCV 5 V0-5-1938 Inst : GC/MS Ins
Misc : 25 ML 16.0 UG/L Multiplr: 1.00
Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 13 16:27:17 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	98	0.02	
2		Dichorodifluoromethane	0.710	0.708	0.3	99	0.00	
3	P	Chloromethane	0.338	0.297	12.1	89	0.00	
4	C	Vinyl Chloride	0.432	0.471	-9.0	108	0.02	
5		Bromomethane	0.484	0.548	-13.2	110	0.02	
6	M	Chloroethane	0.326	0.356	-9.2	109	0.00	
7		Trichlorofluoromethane	0.864	0.882	-2.1	101	0.02	
8		1,1,2-Trichloro-1,2,2-Trifl	1.142	1.215	-6.4	105	0.02	
9	MC	1,1-Dichloroethene	0.919	0.929	-1.1	98	0.00	
10		Methylene Chloride	0.456	0.445	2.4	99	0.00	
11		MTBE	0.762	0.710	6.8	95	0.02	
12		T-1,2-Dichlrorethene	0.530	0.558	-5.3	105	0.00	
13	MP	1,1-Dichloroethane	1.053	1.060	-0.7	101	0.02	
[illegible]		2,2-Dichloropropane	0.864	0.878	-1.6	100	0.02	
[illegible]		Cis-1,2-Dichloroethene	0.604	0.630	-4.3	106	0.02	
16		Bromochloromethane	0.235	0.223	5.1	101	0.02	L.R
17	C	Chloroform	1.047	1.033	1.3	100	0.02	
18		1,1,1-Trichloroethane	0.996	1.002	-0.6	97	0.02	
19	S	1,2-Dichloroethane-d4 SMC 1	0.467	0.433	7.3	91	0.05	
20		Carbon Tetrachloride	0.846	0.868	-2.6	98	0.02	
21		1,1-Dichloropropene	0.927	0.998	-7.7	106	0.02	
22	M	Benzene	1.879	1.871	0.4	100	0.05	
23		1,2-Dichloroethane	0.526	0.498	5.3	96	0.02	
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	98	-0.03	
25	M	Trichloroethene	0.370	0.374	-1.1	98	0.05	
26	C	1,2-Dichloropropane	0.308	0.307	0.3	99	0.02	
27		Dibromomethane	0.151	0.150	0.7	96	0.05	
28	M	Bromodichloromethane	0.379	0.376	0.8	96	0.02	
29		2-CEVE	0.028	0.028	0.0	76	0.02	L.R
30		T-1,3-Dichloropropene	0.333	0.317	4.8	92	0.00	
31	S	Toluene-D8 SMC #1	1.067	1.063	0.4	97	0.02	
32	M	Toluene	1.191	1.223	-2.7	99	0.08	
33		Cis-1,3-Dichloropropene	0.224	0.213	4.9	91	0.05	
34		1,1,2-Trichloroethane	0.171	0.171	0.0	102	0.05	
35		Tetrachloroethene	0.402	0.435	-8.2	107	0.02	
36		1,3-Dichloropropane	0.293	0.299	-2.0	102	0.05	
37		Dibromochloromethane	0.193	0.193	0.0	97	0.05	
38		1,2-Dibromoethane	0.165	0.165	0.0	100	0.02	
39	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	102	0.02	
40	M	Chlorobenzene	3.076	3.085	-0.3	104	0.05	
41		1,1,1,2-Tetrachloroethane	1.092	1.068	2.2	101	0.02	
42		Ethylbenzene	5.878	5.695	3.1	99	0.02	
43		p+m-Xylene	4.542	4.606	-1.4	103	0.02	

44		o-Xylene	4.242	4.086	3.7	97	0.02
45		Styrene	2.672	2.609	2.4	98	0.05
46	P	Bromoform	0.289	0.279	-3.5	95	0.02
47		Isopropylbenzene	5.414	5.494	-1.5	101	0.00
48	S	Bromofluorobenzene SMC #3	1.676	1.592	5.0	96	0.02
49		Bromobenzene	1.049	1.009	3.8	100	0.02
50		1,1,2,2-tetrachloroethane	0.535	0.545	-1.9	109	0.05
51		1,2,3-Trichloropropane	0.504	0.473	6.2	98	0.02
52		N-Propylbenzene	6.602	6.726	-1.9	105	0.02
53		2-Chlorotoluene	4.045	3.916	3.2	104	0.02
54		4-Chlorotoluene	3.778	3.679	2.6	100	0.05
55		1,3,5-trimethylbenzene	4.040	4.159	-2.9	107	0.02
56		Tert-buthylbenzene	4.191	4.325	-3.2	108	0.02
57		1,2,4-Trimethylbenzene	3.803	3.812	-0.2	104	0.05
58		Sec-buthylbenzene	5.685	5.892	-3.6	107	0.02
59		1,3-Dichlorobenzene	1.895	1.853	2.2	102	0.05
60		4-Isopropyltoluene	4.611	4.612	-0.0	104	0.02
61	M	1,4-Dichlorobenzene (M)	1.929	1.858	3.7	100	0.02
62		1,2-Dichlorobenzene	1.485	1.437	3.2	99	0.05
63		N-buthylbenzene	4.705	4.766	-1.3	104	0.05
64		1,2-dibromo-3-chloropopane	0.065	0.059	9.2	91	0.05
65		1,2,4-Trichlorobenzene	0.910	0.920	-1.1	100	0.02
66		Hexachlorobutadiene	0.932	0.961	-3.1	110	0.05
67		Naphthalene	0.835	0.825	1.2	94	0.05
68		1,2,3-Trichlorobenzene	0.679	0.713	-5.0	103	0.05

(#) = Out of Range SPCC's out = 1 CCC's out = 0

10FEB31.D 8260MSV1.M Fri Feb 13 17:29:04 1998

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB13\13FEB30.D Vial: 15
Acq On : 14 Feb 98 2:49 am Operator: M. CHAVEZ
Sample : CCV 6 VO-5-1938 Inst : GC/MS Ins
Misc : 25 ML; 16.0 UG/L Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 13 16:27:17 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	105	0.05
2		Dichorodifluoromethane	0.710	0.707	0.4	106	0.00
3	P	Chloromethane	0.338	0.393	-16.3	126	0.02
4	C	Vinyl Chloride	0.432	0.475	-10.0	116	0.02
5		Bromomethane	0.484	0.485	-0.2	104	0.02
6	M	Chloroethane	0.326	0.372	-14.1	121	0.02
7		Trichlorofluoromethane	0.864	0.894	-3.5	109	0.02
8		1,1,2-Trichloro-1,2,2-Trifl	1.142	1.275	-11.6	118	0.02
9	MC	1,1-Dichloroethene	0.919	0.998	-8.6	113	0.02
10		Methylene Chloride	0.456	0.487	-6.8	115	0.02
11		MTBE	0.762	0.773	-1.4	110	0.02
12		T-1,2-Dichlrorethene	0.530	0.569	-7.4	114	0.02
13	MP	1,1-Dichloroethane	1.053	1.111	-5.5	112	0.02
		2,2-Dichloropropane	0.864	0.831	3.8	101	0.02
15		Cis-1,2-Dichloroethene	0.604	0.671	-11.1	120	0.05
16		Bromochloromethane	0.235	0.238	-1.3	115	0.02
17	C	Chloroform	1.047	1.095	-4.6	113	0.02
18		1,1,1-Trichloroethane	0.996	1.035	-3.9	107	0.05
19	S	1,2-Dichloroethane-d4 SMC 1	0.467	0.475	-1.7	106	0.05
20		Carbon Tetrachloride	0.846	0.899	-6.3	108	0.05
21		1,1-Dichloropropene	0.927	1.001	-8.0	113	0.05
22	M	Benzene	1.879	1.989	-5.9	113	0.05
23		1,2-Dichloroethane	0.526	0.532	-1.1	109	0.02
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	110	0.02
25	M	Trichloroethene	0.370	0.373	-0.8	110	0.08
26	C	1,2-Dichloropropane	0.308	0.316	-2.6	114	0.02
27		Dibromomethane	0.151	0.152	-0.7	109	0.05
28	M	Bromodichloromethane	0.379	0.373	1.6	106	0.05
29		2-CEVE	0.028	0.029#	-3.6	88	0.05
30		T-1,3-Dichloropropene	0.333	0.335	-0.6	108	0.05
31	S	Toluene-D8 SMC #1	1.067	1.062	0.5	108	0.05
32	M	Toluene	1.191	1.199	-0.7	109	0.11
33		Cis-1,3-Dichloropropene	0.224	0.207	7.6	99	0.08
34		1,1,2-Trichloroethane	0.171	0.173	-1.2	116	0.08
35		Tetrachloroethene	0.402	0.416	-3.5	115	0.05
36		1,3-Dichloropropane	0.293	0.301	-2.7	115	0.05
37		Dibromochloromethane	0.193	0.173	10.4	98	0.08
		1,2-Dibromoethane	0.165	0.158	4.2	108	0.02
39	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	109	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB13\13FEB30.D Vial: 15
Acq On : 14 Feb 98 2:49 am Operator: M. CHAVEZ
Sample : CCV 6 VO-5-1938 Inst : GC/MS Ins
Misc : 25 ML; 16.0 UG/L Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Fri Feb 13 16:27:17 1998
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	M	Chlorobenzene	3.076	3.112	-1.2	112	0.05
41		1,1,1,2-Tetrachloroethane	1.092	1.066	2.4	107	0.05
42		Ethylbenzene	5.878	5.509	6.3	101	0.05
43		p+m-Xylene	4.542	4.627	-1.9	110	0.05
44		o-Xylene	4.242	4.239	0.1	107	0.02
45		Styrene	2.672	2.712	-1.5	109	0.02
46	P	Bromoform	0.289	0.267	7.6	97	0.02
47		Isopropylbenzene	5.414	5.579	-3.0	109	0.02
48	S	Bromofluorobenzene SMC #3	1.676	1.621	3.3	103	0.02
49		Bromobenzene	1.049	1.039	1.0	110	0.02
50		1,1,2,2-tetrachloroethane	0.535	0.556	-3.9	118	0.05
51		1,2,3-Trichloropropane	0.504	0.414	17.9	91	0.02
52		N-Propylbenzene	6.602	6.817	-3.3	113	0.02
53		2-Chlorotoluene	4.045	3.719	8.1	105	0.02
54		4-Chlorotoluene	3.778	3.939	-4.3	114	0.05
55		1,3,5-trimethylbenzene	4.040	4.137	-2.4	113	0.02
56		Tert-buthylbenzene	4.191	4.340	-3.6	115	0.02
57		1,2,4-Trimethylbenzene	3.803	3.836	-0.9	112	0.05
58		Sec-buthylbenzene	5.685	5.772	-1.5	111	0.05
59		1,3-Dichlorobenzene	1.895	1.899	-0.2	111	0.02
60		4-Isopropyltoluene	4.611	4.737	-2.7	114	0.02
61	M	1,4-Dichlorobenzene (M)	1.929	1.981	-2.7	114	0.02
62		1,2-Dichlorobenzene	1.485	1.454	2.1	107	0.05
63		N-buthylbenzene	4.705	4.820	-2.4	112	0.02
64		1,2-dibromo-3-chloropopane	0.065	0.063#	3.1	104	0.05
65		1,2,4-Trichlorobenzene	0.910	0.924	-1.5	107	0.05
66		Hexachlorobutadiene	0.932	0.962	-3.2	117	0.02
67		Naphthalene	0.835	0.870	-4.2	105	0.05
68		1,2,3-Trichlorobenzene	0.679	0.733	-8.0	112	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Feb 11 16:18:37 1998
Response via : Initial Calibration

Liquids (V0-S-1909) Absolute Std Lot # 090297

Gases (V0-S-1910) Accustandard Lot # A7080342

Calibration Files

3.2	=10FEB28.D	8.0	=10FEB30.D	16.0	=10FEB31.D
24.0	=10FEB32.D	32.0	=10FEB33.D		

		Compound	3.2	8.0	16.0	24.0	32.0	Avg	%RSD	
1)	I	Pentafluorobenzene I	----------ISTD----------							
2)		Dichorodifluoromethan	0.749	0.715	0.698	0.703	0.684	0.710	3.47	
3)	P	Chloromethane	0.346	0.339	0.326	0.342	0.336	0.338	2.27	
4)	C	Vinyl Chloride	0.464	0.419	0.427	0.423	0.425	0.432	4.29	
5)		Bromomethane	0.517	0.474	0.488	0.461	0.482	0.484	4.28	
6)	M	Chloroethane	0.340	0.326	0.321	0.328	0.316	0.326	2.76	
7)		Trichlorofluoromethan	0.918	0.860	0.857	0.866	0.818	0.864	4.12	
8)		1,1,2-Trichloro-1,2,2	1.252	1.133	1.131	1.097	1.095	1.142	5.63	
9)	MC	1,1-Dichloroethene	0.958	0.904	0.926	0.889	0.919	0.919	2.83	
10)		Methylene Chloride	0.494	0.460	0.441	0.434	0.451	0.456	5.16	
11)		MTBE	0.820	0.751	0.732	0.737	0.770	0.762	4.70	
12)		T-1,2-Dichlrorethene	0.550	0.512	0.523	0.530	0.536	0.530	2.67	
13)	MP	1,1-Dichloroethane	1.121	1.031	1.034	1.032	1.045	1.053	3.68	
14)		2,2-Dichloropropane	0.900	0.840	0.859	0.855	0.865	0.864	2.59	
15)		Cis-1,2-Dichloroethen	0.612	0.601	0.582	0.601	0.623	0.604	2.53	
16)		Bromochloromethane	0.238	0.203	0.216	0.219	0.296	0.235	15.62	L.R
17)	C	Chloroform	1.110	1.012	1.013	1.043	1.057	1.047	3.84	
18)		1,1,1-Trichloroethane	1.014	0.968	1.013	0.998	0.989	0.996	1.88	
19)	S	1,2-Dichloroethane-d4	0.441	0.461	0.468	0.474	0.490	0.467	3.83	
20)		Carbon Tetrachloride	0.831	0.812	0.870	0.865	0.854	0.846	2.84	
21)		1,1-Dichloropropene	0.965	0.911	0.925	0.921	0.915	0.927	2.33	
22)	M	Benzene	2.043	1.825	1.843	1.845	1.838	1.879	4.91	
23)		1,2-Dichloroethane	0.582	0.514	0.511	0.518	0.505	0.526	6.05	
24)	I	1,4-Difluorobenzene	----------ISTD----------							
25)	M	Trichloroethene	0.384	0.364	0.374	0.371	0.356	0.370	2.86	
26)	C	1,2-Dichloropropane	0.336	0.308	0.303	0.298	0.297	0.308	5.20	
27)		Dibromomethane	0.153	0.147	0.153	0.152	0.151	0.151	1.65	
28)	M	Bromodichloromethane	0.347	0.363	0.384	0.398	0.402	0.379	6.16	
29)		2-CEVE	0.031	0.029	0.036	0.040	0.004	0.028	51.02	L.R
30)		T-1,3-Dichloropropene	0.300	0.319	0.339	0.344	0.362	0.333	7.20	
31)	S	Toluene-D8 SMC #1	1.071	1.086	1.074	1.048	1.053	1.067	1.47	
32)	M	Toluene	1.248	1.199	1.203	1.143	1.164	1.191	3.37	
33)		Cis-1,3-Dichloroprope	0.203	0.214	0.229	0.231	0.244	0.224	7.00	
34)		1,1,2-Trichloroethane	0.181	0.174	0.164	0.166	0.170	0.171	3.98	
35)		Tetrachloroethene	0.423	0.396	0.398	0.396	0.399	0.402	2.92	
36)		1,3-Dichloropropane	0.298	0.291	0.286	0.287	0.305	0.293	2.61	
37)		Dibromochloromethane	0.162	0.181	0.194	0.204	0.224	0.193	12.06	
38)		1,2-Dibromoethane	0.161	0.162	0.161	0.166	0.173	0.165	3.08	
39)	I	Chlorobenzene-D5 IS#3	----------ISTD----------							
40)	M	Chlorobenzene	3.117	3.104	3.022	3.030	3.106	3.076	1.49	
41)		1,1,1,2-Tetrachloroet	1.057	1.074	1.084	1.091	1.153	1.092	3.33	
42)		Ethylbenzene	5.737	5.984	5.908	5.841	5.918	5.878	1.59	
43)		p+m-Xylene	4.820	4.534	4.565	4.379	4.411	4.542	3.84	
44)		o-Xylene	4.236	4.278	4.322	4.141	4.232	4.242	1.59	
45)		Styrene	2.616	2.636	2.712	2.696	2.699	2.672	1.61	
46)	P	Bromoform	0.252	0.255	0.299	0.311	0.328	0.289	11.82	
47)		Isopropylbenzene	5.524	5.366	5.572	5.346	5.260	5.414	2.40	

48)	S	Bromofluorobenzene S	1.666	1.676	1.703	1.714	1.623	1.676	2.13
49)		Bromobenzene	1.073	1.056	1.027	1.076	1.015	1.049	2.62
50)		1,1,2,2-tetrachloroet	0.516	0.530	0.513	0.552	0.564	0.535	4.18
51)		1,2,3-Trichloropropan	0.603	0.490	0.494	0.481	0.450	0.504	11.56
52)		N-Propylbenzene	6.870	6.653	6.536	6.720	6.233	6.602	3.62
53)		2-Chlorotoluene	4.181	3.938	3.862	4.291	3.954	4.045	4.49
54)		4-Chlorotoluene	3.697	3.916	3.746	3.822	3.709	3.778	2.42
55)		1,3,5-trimethylbenzen	3.912	4.029	3.965	4.232	4.062	4.040	3.02
56)		Tert-buthylbenzene	4.131	4.232	4.102	4.357	4.133	4.191	2.51
57)		1,2,4-Trimethylbenzen	3.765	3.780	3.735	3.968	3.767	3.803	2.47
58)		Sec-buthylbenzene	5.602	5.790	5.624	5.875	5.533	5.685	2.50
59)		1,3-Dichlorobenzene	1.899	1.913	1.852	1.965	1.845	1.895	2.58
60)		4-Isopropyltoluene	4.592	4.680	4.516	4.775	4.493	4.611	2.54
61)	M	1,4-Dichlorobenzene	1.903	1.941	1.890	2.025	1.888	1.929	2.97
62)		1,2-Dichlorobenzene	1.486	1.513	1.477	1.528	1.421	1.485	2.79
63)		N-buthylbenzene	4.634	4.725	4.691	4.854	4.623	4.705	1.97
64)		1,2-dibromo-3-chlorop	0.065	0.057	0.066	0.070	0.069	0.065	8.07
65)		1,2,4-Trichlorobenzen	0.833	0.861	0.943	0.976	0.937	0.910	6.62
66)		Hexachlorobutadiene	0.963	0.971	0.890	0.974	0.865	0.932	5.49
67)		Naphthalene	0.658	0.759	0.896	0.950	0.912	0.835	14.67
68)		1,2,3-Trichlorobenzen	0.613	0.648	0.708	0.726	0.699	0.679	6.89

(#) = Out of Range

8260MSV1.M Wed Feb 11 16:33:34 1998

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB10\10FEB40.D Vial: 16
Acq On : 11 Feb 98 8:41 am Operator: M. CHAVEZ
Sample : 524.2/8260 ICV B 16.0 UG/L Inst : GC/MS Ins
Misc : 25 ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Feb 11 16:34:51 1998
Response via : Multiple Level Calibration

Liquids (VO-S-1784) ACCU std Lot # A7030442
Gases (VO-S-1911) ACCU std Lot # A7080225

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	104	0.02	
2		Dichorodifluoromethane	0.710	0.796	-12.1	119	0.00	
3	P	Chloromethane	0.338	0.428	-26.6	137	0.00	
4	C	Vinyl Chloride	0.432	0.473	-9.5	116	0.00	
5		Bromomethane	0.484	0.475	1.9	102	0.00	
6	M	Chloroethane	0.326	0.340	-4.3	111	0.00	
7		Trichlorofluoromethane	0.864	0.999	-15.6	122	0.00	
8		1,1,2-Trichloro-1,2,2-Trifl	1.142	1.064	6.8	98	0.00	
9	MC	1,1-Dichloroethene	0.919	0.806	12.3	91	0.00	
10		Methylene Chloride	0.456	0.422	7.5	100	0.00	
11		MTBE	0.762	0.744	2.4	106	-0.03	
12		T-1,2-Dichlrorethene	0.530	0.531	-0.2	106	0.00	
13	MP	1,1-Dichloroethane	1.053	0.964	8.5	97	0.00	
[illegible]		2,2-Dichloropropane	0.864	0.702	18.8	85	0.00	
[illegible]		Cis-1,2-Dichloroethene	0.604	0.536	11.3	96	0.02	
16		Bromochloromethane	0.235	0.211	10.2	102	0.00	L.R
17	C	Chloroform	1.047	1.021	2.5	105	0.00	
18		1,1,1-Trichloroethane	0.996	0.938	5.8	97	0.02	
19	S	1,2-Dichloroethane-d4 SMC 1	0.467	0.457	2.1	102	0.02	
20		Carbon Tetrachloride	0.846	0.811	4.1	97	0.00	
21		1,1-Dichloropropene	0.927	0.885	4.5	100	0.02	
22	M	Benzene	1.879	1.735	7.7	98	0.02	
23		1,2-Dichloroethane	0.526	0.475	9.7	97	0.00	
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	106	0.00	
25	M	Trichloroethene	0.370	0.350	5.4	99	0.02	
26	C	1,2-Dichloropropane	0.308	0.305	1.0	106	0.00	
27		Dibromomethane	0.151	0.147	2.6	101	0.02	
28	M	Bromodichloromethane	0.379	0.383	-1.1	105	0.00	
29		2-CEVE	0.028	0.030	-7.1	88	0.00	L.R
30		T-1,3-Dichloropropene	0.333	0.310	6.9	96	0.00	
31	S	Toluene-D8 SMC #1	1.067	1.042	2.3	102	-0.03	
32	M	Toluene	1.191	1.097	7.9	96	0.02	
33		Cis-1,3-Dichloropropene	0.224	0.196	12.5	90	0.00	
34		1,1,2-Trichloroethane	0.171	0.155	9.4	100	0.02	
35		Tetrachloroethene	0.402	0.371	7.7	98	0.00	
36		1,3-Dichloropropane	0.293	0.271	7.5	100	0.02	
37		Dibromochloromethane	0.193	0.191	1.0	104	0.00	
38		1,2-Dibromoethane	0.165	0.151	8.5	99	-0.03	
[illegible]	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	104	0.00	
40	M	Chlorobenzene	3.076	2.925	4.9	101	0.00	
41		1,1,1,2-Tetrachloroethane	1.092	1.064	2.6	102	0.00	
42		Ethylbenzene	5.878	5.563	5.4	98	0.00	
43		p+m-Xylene	4.542	4.348	4.3	99	0.00	

44		o-Xylene	4.242	3.909	7.9	94	0.00
45		Styrene	2.672	2.312	13.5	89	0.00
46	P	Bromoform	0.289	0.269	6.9	93	0.00
47		Isopropylbenzene	5.414	4.936	8.8	92	0.00
48	S	Bromofluorobenzene SMC #3	1.676	1.651	1.5	101	0.00
49		Bromobenzene	1.049	0.985	6.1	100	0.00
50		1,1,2,2-tetrachloroethane	0.535	0.525	1.9	106	0.02
51		1,2,3-Trichloropropane	0.504	0.467	7.3	98	0.00
52		N-Propylbenzene	6.602	6.213	5.9	99	0.00
53		2-Chlorotoluene	4.045	3.698	8.6	100	0.02
54		4-Chlorotoluene	3.778	3.603	4.6	100	0.02
55		1,3,5-trimethylbenzene	4.040	3.816	5.5	100	0.00
56		Tert-buthylbenzene	4.191	3.924	6.4	99	0.00
57		1,2,4-Trimethylbenzene	3.803	3.585	5.7	100	0.02
58		Sec-buthylbenzene	5.685	5.462	3.9	101	0.00
59		1,3-Dichlorobenzene	1.895	1.770	6.6	99	0.00
60		4-Isopropyltoluene	4.611	4.320	6.3	99	0.00
61	M	1,4-Dichlorobenzene (M)	1.929	1.827	5.3	100	0.00
62		1,2-Dichlorobenzene	1.485	1.360	8.4	96	0.02
63		N-buthylbenzene	4.705	4.489	4.6	99	0.02
64		1,2-dibromo-3-chloropopane	0.065	0.054	16.9	86	0.02
65		1,2,4-Trichlorobenzene	0.910	0.938	-3.1	103	0.00
66		Hexachlorobutadiene	0.932	0.937	-0.5	109	0.00
67		Naphthalene	0.835	0.863	-3.4	100	0.00
68		1,2,3-Trichlorobenzene	0.679	0.690	-1.6	101	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

10FEB31.D 8260MSV1.M Wed Feb 11 16:39:53 1998

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01278
Samples Received: 02/02/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/02/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site #4357

Date(s) Sampled:	2/2/98	To	
Date(s) Received:	2/2/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/13/98	2/13/98	2/14/98	2/14/98	
		DATE EXTRACTED	2/13/98	2/13/98	2/14/98	2/14/98	
		LAB SAMPLE I.D.	MB	98-01278-7	98-01278-8	98-01278-TB	
		CLIENT SAMPLE I.D.		B9FB06	B9ER06	B9TB06	
		EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		POL					
Benzene		.5	ND	.19	ND	ND	
Toluene		.5	ND	.44	ND	ND	
Ethyl Benzene		.5	ND	ND	ND	ND	
Methyl-t-butylether		2.0	ND	ND	.68	ND	
Total Xylenes		1.0	ND	1.1	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	85	85	98	82	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-13-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V3
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.9	15375	7.50E+01	8.19E+01	7.39
TPH gas	FID	1-10 min	2nd conc 624.8	61680	8.60E+01		
		1-10 min	3rd conc 1562	169335	8.48E+01		
		1-10 min	4th conc				
		1-10 min	5th conc				
Compound 2		1-10 min	3.2	2940.8	9.19E+02	8.76E+02	4.39
Benzene	FID	1-10 min	6.4	5798.4	9.06E+02		
.		1-10 min	16	14048	8.78E+02		
.		1-10 min	19.2	16320	8.50E+02		
.		1-10 min	32	26432	8.26E+02		
ompound k		1-10 min	1st conc 3.2	2451.2	7.66E+02	7.81E+02	2.74
Toluene	FID	1-10 min	2nd conc 6.4	5100.8	7.97E+02		
		1-10 min	3rd conc 16	12912	8.07E+02		
		1-10 min	4th conc 19.2	15033.6	7.83E+02		
		1-10 min	5th conc 32	24160	7.55E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 TPH gas	FID	1-10 min.	636.8	50592	9.40E+01	14.76	15
Compound 2 Benzene	FID	1-10 min	6.4	13363	8.35E+02	4.64	15
Compound k Toluene	FID	1-10 min	6.4	12171	7.61E+02	2.65	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration: BTXE

DATE PERFORMED: 1-23-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	2361.6	7.38E+02	7.09E+02	10.44
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	4857.6	7.59E+02		
		1-10 min	3rd conc 16	11888	7.43E+02		
		1-10 min	4th conc 19.2	13977.6	7.28E+02		
		1-10 min	5th conc 32	18496	5.78E+02		
Compound 2		1-10 min	3.2	1241.6	3.88E+02	3.46E+02	14.41
Methyl-t-butylether	FID	1-10 min	6.4	2412.8	3.77E+02		
.		1-10 min	16	6032	3.77E+02		
.		1-10 min	19.2	5222.4	2.72E+02		
.		1-10 min	32	10176	3.18E+02		
Compound k		1-10 min	1st conc 3.2	3392	1.06E+02	9.73E+02	8.62
P&M Xylenes	FID	1-10 min	2nd conc 6.4	6656	1.04E+02		
		1-10 min	3rd conc 16	15808	9.88E+02		
		1-10 min	4th conc 19.2	17779.2	9.26E+02		
		1-10 min	5th conc 32	27328	8.54E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Ethyl Benzene	FID	1-10 min.	6.4	11921	7.45E+02	5.04	15
Compound 2							
Methyl-t-butylether	FID	1-10 min	6.4	5550	3.47E+02	.16	15
Compound k Total Xylenes	FID	1-10 min	12.8	29935	9.35E+02	3.82	15
O-Xylenes	FID	1-10 min	6.4	5676.8	8.87E+02	.98	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration: BTXE

DATE PERFORMED: 1-23-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	3360	1.05E+03	8.95E+03	18.19
O-Xylenes	FID	1-10 min	2nd conc 6.4	6592	1.03E+03		
		1-10 min	3rd conc 16	15152	9.47E+03		
		1-10 min	4th conc 19.2	14092.8	7.34E+03		
		1-10 min	5th conc 32	22752	7.11E+03		
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-15-98 ANALYTICAL METHOD: 8020 (BTXE) 8015m (TPH gas)

BATCH #: TAP (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 02FEB15 (BTEX) 03FEB15 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.3	16	13.89	87	16	13.88	87	0	80-120	10
Toluene	<.3	16	14.05	88	16	14.17	88	1	80-120	10
Ethyl Benzene	<.3	16	14.91	93	16	14.96	94	0	80-120	10
P&M Xylenes	<.6	32	28.20	88	32	28.34	89	1	80-120	10
Methyl-t-butylether	<5	16	14.02	88	16	14.71	92	5	80-120	10
TPH gas	<50	636.8	719.58	113	636.8	725.95	114	1	80-120	10
O-Xylenes	<.3	16	15.00	94	16	15.00	94	0	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-15-98 ANALYTICAL METHOD: 8020 (BTXE) 8015m (TPH gas)

SUPPLY SOURCE: Texaco LAB LCS I.D.: 15FEB15 (BTXE) 14FEB15 (TPH gas)

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	13.60	85	85-115
Toluene	16	13.92	87	85-115
Ethyl Benzene	16	14.56	91	85-115
P&M Xylenes	32	27.84	87	85-115
Methyl-t-butylether	16	13.92	87	85-115
TPH gas	636.8	706.85	111	85-115
O-Xylenes	16	15.20	95	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LABORATORY REPORT FORM

Laboratory Name: BC Laboratories, Inc.

Address: 4100 Atlas Court, Bakersfield, CA 93308

Telephone: (805) 327-4911

Laboratory Certification (ELAP) No.: 1186 Expiration Date: 05/31/98

Laboratory Director's Name (Print): Dan Schultz

Laboratory Director's Signature: _____

Client: Alton Geoscience

Project No.: Site # 4357

Analytical Method: (Circle One)	EPA 502.1	EPA 503.1	EPA 502.2	EPA 524.1 EPA 524.2
	EPA 601	EPA 602		EPA 624
	EPA 8080	EPA 8020	EPA 8021	EPA 8240 **EPA 8260**
Other				
Date Sampled:	2/2/98	2/2/98		
Date Received:	2/2/98	2/2/98		
Date Reported:	2/23/98	2/23/98		
Sample Matrix:	WATER	WATER		
Extraction Method:	5030	5030		
Extraction Material:	Inert Gas	Inert Gas		

Chain of Custody Received: **Yes** No

Sample Condition: Samples received refrigerated and in good condition

-- Sample Headspace Description (%): 0.0

-- Sample Container Material: VOA vials

ANALYTICAL TEST RESULT[a]

Reporting Unit (Circle One): ug/kg ug/L

DATE ANALYZED		2/18/98	2/18/98		
DATE EXTRACTED		2/18/98	2/18/98		
DILUTION FACTOR		1	1		
LAB SAMPLE I.D.		MB	98-01278-8		
CLIENT SAMPLE I.D.		Method Blank	B9ER06		
COMPOUND[b]	**MDL**	**MB**			
Bromobenzene	0.5	ND	NA		
Bromodichloromethane	0.5	ND	NA		
Bromoform	0.5	ND	NA		
Bromomethane	0.5	ND	NA		
Carbon tetrachloride	0.5	ND	NA		
Chloroethane	0.5	ND	NA		
Chloroform	0.5	ND	NA		
1-Chlorohexane	NA	NA	NA		
Chloromethane	0.5	ND	NA		
Dibromochloromethane	0.5	ND	NA		
Dibromomethane	0.5	ND	NA		
Dichlorodifluoromethane	0.5	ND	NA		
1,1-Dichloroethane (1,1-DCA)	0.5	ND	NA		
1,2-Dichloroethane (1,2-DCA)	0.5	ND	NA		
1,1-Dichloroethylene (1,1-DCE)	0.5	ND	NA		
trans-1,2-Dichloroethylene	0.5	ND	NA		
Dichloromethane	1.0	ND	NA		
1,2-Dichloropropane	0.5	ND	NA		
Total-1,3-Dichloropropylene	0.5	ND	NA		
1,1,1,2-Tetrachloroethane	0.5	ND	NA		
1,1,2,2-Tetrachloroethane	0.5	ND	NA		
Tetrachloroethylene (PCE)	0.5	ND	NA		
1,1,1-Trichloroethane (111-TCA)	0.5	ND	NA		

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01278-8		
1,1,2-Trichloroethane (112-TCA)	0.5	ND	NA		
Trichloroethylene (TCE)	0.5	ND	NA		
1,2,3-Trichloropropane	0.5	ND	NA		
Trichlorofluoromethane	0.5	ND	NA		
Vinyl chloride	0.5	ND	NA		
Benzene	0.5	ND	ND		
Chlorobenzene	0.5	ND	NA		
1,2-Dichlorobenzene	0.5	ND	NA		
1,3-Dichlorobenzene	0.5	ND	NA		
1,4-Dichlorobenzene	0.5	ND	NA		
Methyl-t-butylether	2.0	ND	.87		
Ethyl benzene	0.5	ND	ND		
Toluene	0.5	ND	ND		
Total-Xylenes	1.0	ND	ND		
Acetone	NA	NA	NA		
Acrolein	NA	NA	NA		
Acrylonitrile	NA	NA	NA		
Bromochloromethane	0.5	ND	NA		
n-Butylbenzene	0.5	ND	NA		
sec-Butylbenzene	0.5	ND	NA		
tert-Butylbenzene	0.5	ND	NA		
2-Chloroethylvinyl ether	NA	NA	NA		
2-Chlorotoluene	0.5	ND	NA		
4-Chlorotoluene	0.5	ND	NA		
cis-1,2-Dichloroethylene	0.5	ND	NA		
1,3-Dichloropropane	0.5	ND	NA		
2,2-Dichloropropane	0.5	ND	NA		
1,1-Dichloropropylene	0.5	ND	NA		
Ethylene dibromide (EDB)	NA	NA	NA		
Hexachlorobutadiene	0.5	ND	NA		

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01278-8		
Isopropylbenzene	0.5	ND	NA		
p-Isopropyltoluene	0.5	ND	NA		
Methyl Isobutyl Ketone	NA	NA	NA		
Methyl Isobutyl Ketone	NA	NA	NA		
Naphthalene	0.5	ND	NA		
n-Propylbenzene	0.5	ND	NA		
Styrene	0.5	ND	NA		
1,2,3-Trichlorobenzene	0.5	ND	NA		
1,2,4-Trichlorobenzene	0.5	ND	NA		
1,2,4-Trimethylbenzene	0.5	ND	NA		
1,3,5-Trimethylbenzene	0.5	ND	NA		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	ND	NA		

SURROGATE	SPK CONC	ACP%	MB %RC	%RC		
1,2-Dichloroethane-d4	10	76-114	92	95		
Toluene-d8	10	88-110	96	99		
Bromofluorobenzene	10	86-115	93	97		

NOTES: [a] = Report Any Value ≥ MDL; [b] = Listed Compounds Are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining Compounds Identified by GC/MS.

SPK CONC = Spiking Concentration (≤5 x PQL);
ACP % = Acceptable Range of Percent; %RC = % Recovery

MDL = Method Detection Limit; MB = Method Blank;
ND = Not Detected (Below MDL); NA = Not Analyzed.

QA/QC REPORT

Reporting Unit (Circle One): ug/kg **ug/L**

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2/18/98
BATCH #: 1673-1
LAB SAMPLE I.D.: 18FEB07.D&18FEB08.D

ANALYTE	SPK CONC	MS	% MS	MSD	% MSD	RPD	ACP %MS	ACP RPD
Chloroethane	16	19	116	18	114	2	80-120	20
1,1-Dichloroethene	16	18	111	17	107	4	80-120	20
1,1-Dichloroethane	16	18	109	18	109	1	80-120	20
Benzene	16	17	105	17	106	1	80-120	20
Trichloroethene	16	31	85	32	89	5	80-120	20
Bromodichloromethane	16	15	93	15	91	2	80-120	20
Toluene	16	14	89	14	88	1	80-120	20
1,4-Dichlorobenzene	16	17	104	16	102	1	80-120	20
Chlorobenzene	16	17	103	17	105	2	80-120	20

II. Laboratory Quality Control Check Sample

DATE PERFORMED: 2/18/98
BATCH #: LCSW
LAB SAMPLE I.D.: 18FEB02.D

ANALYTE	SPK CONC	RESULT	%RECOVERY	ACP %
Vinyl Chloride	16.00	18.59	116	80-120
1,1-Dichloroethene	16.00	17.34	108	80-120
Chloroform	16.00	15.86	99	80-120
1,2-Dichloropropane	16.00	15.40	96	80-120
Bromoform	16.00	14.15	88	80-120
Chlorobenzene	16.00	16.09	100	80-120
1,1-Dichloroethane	16.00	16.97	106	80-120
1,1,2,2-Tetrachloroethane	16.00	13.92	87	80-120

ANALYST: MC/SNM DATE: 2/18/98

III. Calibration Standard

SUPPLY SOURCE

DAILY
CALIBRATION
DATE:2/18/98

LIQUIDS(VO-5-1784)
ACCU STD.
LOT#A7030442
GASES(VO-5-1911)
ACCU STD.
LOT#A7080225

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
Bromobenzene				
Bromochloromethane				
Bromodichloromethane				
Bromoform◂				
Bromomethane	***PLEASE	SEE	ATTACHED	
Carbon tetrachloride	CALIBRATION	SHEETS*		
Chloroethane				
Chloroform*				
1-Chlorohexane				
Chloromethane◂				
Dibromochloromethane				
Dibromomethane				
Dichloromethane (Methylene Chloride)				
1,1-Dichloroethane◂ (1,1-DCA)				
1,2-Dichloroethane (1,2-DCA)				
1,1-Dichloroethylene* (1,1-DCE)				
trans-1,2-Dichloroethylene				
1,2-Dichloropropane*				
cis-1,3-Dichloropropylene				

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
trans-1,3-Dichloropropylene				
1,1,1,2-Tetrachloroethane				
1,1,2,2-Tetrachloroethane◂	***PLEASE	SEE	ATTACHED	
Tetrachloroethylene (PCE)	CALIBRATION	SHEETS*		
1,1,1-Trichloroethane (1,1,1-TCA)				
1,1,2-Trichloroethane (1,1,2-TCA)				
Trichloroethylene (TCE)				
1,2,3-Trichloropropane				
Trichlorofluoromethane				
Vinyl chloride* (VC)				
Benzene				
Chlorobenzene◂				
1,2-Dichlorobenzene				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Ethyl Benzene*				
Toluene*				
m,p-Xylenes				
o-Xylene				
Acetone				
Acrolein				
Acrylonitrile				
n-Butylbenzene				
sec-Butylbenzene				
tert-Butylbenzene				
2-Chloroethylvinyl ether				
2-Chlorotoluene				

III. Calibration Standard (cont'd)

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
4-Chlorotoluene				
Dichlorodifluoromethane				
cis-1,2-Dichloroethylene				
trans-1,2-Dichloroethylene	***PLEASE	SEE	ATTACHED	
1,3-Dichloropropane	CALIBRATION	SHEETS*		
2,2-Dichloropropane				
1,1-Dichloropropylene				
Ethylene dibromide (EDB)				
Hexachlorobutadiene				
Isopropylbenzene				
p-Isopropyltoluene				
Methyl Ethyl Ketone				
Methyl Isobutyl Ketone				
Naphthalene				
n-Propylbenzene				
Styrene				
1,2,3-Trichlorobenzene				
1,2,4-Trichlorobenzene				
1,2,4-Trimethylbenzene				
1,3,5-Trimethylbenzene				
1,1,2-Trichloro-1,2,2-trifluoroethane				

SPK CONC = Spiking Concentration (≤5 x PQL); PQL = Practical Quantitation Limit;
%MS = Percent Recovery of MS; %MSD = Percent Recovery of MSD; RPD = Relative Percent Difference;
ACP = Acceptable Range of Percent; INITIAL RF_{ave} = Average Response Factor From Initial Calibration;
DAILY RF = Response Factor From Daily Calibration; %RSD = Percent Relative Standard Deviation;
%DIFF = Percent Difference; c = Listed Compounds are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining compounds Identified by GC/MS.
d = Value ≤10% for GC EPA Methods 500 & 600 Series, ≤20% for GC EPA Methods 8000 Series, ≤30% for GC/MS Methods.
e = Value ≤20% for GC EPA Methods 500 & 600 Series, ≤15% for GC EPA Methods 8000 Series, ≤25% for GC/MS Methods.
* = Calibration Check Compounds (CCC) for GC/MS Method;
◂ = System Performance Check Compounds (SPCC) for GC/Ms Method

III. Calibration Standard (cont'd)

REQUIREMENT

1. Indicate any modification made to the EPA Methods (e.g., testing constituent list, columns).
2. Provide details of corrective actions in any out of control events (e.g., re-calibration, blank contamination, etc.).
3. Co-elution must be resolved prior to reporting, except for xylenes.
4. Second column or MS confirmation must be performed for all compounds detected.
5. Analytical results are not to be blank adjusted.
6. Chemical standards for QC check samples and calibration should be obtained from different supply sources.
7. Any change of column, detector, chemical standard, etc. shall result in a new initial calibration.
8. Lowest concentration injected for initial calibration should not exceed three times of laboratory method detection limits.
9. Re-calibration is required whenever the RF from daily calibration is not within the range specified in item "e" above from initial calibration RF_{ave}.
10. Tentative identified compounds and all unidentified peaks must be reported.
11. Chromatogram for calibration standards, quality control check samples, and selected environmental samples must be submitted upon request.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB18\18FEB02.D Vial: 10
Acq On : 18 Feb 98 7:43 am Operator: S MAURER
Sample : CCV 1 V0-5-1927 Inst : MS-V3
Misc : 25 ML 16.0 UG/L Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82603.M
Title : VOAL Purgable Organics
Last Update : Tue Feb 17 15:16:36 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)	
1	I	pentafluorobenzene IS #1	1.000	1.000	0.0	96	-0.06	
2		dichlorodifluoromethane	0.559	0.566	-1.3	100	-0.03	
3	P	chloromethane	0.326	0.354	-8.7	104	-0.03	
4	C	vinyl chloride	0.321	0.373	-16.2	113	-0.03	
5		bromomethane	0.307	0.366	-19.1	115	-0.03	
6	M	chloroethane	0.232	0.266	-14.8	111	-0.03	
7		trichlorofluoromethane	0.584	0.635	-8.8	108	-0.03	
8		1,1,2-trichloro1,2,2trifluo	0.836	1.002	-19.8	121	-0.03	
9	MC	1,1-dichloroethene	0.383	0.415	-8.6	109	-0.04	
10		methylene chloride	0.420	0.416	0.9	100	-0.05	
11		MTBE	0.583	0.541	7.1	88	-0.03	
12		trans-1,2-dichloroethene	0.472	0.499	-5.7	106	-0.05	
13	MP	1,1-dichloroethane	0.973	1.032	-6.1	105	-0.04	
14		2,2-dichloropropane	0.750	0.864	-15.2	114	-0.05	
		cis-1,2-dichloroethene	0.567	0.576	-1.8	98	-0.05	
		bromochloromethane	0.260	0.261	-0.3	99	-0.05	
17	C	chloroform	0.941	0.933	0.8	100	-0.05	
18		1,1,1-trichloroethane	0.884	0.944	-6.8	108	-0.05	
19	S	1,2-dichloroethane-d4 SMC	0.385	0.370	3.8	92	-0.05	
20		carbon tetrachloride	0.838	0.911	-8.7	107	-0.05	
21		1,1-dichloropropene	0.826	0.869	-5.1	105	-0.05	
22	M	benzene	1.655	1.690	-2.1	99	-0.06	
23		1,2-dichloroethane	0.408	0.386	5.6	89	-0.05	
24	I	1,4-difluorobenzene IS #	1.000	1.000	0.0	96	-0.06	
25	M	trichloroethene	0.322	0.324	-0.8	98	-0.05	
26	C	1,2-dichloropropane	0.291	0.280	3.6	94	-0.06	
27		dibromomethane	0.128	0.129	-0.6	97	-0.08	
28	M	bromodichloromethane	0.409	0.372	9.0	92	-0.06	
29		2-CEVE	0.001	0.000	31.6#	63	-0.08	LR
30		trans-1,3-dichloropropene	0.236	0.199	15.8	85	-0.08	
31	S	toluene-d8 SMC	0.919	0.922	-0.3	97	-0.07	
32	MC	toluene	0.556	0.488	12.2	86	-0.08	
33		cis-1,3-dichloropropene	0.351	0.313	10.9	86	-0.08	
34		1,1,2-trichloroethane	0.142	0.119	16.0	83	-0.06	
35		tetrachloroethene	0.385	0.393	-2.3	100	-0.04	
36		1,3-dichloropropane	0.260	0.231	11.4	85	-0.06	
37		dibromochloromethane	0.279	0.254	9.1	88	-0.06	
38		1,2-dibromoethane	0.198	0.188	4.9	92	-0.06	
	I	chlorobenzene-d5 IS # 3	1.000	1.000	0.0	96	-0.03	
40	MP	chlorobenzene	2.597	2.611	-0.5	99	-0.03	
41		1,1,1,2-tetrachloroethane	1.155	1.002	13.2	84	-0.05	
42	C	ethylbenzene	4.190	4.392	-4.8	103	-0.05	
43		m+p-xylene	1.534	1.686	-9.9	106	-0.04	
44		o-xylene	1.545	1.551	-0.4	102	-0.03	

45		styrene	2.319	2.379	-2.6	101	-0.04
46	P	bromoform	0.615	0.544	11.6	85	-0.03
47		isopropylbenzene	4.367	4.719	-8.1	105	-0.03
48	S	4-bromofluorobenzene SMC #	1.906	1.856	2.7	94	-0.03
49		bromobenzene	1.153	1.149	0.3	102	-0.03
50	P	1,1,2,2-tetrachloroethane	0.676	0.588	13.0	84	-0.03
51		1,2,3-trichloropropane	0.475	0.422	11.1	93	0.00
52		n-propylbenzene	4.973	5.273	-6.0	104	-0.03
53		2-chlorotoluene	3.307	3.365	-1.8	98	-0.02
54		4-chlorotoluene	3.145	3.226	-2.6	98	-0.04
55		1,3,5-trimethylbenzene	3.361	3.423	-1.8	100	-0.03
56		tert-butylbenzene	3.851	4.002	-3.9	103	-0.02
57		1,2,4-trimethylbenzene	3.233	3.238	-0.2	96	-0.04
58		sec-butylbenzene	4.748	5.160	-8.7	105	-0.03
59		1,3-dichlorobenzene	2.026	2.057	-1.5	100	-0.03
60		4-isopropyltoluene	4.026	4.126	-2.5	99	-0.03
61	M	1,4-dichlorobenzene	1.853	1.889	-2.0	100	-0.03
62		1,2-dichlorobenzene	1.630	1.610	1.2	98	-0.03
63		n-butylbenzene	3.436	3.569	-3.9	100	-0.03
64		1,2-dibromo-3-chloropropane	0.130	0.113	13.6	85	-0.03
65		1,2,4-trichlorobenzene	1.280	1.262	1.4	101	-0.03
66		hexachlorobutadiene	1.337	1.492	-11.6	118	-0.01
67		naphthalene	1.151	0.965	16.2	85	-0.03
68		1,2,3-trichlorobenzene	1.061	1.023	3.5	98	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

17FEB07.D 82603.M Wed Feb 18 08:33:33 1998

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB18\18FEB21.D Vial: 10
Acq On : 18 Feb 98 7:22 pm Operator: S MAURER
Sample : CCV 2 V0-5-1927 Inst : MS-V3
Misc : 25 ML 16.0 UG/L Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82603.M
Title : VOAL Purgable Organics
Last Update : Tue Feb 17 15:16:36 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	pentafluorobenzene IS #1	1.000	1.000	0.0	93	-0.06
2		dichlorodifluoromethane	0.559	0.573	-2.6	98	-0.03
3	P	chloromethane	0.326	0.349	-7.2	100	-0.03
4	C	vinyl chloride	0.321	0.382	-19.1	113	-0.03
5		bromomethane	0.307	0.386	-25.8#	118	-0.03
6	M	chloroethane	0.232	0.265	-14.6	107	-0.03
7		trichlorofluoromethane	0.584	0.627	-7.4	103	-0.03
8		1,1,2-trichloro1,2,2trifluo	0.836	0.991	-18.5	116	-0.03
9	MC	1,1-dichloroethene	0.383	0.412	-7.7	105	-0.05
10		methylene chloride	0.420	0.437	-4.0	101	-0.05
11		MTBE	0.583	0.612	-4.9	96	-0.03
12		trans-1,2-dichloroethene	0.472	0.498	-5.6	103	-0.05
13	MP	1,1-dichloroethane	0.973	1.029	-5.8	102	-0.05
14		2,2-dichloropropane	0.750	0.808	-7.8	103	-0.05
[illegible]		cis-1,2-dichloroethene	0.567	0.599	-5.8	98	-0.05
[illegible]		bromochloromethane	0.260	0.268	-3.1	99	-0.05
17	C	chloroform	0.941	0.961	-2.1	99	-0.05
18		1,1,1-trichloroethane	0.884	0.925	-4.7	103	-0.05
19	S	1,2-dichloroethane-d4 SMC	0.385	0.377	2.0	90	-0.05
20		carbon tetrachloride	0.838	0.894	-6.7	102	-0.05
21		1,1-dichloropropene	0.826	0.866	-4.8	101	-0.05
22	M	benzene	1.655	1.747	-5.5	100	-0.05
23		1,2-dichloroethane	0.408	0.410	-0.3	92	-0.05
24	I	1,4-difluorobenzene IS #	1.000	1.000	0.0	95	-0.07
25	M	trichloroethene	0.322	0.329	-2.2	97	-0.05
26	C	1,2-dichloropropane	0.291	0.313	-7.6	104	-0.05
27		dibromomethane	0.128	0.139	-8.4	103	-0.07
28	M	bromodichloromethane	0.409	0.414	-1.4	100	-0.05
29		2-CEVE	0.001	0.001	-9.9	99	-0.08 LR
30		trans-1,3-dichloropropene	0.236	0.231	2.1	97	-0.09
31	S	toluene-d8 SMC	0.919	0.942	-2.5	97	-0.07
32	MC	toluene	0.556	0.576	-3.7	100	-0.09
33		cis-1,3-dichloropropene	0.351	0.351	-0.1	95	-0.07
34		1,1,2-trichloroethane	0.142	0.147	-3.8	101	-0.07
35		tetrachloroethene	0.385	0.431	-12.1	107	-0.04
36		1,3-dichloropropane	0.260	0.267	-2.8	96	-0.06
37		dibromochloromethane	0.279	0.277	0.7	94	-0.06
38		1,2-dibromoethane	0.198	0.205	-3.3	98	-0.06
[illegible]	I	chlorobenzene-d5 IS # 3	1.000	1.000	0.0	94	-0.04
40	MP	chlorobenzene	2.597	2.695	-3.8	101	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB18\18FEB21.D Vial: 10
Acq On : 18 Feb 98 7:22 pm Operator: S MAURER
Sample : CCV 2 V0-5-1927 Inst : MS-V3
Misc : 25 ML 16.0 UG/L Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82603.M
Title : VOAL Purgable Organics
Last Update : Tue Feb 17 15:16:36 1998
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41		1,1,1,2-tetrachloroethane	1.155	1.172	-1.5	97	-0.04
42	C	ethylbenzene	4.190	4.404	-5.1	102	-0.04
43		m+p-xylene	1.534	1.706	-11.2	106	-0.04
44		o-xylene	1.545	1.591	-3.0	103	-0.03
45		styrene	2.319	2.454	-5.8	103	-0.04
46	P	bromoform	0.615	0.628	-2.1	96	-0.03
47		isopropylbenzene	4.367	4.707	-7.8	104	-0.03
48	S	4-bromofluorobenzene SMC #	1.906	1.936	-1.6	97	-0.03
49		bromobenzene	1.153	1.190	-3.2	104	-0.03
50	P	1,1,2,2-tetrachloroethane	0.676	0.690	-2.1	97	-0.03
51		1,2,3-trichloropropane	0.475	0.479	-0.9	104	0.00
52		n-propylbenzene	4.973	5.444	-9.5	106	-0.03
53		2-chlorotoluene	3.307	3.591	-8.6	103	-0.03
54		4-chlorotoluene	3.145	3.608	-14.7	109	-0.03
55		1,3,5-trimethylbenzene	3.361	3.494	-4.0	101	-0.03
56		tert-butylbenzene	3.851	4.008	-4.1	102	-0.04
57		1,2,4-trimethylbenzene	3.233	3.407	-5.4	99	-0.03
58		sec-butylbenzene	4.748	5.191	-9.3	104	-0.02
59		1,3-dichlorobenzene	2.026	2.112	-4.2	101	-0.03
60		4-isopropyltoluene	4.026	4.278	-6.2	102	-0.02
61	M	1,4-dichlorobenzene	1.853	1.959	-5.7	102	-0.03
62		1,2-dichlorobenzene	1.630	1.706	-4.7	103	-0.03
63		n-butylbenzene	3.436	3.750	-9.1	104	-0.03
64		1,2-dibromo-3-chloropropane	0.130	0.118	9.5	88	-0.03
65		1,2,4-trichlorobenzene	1.280	1.344	-5.0	106	-0.03
66		hexachlorobutadiene	1.337	1.457	-9.0	114	-0.02
67		naphthalene	1.151	1.082	6.0	94	-0.03
68		1,2,3-trichlorobenzene	1.061	1.117	-5.3	106	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report MS-V3

Method : C:\HPCHEM\1\METHODS\82603.M
Title : VOAL Purgable Organics
Last Update : Tue Feb 17 15:15:43 1998
Response via : Initial Calibration

Liquids (VO-5-1909) Absolute
Lot # 090-297

Gases - (VO-5-1910) Accu Std.
Lot # A708 0342

Calibration Files
3.2 =17FEB05.D 8.0 =17FEB06.D 16.0 =17FEB07.D
24.0 =17FEB08.D 32.0 =17FEB09.D

		Compound	3.2	8.0	16.0	24.0	32.0	Avg	%RSD	
1)	I	pentafluorobenzene I	----------ISTD----------							
2)		dichlorodifluorometha	0.609	0.556	0.543	0.540	0.546	0.6	5.11	
3)	P	chloromethane	0.382	0.326	0.325	0.302	0.295	0.3	10.49	
4)	C	vinyl chloride	0.373	0.343	0.315	0.287	0.285	0.3	11.72	
5)		bromomethane	0.283	0.310	0.304	0.313	0.326	0.3	5.14	
6)	M	chloroethane	0.249	0.235	0.230	0.225	0.220	0.2	4.81	
7)		trichlorofluoromethan	0.624	0.601	0.563	0.553	0.577	0.6	4.97	
8)		1,1,2-trichloro1,2,2t	0.970	0.827	0.790	0.793	0.799	0.8	9.13	
9)	MC	1,1-dichloroethene	0.461	0.366	0.365	0.375	0.346	0.4	11.79	
10)		methylene chloride	0.481	0.416	0.400	0.402	0.401	0.4	8.27	
11)		MTBE	0.545	0.589	0.588	0.578	0.615	0.6	4.30	
12)		trans-1,2-dichloroeth	0.540	0.469	0.450	0.448	0.451	0.5	8.28	
13)	MP	1,1-dichloroethane	1.023	0.984	0.938	0.946	0.972	1.0	3.49	
14)		2,2-dichloropropane	0.759	0.798	0.727	0.723	0.741	0.7	4.05	
15)		cis-1,2-dichloroethen	0.600	0.571	0.565	0.539	0.558	0.6	3.93	
16)		bromochloromethane	0.270	0.261	0.251	0.253	0.264	0.3	2.99	
17)	C	chloroform	1.010	0.953	0.897	0.913	0.931	0.9	4.68	
[illegible]		1,1,1-trichloroethane	0.980	0.902	0.838	0.842	0.859	0.9	6.69	
[illegible]	S	1,2-dichloroethane-d4	0.392	0.379	0.387	0.381	0.385	0.4	1.34	
20)		carbon tetrachloride	0.881	0.851	0.816	0.807	0.836	0.8	3.50	
21)		1,1-dichloropropene	0.879	0.848	0.794	0.792	0.819	0.8	4.51	
22)	M	benzene	1.755	1.617	1.628	1.622	1.655	1.7	3.49	
23)		1,2-dichloroethane	0.414	0.399	0.413	0.401	0.415	0.4	1.95	
24)	I	1,4-difluorobenzene	----------ISTD----------							
25)	M	trichloroethene	0.338	0.319	0.319	0.311	0.321	0.3	3.17	
26)	C	1,2-dichloropropane	0.299	0.283	0.286	0.289	0.299	0.3	2.57	
27)		dibromomethane	0.119	0.121	0.128	0.132	0.140	0.1	6.58	
28)	M	bromodichloromethane	0.426	0.405	0.390	0.396	0.427	0.4	4.16	
29)		2-CEVE	0.000	0.001	0.001	0.001	0.001	0.0	18.93	LR
30)		trans-1,3-dichloropro	0.228	0.223	0.225	0.245	0.259	0.2	6.69	
31)	S	toluene-d8	0.890	0.887	0.916	0.941	0.960	0.9	3.48	
32)	MC	toluene	0.558	0.539	0.543	0.549	0.589	0.6	3.61	
33)		cis-1,3-dichloroprope	0.348	0.338	0.349	0.348	0.374	0.4	3.77	
34)		1,1,2-trichloroethane	0.137	0.132	0.138	0.145	0.158	0.1	7.15	
35)		tetrachloroethene	0.396	0.375	0.380	0.376	0.396	0.4	2.68	
36)		1,3-dichloropropane	0.252	0.247	0.262	0.262	0.277	0.3	4.38	
37)		dibromochloromethane	0.277	0.266	0.278	0.276	0.299	0.3	4.28	
38)		1,2-dibromoethane	0.194	0.188	0.197	0.200	0.211	0.2	4.16	
39)	I	chlorobenzene-d5 IS	----------ISTD----------							
40)	MP	chlorobenzene	2.770	2.528	2.510	2.590	2.590	2.6	3.96	
[illegible]		1,1,1,2-tetrachloroet	1.189	1.128	1.141	1.130	1.187	1.2	2.62	
[illegible]	C	ethylbenzene	4.401	4.054	4.080	4.249	4.165	4.2	3.36	
43)		m+p-xylene	1.596	1.460	1.521	1.561	1.530	1.5	3.29	
44)		o-xylene	1.640	1.566	1.458	1.544	1.518	1.5	4.30	
45)		styrene	2.294	2.282	2.256	2.373	2.392	2.3	2.57	
46)	P	bromoform	0.628	0.597	0.615	0.613	0.625	0.6	1.98	
47)		isopropylbenzene	4.636	4.280	4.281	4.430	4.205	4.4	3.93	

48)	S	4-bromofluorobenzene	1.933	1.910	1.893	1.963	1.833	1.9	2.55
49)		bromobenzene	1.274	1.137	1.081	1.144	1.127	1.2	6.26
50)	P	1,1,2,2-tetrachloroet	0.697	0.641	0.670	0.680	0.692	0.7	3.28
51)		1,2,3-trichloropropan	0.578	0.434	0.434	0.461	0.468	0.5	12.58
52)		n-propylbenzene	5.059	4.903	4.864	5.018	5.022	5.0	1.71
53)		2-chlorotoluene	3.514	3.242	3.277	3.328	3.172	3.3	3.90
54)		4-chlorotoluene	3.321	3.022	3.134	3.084	3.162	3.1	3.56
55)		1,3,5-trimethylbenzen	3.656	3.314	3.255	3.366	3.215	3.4	5.18
56)		tert-butylbenzene	4.216	3.755	3.704	3.885	3.696	3.9	5.64
57)		1,2,4-trimethylbenzen	3.419	3.177	3.234	3.217	3.121	3.2	3.47
58)		sec-butylbenzene	4.933	4.758	4.689	4.743	4.616	4.7	2.48
59)		1,3-dichlorobenzene	2.199	1.976	1.964	2.019	1.970	2.0	4.90
60)		4-isopropyltoluene	4.238	3.949	3.974	4.004	3.966	4.0	2.98
61)	M	1,4-dichlorobenzene	1.969	1.799	1.812	1.836	1.846	1.9	3.66
62)		1,2-dichlorobenzene	1.746	1.603	1.570	1.629	1.600	1.6	4.20
63)		n-butylbenzene	3.588	3.289	3.413	3.454	3.439	3.4	3.11
64)		1,2-dibromo-3-chlorop	0.132	0.133	0.127	0.124	0.135	0.1	3.44
65)		1,2,4-trichlorobenzen	1.316	1.227	1.198	1.303	1.356	1.3	5.12
66)		hexachlorobutadiene	1.510	1.262	1.204	1.394	1.315	1.3	8.92
67)		naphthalene	1.101	1.069	1.083	1.199	1.304	1.2	8.65
68)		1,2,3-trichlorobenzen	1.130	1.038	0.995	1.047	1.094	1.1	4.91

(#) = Out of Range

82603.M Tue Feb 17 15:16:44 1998

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB17\17FEB12.D Vial: 11
Acq On : 17 Feb 98 2:05 pm Operator: S MAURER
Sample : ICV B 16.0 UG/L Inst : MS-V3
Misc : 25 ML Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\82603.M Liquids (VO-5-1784) Accu Std. Lot # A7030442
Title : VOAL Purgable Organics
Last Update : Tue Feb 17 15:16:36 1998
Response via : Multiple Level Calibration Gases (VO-5-1911) Accu Std. Lot # A7080225

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)	
1	I	pentafluorobenzene IS #1	1.000	1.000	0.0	91	-0.01	
2		dichlorodifluoromethane	0.559	0.688	-23.0	115	0.00	
3	P	chloromethane	0.326	0.382	-17.2	107	0.00	
4	C	vinyl chloride	0.321	0.362	-12.9	105	-0.02	
5		bromomethane	0.307	0.399	-29.9	119	0.00	
6	M	chloroethane	0.232	0.255	-10.2	101	0.00	
7		trichlorofluoromethane	0.584	0.711	-21.8	115	0.00	
8		1,1,2-trichloro1,2,2trifluo	0.836	0.795	4.9	92	0.00	
9	MC	1,1-dichloroethene	0.383	0.360	5.9	90	-0.02	
10		methylene chloride	0.420	0.408	2.8	93	-0.02	
11		MTBE	0.583	0.654	-12.1	101	0.00	
12		trans-1,2-dichloroethene	0.472	0.485	-2.9	98	0.00	
13	MP	1,1-dichloroethane	0.973	0.945	2.8	92	0.00	
14		2,2-dichloropropane	0.750	0.777	-3.6	97	-0.01	
[illegible]		cis-1,2-dichloroethene	0.567	0.519	8.3	84	-0.01	
[illegible]		bromochloromethane	0.260	0.263	-1.2	95	-0.02	
17	C	chloroform	0.941	0.906	3.7	92	-0.01	
18		1,1,1-trichloroethane	0.884	0.867	1.9	94	0.00	
19	S	1,2-dichloroethane-d4 SMC	0.385	0.390	-1.5	92	-0.01	
20		carbon tetrachloride	0.838	0.860	-2.7	96	0.00	
21		1,1-dichloropropene	0.826	0.820	0.7	94	0.00	
22	M	benzene	1.655	1.591	3.9	89	-0.02	
23		1,2-dichloroethane	0.408	0.416	-1.7	92	0.00	
24	I	1,4-difluorobenzene IS #	1.000	1.000	0.0	89	-0.02	
25	M	trichloroethene	0.322	0.323	-0.6	90	0.00	
26	C	1,2-dichloropropane	0.291	0.304	-4.3	95	0.00	
27		dibromomethane	0.128	0.130	-1.4	90	-0.03	
28	M	bromodichloromethane	0.409	0.403	1.5	92	-0.01	
29		2-CEVE	0.001	0.001	-2.9	87	-0.03	LR
30		trans-1,3-dichloropropene	0.236	0.232	1.6	92	-0.02	
31	S	toluene-d8 SMC	0.919	0.925	-0.7	90	0.00	
32	MC	toluene	0.556	0.541	2.6	89	-0.02	
33		cis-1,3-dichloropropene	0.351	0.353	-0.4	90	-0.02	
34		1,1,2-trichloroethane	0.142	0.144	-1.3	93	0.00	
35		tetrachloroethene	0.385	0.384	0.1	90	0.00	
36		1,3-dichloropropane	0.260	0.262	-0.9	89	0.00	
37		dibromochloromethane	0.279	0.285	-2.3	92	-0.01	
38		1,2-dibromoethane	0.198	0.200	-1.0	91	-0.01	
[illegible]	I	chlorobenzene-d5 IS # 3	1.000	1.000	0.0	90	0.00	
40	MP	chlorobenzene	2.597	2.468	5.0	89	0.00	
41		1,1,1,2-tetrachloroethane	1.155	1.075	6.9	85	-0.01	
42	C	ethylbenzene	4.190	3.917	6.5	87	-0.01	
43		m+p-xylene	1.534	1.493	2.7	89	-0.02	
44		o-xylene	1.545	1.444	6.6	90	0.00	

45		styrene	2.319	2.319	0.0	93	-0.02
46	P	bromoform	0.615	0.616	-0.1	91	0.00
47		isopropylbenzene	4.367	4.310	1.3	91	0.00
48	S	4-bromofluorobenzene SMC #	1.906	1.904	0.1	91	0.00
49		bromobenzene	1.153	1.097	4.8	92	0.00
50	P	1,1,2,2-tetrachloroethane	0.676	0.650	3.8	88	0.00
51		1,2,3-trichloropropane	0.475	0.448	5.6	93	0.02
52		n-propylbenzene	4.973	5.035	-1.2	94	0.00
53		2-chlorotoluene	3.307	3.057	7.6	84	0.00
54		4-chlorotoluene	3.145	3.111	1.1	90	-0.01
55		1,3,5-trimethylbenzene	3.361	3.190	5.1	89	0.00
56		tert-butylbenzene	3.851	3.670	4.7	90	0.00
57		1,2,4-trimethylbenzene	3.233	3.122	3.5	87	0.00
58		sec-butylbenzene	4.748	4.801	-1.1	93	0.00
59		1,3-dichlorobenzene	2.026	1.885	7.0	87	-0.01
60		4-isopropyltoluene	4.026	3.893	3.3	89	0.00
61	M	1,4-dichlorobenzene	1.853	1.947	-5.1	97	0.00
62		1,2-dichlorobenzene	1.630	1.547	5.1	89	0.00
63		n-butylbenzene	3.436	3.389	1.4	90	0.00
64		1,2-dibromo-3-chloropropane	0.130	0.127	2.3	91	-0.01
65		1,2,4-trichlorobenzene	1.280	1.257	1.7	95	-0.01
66		hexachlorobutadiene	1.337	1.336	0.0	100	0.00
67		naphthalene	1.151	1.151	-0.0	96	0.00
68		1,2,3-trichlorobenzene	1.061	1.030	2.9	94	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

17FEB07.D 82603.M Tue Feb 17 15:20:14 1998

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01368
Samples Received: 02/04/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/04/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LABORATORY REPORT FORM

Laboratory Name: BC Laboratories, Inc.

Address: 4100 Atlas Court, Bakersfield, CA 93308

Telephone: (805) 327-4911

Laboratory Certification (ELAP) No.: 1186 Expiration Date: 05/31/98

Laboratory Director's Name (Print): Dan Schultz

Laboratory Director's Signature:

Client: Alton Geoscience

Project No.: Unocal #4357

Analytical Method: (Circle One)	EPA 502.1	EPA 503.1	EPA 502.2	EPA 524.1
				EPA 524.2
	EPA 601	EPA 602		EPA 624
	EPA 8080	EPA 8020	EPA 8021	EPA 8240
				EPA 8260
Other				
Date Sampled:	1/29/98	1/29/98	1/29/98	
Date Received:	2/4/98	2/4/98	2/4/98	
Date Reported:	2/13/98	2/13/98	2/13/98	
Sample Matrix:	SOIL	SOIL	SOIL	
Extraction Method:	5030	5030	5030	
Extraction Material:	Inert Gas	Inert Gas	Inert Gas	

Chain of Custody Received: **Yes** No

Sample Condition: Samples received refrigerated and in good condition

-- Sample Headspace Description (%): 0.0

-- Sample Container Material: Soil Sleeve

ANALYTICAL TEST RESULT[a]

Reporting Unit (Circle One): ug/kg ug/L **mg/kg**

DATE ANALYZED		2/10/98	2/10/98	2/10/98	
DATE EXTRACTED		2/10/98	2/10/98	2/10/98	
DILUTION FACTOR		1	1	1	
LAB SAMPLE I.D.		MB	98-01368-1	98-01368-2	
CLIENT SAMPLE I.D.		Method Blank	B8-6.5	B8-114.75	
COMPOUND[b]	**MDL**	**MB**			
Bromobenzene	0.5	ND	NA	NA	
Bromodichloromethane	0.5	ND	NA	NA	
Bromoform	0.5	ND	NA	NA	
Bromomethane	0.5	ND	NA	NA	
Carbon tetrachloride	0.5	ND	NA	NA	
Chloroethane	0.5	ND	NA	NA	
Chloroform	0.5	ND	NA	NA	
1-Chlorohexane	NA	NA	NA	NA	
Chloromethane	0.5	ND	NA	NA	
Dibromochloromethane	0.5	ND	NA	NA	
Dibromomethane	0.5	ND	NA	NA	
Dichlorodifluoromethane	0.5	ND	NA	NA	
1,1-Dichloroethane (1,1-DCA)	0.5	ND	NA	NA	
1,2-Dichloroethane (1,2-DCA)	0.5	ND	NA	NA	
1,1-Dichloroethylene (1,1-DCE)	0.5	ND	NA	NA	
trans-1,2-Dichloroethylene	0.5	ND	NA	NA	
Dichloromethane	1.0	ND	NA	NA	
1,2-Dichloropropane	0.5	ND	NA	NA	
Total-1,3-Dichloropropylene	0.5	ND	NA	NA	
1,1,1,2-Tetrachloroethane	0.5	ND	NA	NA	
1,1,2,2-Tetrachloroethane	0.5	ND	NA	NA	
Tetrachloroethylene (PCE)	0.5	ND	NA	NA	
1,1,1-Trichloroethane (111-TCA)	0.5	ND	NA	NA	

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01368-1	98-01368-2	
1,1,2-Trichloroethane (112-TCA)	0.5	ND	NA	NA	
Trichloroethylene (TCE)	0.5	ND	NA	NA	
1,2,3-Trichloropropane	0.5	ND	NA	NA	
Trichlorofluoromethane	0.5	ND	NA	NA	
Vinyl chloride	0.5	ND	NA	NA	
Benzene	.002	ND	NA	NA	
Chlorobenzene	0.5	ND	NA	NA	
1,2-Dichlorobenzene	0.5	ND	NA	NA	
1,3-Dichlorobenzene	0.5	ND	NA	NA	
1,4-Dichlorobenzene	0.5	ND	NA	NA	
Methyl-t-butylether	.005	ND	.0017	ND	
Ethyl benzene	.002	ND	NA	NA	
Toluene	.002	ND	NA	NA	
Total-Xylenes	.005	ND	NA	NA	
Acetone	NA	NA	NA	NA	
Acrolein	NA	NA	NA	NA	
Acrylonitrile	NA	NA	NA	NA	
Bromochloromethane	0.5	ND	NA	NA	
n-Butylbenzene	0.5	ND	NA	NA	
sec-Butylbenzene	0.5	ND	NA	NA	
tert-Butylbenzene	0.5	ND	NA	NA	
2-Chloroethylvinyl ether	NA	NA	NA	NA	
2-Chlorotoluene	0.5	ND	NA	NA	
4-Chlorotoluene	0.5	ND	NA	NA	
cis-1,2-Dichloroethylene	0.5	ND	NA	NA	
1,3-Dichloropropane	0.5	ND	NA	NA	
2,2-Dichloropropane	0.5	ND	NA	NA	
1,1-Dichloropropylene	0.5	ND	NA	NA	
Ethylene dibromide (EDB)	NA	NA	NA	NA	
Hexachlorobutadiene	0.5	ND	NA	NA	

ANALYTICAL TEST RESULT (cont'd)

COMPOUND[b]	MDL	MB	98-01368-1	98-01368-2	
Isopropylbenzene	0.5	ND	NA	NA	
p-Isopropyltoluene	0.5	ND	NA	NA	
Methyl Isobutyl Ketone	NA	NA	NA	NA	
Methyl Isobutyl Ketone	NA	NA	NA	NA	
Naphthalene	0.5	ND	NA	NA	
n-Propylbenzene	0.5	ND	NA	NA	
Styrene	0.5	ND	NA	NA	
1,2,3-Trichlorobenzene	0.5	ND	NA	NA	
1,2,4-Trichlorobenzene	0.5	ND	NA	NA	
1,2,4-Trimethylbenzene	0.5	ND	NA	NA	
1,3,5-Trimethylbenzene	0.5	ND	NA	NA	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	ND	NA	NA	

SURROGATE	SPK CONC	ACP%	MB %RC	%RC	%RC	
1,2-Dichloroethane-d4	10	76-114	81	99	92	
Toluene-d8	10	88-110	97	93	98	
Bromofluorobenzene	10	86-115	86	82	96	

NOTES: [a] = Report Any Value ≥ MDL; [b] = Listed Compounds Are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining Compounds Identified by GC/MS.

SPK CONC = Spiking Concentration (≤5 x PQL);
ACP % = Acceptable Range of Percent; %RC = % Recovery

MDL = Method Detection Limit; MB = Method Blank;
ND = Not Detected (Below MDL); NA = Not Analyzed.

QA/QC REPORT

Reporting Unit (Circle One): **ug/kg** ug/L

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2/10/98
BATCH #: 1368-2
LAB SAMPLE I.D.: 10FEB03.D&10FEB04.D

ANALYTE	SPK CONC	MS	% MS	MSD	% MSD	RPD	ACP %MS	ACP RPD
Chloroethane	80	69	86	75	94	8	80-120	20
1,1-Dichloroethene	80	72	90	77	96	6	80-120	20
1,1-Dichloroethane	80	69	86	74	92	6	80-120	20
Benzene	80	76	95	78	98	3	80-120	20
Trichloroethene	80	82	102	84	105	3	80-120	20
Bromodichloromethane	80	76	95	76	95	0	80-120	20
Toluene	80	74	92	76	95	3	80-120	20
1,4-Dichlorobenzene	80	91	114	96	120	6	80-120	20
Chlorobenzene	80	83	104	86	108	4	80-120	20

II. Laboratory Quality Control Check Sample

DATE PERFORMED: 2/10/98
BATCH #: LCSW
LAB SAMPLE I.D.: 09FEB34.D

ANALYTE	SPK CONC	RESULT	%RECOVERY	ACP %
Vinyl Chloride	16.00	15.68	98	80-120
1,1-Dichloroethene	16.00	16.19	101	80-120
Chloroform	16.00	16.75	105	80-120
1,2-Dichloropropane	16.00	14.83	93	80-120
Bromoform	16.00	17.21	108	80-120
Chlorobenzene	16.00	17.37	108	80-120
1,1-Dichloroethane	16.00	14.90	93	80-120
1,1,2,2-Tetrachloroethane	16.00	17.79	111	80-120

ANALYST: SNM DATE: 2/10/98

III. Calibration Standard

SUPPLY SOURCE

DAILY
CALIBRATION
DATE:2/10/98

LIQUIDS(VO-5-1784)
ACCU STD.
LOT#A7030442
GASES(VO-5-1750)
ACCU STD.
LOT#A7080225

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
Bromobenzene				
Bromochloromethane				
Bromodichloromethane				
Bromoform◂				
Bromomethane	***PLEASE	SEE	ATTACHED	
Carbon tetrachloride	CALIBRATION	SHEETS*		
Chloroethane				
Chloroform*				
1-Chlorohexane				
Chloromethane◂				
Dibromochloromethane				
Dibromomethane				
Dichloromethane (Methylene Chloride)				
1,1-Dichloroethane◂ (1,1-DCA)				
1,2-Dichloroethane (1,2-DCA)				
1,1-Dichloroethylene* (1,1-DCE)				
trans-1,2-Dichloroethylene				
1,2-Dichloropropane*				
cis-1,3-Dichloropropylene				

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
trans-1,3-Dichloropropylene				
1,1,1,2-Tetrachloroethane				
1,1,2,2-Tetrachloroethane◂	***PLEASE	SEE	ATTACHED	
Tetrachloroethylene (PCE)	CALIBRATION	SHEETS*		
1,1,1-Trichloroethane (1,1,1-TCA)				
1,1,2-Trichloroethane (1,1,2-TCA)				
Trichloroethylene (TCE)				
1,2,3-Trichloropropane				
Trichlorofluoromethane				
Vinyl chloride* (VC)				
Benzene				
Chlorobenzene◂				
1,2-Dichlorobenzene				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Ethyl Benzene*				
Toluene*				
m,p-Xylenes				
o-Xylene				
Acetone				
Acrolein				
Acrylonitrile				
n-Butylbenzene				
sec-Butylbenzene				
tert-Butylbenzene				
2-Chloroethylvinyl ether				
2-Chlorotoluene				

III. Calibration Standard (cont'd)

COMPOUND[c]	INITIAL RF_{ave}	%RSD[d]	DAILY RF	%DIFF[e] w/RF_{ave}
4-Chlorotoluene				
Dichlorodifluoromethane				
cis-1,2-Dichloroethylene				
trans-1,2-Dichloroethylene	***PLEASE	SEE	ATTACHED	
1,3-Dichloropropane	CALIBRATION	SHEETS*		
2,2-Dichloropropane				
1,1-Dichloropropylene				
Ethylene dibromide (EDB)				
Hexachlorobutadiene				
Isopropylbenzene				
p-Isopropyltoluene				
Methyl Ethyl Ketone				
Methyl Isobutyl Ketone				
Naphthalene				
n-Propylbenzene				
Styrene				
1,2,3-Trichlorobenzene				
1,2,4-Trichlorobenzene				
1,2,4-Trimethylbenzene				
1,3,5-Trimethylbenzene				
1,1,2-Trichloro-1,2,2-trifluoroethane				

SPK CONC = Spiking Concentration (≤5 x PQL); PQL = Practical Quantitation Limit;
%MS = Percent Recovery of MS; %MSD = Percent Recovery of MSD; RPD = Relative Percent Difference;
ACP = Acceptable Range of Percent; INITIAL RF_{ave} = Average Response Factor From Initial Calibration;
DAILY RF = Response Factor From Daily Calibration; %RSD = Percent Relative Standard Deviation;
%DIFF = Percent Difference; c = Listed Compounds are Ordered by Laboratory Analytical Methods: Halogenated, Aromatic, then Remaining compounds Identified by GC/MS.
d = Value ≤10% for GC EPA Methods 500 & 600 Series, ≤20% for GC EPA Methods 8000 Series, ≤30% for GC/MS Methods.
e = Value ≤20% for GC EPA Methods 500 & 600 Series, ≤15% for GC EPA Methods 8000 Series, ≤25% for GC/MS Methods.
* = Calibration Check Compounds (CCC) for GC/MS Method;
◂ = System Performance Check Compounds (SPCC) for GC/Ms Method

III. Calibration Standard (cont'd)

REQUIREMENT

1. Indicate any modification made to the EPA Methods (e.g., testing constituent list, columns).
2. Provide details of corrective actions in any out of control events (e.g., re-calibration, blank contamination, etc.).
3. Co-elution must be resolved prior to reporting, except for xylenes.
4. Second column or MS confirmation must be performed for all compounds detected.
5. Analytical results are not to be blank adjusted.
6. Chemical standards for QC check samples and calibration should be obtained from different supply sources.
7. Any change of column, detector, chemical standard, etc. shall result in a new initial calibration.
8. Lowest concentration injected for initial calibration should not exceed three times of laboratory method detection limits.
9. Re-calibration is required whenever the RF from daily calibration is not within the range specified in item "e" above from initial calibration RF_{ave}.
10. Tentative identified compounds and all unidentified peaks must be reported.
11. Chromatogram for calibration standards, quality control check samples, and selected environmental samples must be submitted upon request.

[F:\WP60\DATA\DOCS\SHEILAH\LAFORMS\30998.8]

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB09\09FEB34.D Vial: 16
Acq On : 10 Feb 98 6:30 am Operator: m. chavez
Sample : CCV 76 VO-5-1919 Inst : GC/MS Ins
Misc : 25 ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 11:06:18 1997
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	67	0.00
2		Dichorodifluoromethane	0.825	0.847	-2.7	72	0.03
3	P	Chloromethane	0.362	0.348	3.9	68	0.03
4	C	Vinyl Chloride	0.496	0.486	2.0	70	0.03
5		Bromomethane	0.458	0.483	-5.5	75	0.03
6	M	Chloroethane	0.355	0.343	3.4	68	0.03
7		Trichlorofluoromethane	0.894	0.990	-10.7	77	0.03
8		1,1,2-Trichloro-1,2,2-Trifl	1.133	1.238	-9.3	77	0.00
9	MC	1,1-Dichloroethene	0.994	1.006	-1.2	71	0.03
10		Methylene Chloride	0.483	0.457	5.4	70	0.00
11		MTBE	0.882	0.807	8.5	67	0.03
12		T-1,2-Dichlrorethene	0.556	0.567	-2.0	74	0.00
13	MP	1,1-Dichloroethane	1.162	1.082	6.9	67	0.00
14		2,2-Dichloropropane	0.955	0.784	17.9	57	0.03
15		Cis-1,2-Dichloroethene	0.620	0.641	-3.4	73	0.00
16		Bromochloromethane	0.227	0.235	-3.5	78	0.00
17	C	Chloroform	1.072	1.122	-4.7	72	0.00
18		1,1,1-Trichloroethane	1.042	1.117	-7.2	74	0.00
19	S	1,2-Dichloroethane-d4 SMC 1	0.472	0.492	-4.2	71	0.00
20		Carbon Tetrachloride	0.871	0.977	-12.2	77	0.00
21		1,1-Dichloropropene	0.982	1.028	-4.7	72	0.00
22	M	Benzene	1.905	1.966	-3.2	72	0.00
23		1,2-Dichloroethane	0.543	0.567	-4.4	72	0.00
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	68	0.00
25	M	Trichloroethene	0.367	0.388	-5.7	73	0.00
26	C	1,2-Dichloropropane	0.341	0.316	7.3	66	0.03
27		Dibromomethane	0.158	0.162	-2.5	73	0.00
28	M	Bromodichloromethane	0.409	0.409	0.0	70	0.03
29		2-CEVE	0.038	0.000#	100.0#	0#	-0.27
30		T-1,3-Dichloropropene	0.373	0.316	15.3	58	0.00
31	S	Toluene-D8 SMC #1	1.040	1.033	0.7	68	0.03
32	M	Toluene	1.253	1.251	0.2	71	0.03
33		Cis-1,3-Dichloropropene	0.253	0.216	14.6	58	0.00
34		1,1,2-Trichloroethane	0.173	0.176	-1.7	71	0.00
35		Tetrachloroethene	0.387	0.446	-15.2	80	0.00
36		1,3-Dichloropropane	0.307	0.311	-1.3	72	0.00
37		Dibromochloromethane	0.197	0.215	-9.1	76	0.00
		1,2-Dibromoethane	0.170	0.171	-0.6	70	0.00
39	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	64	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB09\09FEB34.D Vial: 16
Acq On : 10 Feb 98 6:30 am Operator: m. chavez
Sample : CCV 76 VO-5-1919 Inst : GC/MS Ins
Misc : 25 ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 11:06:18 1997
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	M	Chlorobenzene	3.137	3.405	-8.5	72	0.03
41		1,1,1,2-Tetrachloroethane	1.136	1.232	-8.5	71	-0.03
42		Ethylbenzene	6.133	6.434	-4.9	69	-0.03
43		p+m-Xylene	4.885	5.397	-10.5	72	0.00
44		o-Xylene	4.459	4.874	-9.3	71	0.00
45		Styrene	2.807	3.033	-8.1	71	0.00
46	P	Bromoform	0.305	0.328	-7.5	70	0.00
47		Isopropylbenzene	5.560	6.516	-17.2	77	0.00
48	S	Bromofluorobenzene SMC #3	1.704	1.862	-9.3	71	0.03
49		Bromobenzene	1.031	1.244	-20.7#	81	-0.03
50		1,1,2,2-tetrachloroethane	0.644	0.716	-11.2	75	0.00
51		1,2,3-Trichloropropane	0.473	0.503	-6.3	73	0.00
52		N-Propylbenzene	6.843	7.898	-15.4	76	0.00
53		2-Chlorotoluene	4.513	5.335	-18.2	91	0.00
54		4-Chlorotoluene	3.761	3.971	-5.6	61	0.03
55		1,3,5-trimethylbenzene	4.246	5.004	-17.9	78	0.00
56		Tert-buthylbenzene	4.243	5.249	-23.7#	83	0.00
57		1,2,4-Trimethylbenzene	3.923	4.727	-20.5#	81	0.00
58		Sec-buthylbenzene	5.785	7.135	-23.3#	84	0.00
59		1,3-Dichlorobenzene	1.874	2.353	-25.6#	85	0.00
60		4-Isopropyltoluene	4.595	5.750	-25.1#	86	0.00
61	M	1,4-Dichlorobenzene (M)	1.828	2.347	-28.4#	88	0.00
62		1,2-Dichlorobenzene	1.428	1.844	-29.1#	89	0.00
63		N-buthylbenzene	4.805	6.118	-27.3#	88	0.00
64		1,2-dibromo-3-chloropopane	0.072	0.068#	5.6	64	0.00
65		1,2,4-Trichlorobenzene	0.850	1.160	-36.5#	96	0.00
66		Hexachlorobutadiene	0.903	1.218	-34.9#	110	0.03
67		Naphthalene	0.741	1.073	-44.8#	93	0.00 L.2
68		1,2,3-Trichlorobenzene	0.602	0.900	-49.5#	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB10\10FEB16.D Vial: 15
Acq On : 10 Feb 98 5:29 pm Operator: S MAURER
Sample : CCV 77 VO-5-1919 Inst : GC/MS Ins
Misc : 25 ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 11:06:18 1997
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	76	0.03
2		Dichorodifluoromethane	0.825	0.741	10.2	71	0.03
3	P	Chloromethane	0.362	0.375	-3.6	83	0.03
4	C	Vinyl Chloride	0.496	0.434	12.5	71	0.03
5		Bromomethane	0.458	0.441	3.7	78	0.03
6	M	Chloroethane	0.355	0.316	11.0	71	0.03
7		Trichlorofluoromethane	0.894	0.902	-0.9	80	0.03
8		1,1,2-Trichloro-1,2,2-Trifl	1.133	1.162	-2.6	82	0.00
9	MC	1,1-Dichloroethene	0.994	0.913	8.1	73	0.03
10		Methylene Chloride	0.483	0.434	10.1	75	0.03
11		MTBE	0.882	0.766	13.2	72	0.03
12		T-1,2-Dichlrorethene	0.556	0.532	4.3	79	0.00
13	MP	1,1-Dichloroethane	1.162	1.027	11.6	72	0.03
[illegible]		2,2-Dichloropropane	0.955	0.887	7.1	73	0.03
15		Cis-1,2-Dichloroethene	0.620	0.583	6.0	75	0.00
16		Bromochloromethane	0.227	0.210	7.5	79	0.00
17	C	Chloroform	1.072	1.072	0.0	78	0.03
18		1,1,1-Trichloroethane	1.042	1.009	3.2	76	0.00
19	S	1,2-Dichloroethane-d4 SMC 1	0.472	0.468	0.8	77	0.03
20		Carbon Tetrachloride	0.871	0.879	-0.9	79	0.00
21		1,1-Dichloropropene	0.982	0.918	6.5	73	0.03
22	M	Benzene	1.905	1.725	9.4	71	0.03
23		1,2-Dichloroethane	0.543	0.512	5.7	74	-0.02
24	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	76	0.00
25	M	Trichloroethene	0.367	0.361	1.6	75	0.00
26	C	1,2-Dichloropropane	0.341	0.294	13.8	68	0.03
27		Dibromomethane	0.158	0.153	3.2	77	0.00
28	M	Bromodichloromethane	0.409	0.403	1.5	77	0.03
29		2-CEVE	0.038	0.000#	100.0#	0#	-0.10
30		T-1,3-Dichloropropene	0.373	0.299	19.8	61	0.03
31	S	Toluene-D8 SMC #1	1.040	1.032	0.8	75	0.03
32	M	Toluene	1.253	1.151	8.1	73	0.03
33		Cis-1,3-Dichloropropene	0.253	0.213	15.8	64	0.03
34		1,1,2-Trichloroethane	0.173	0.165	4.6	74	0.00
35		Tetrachloroethene	0.387	0.404	-4.4	81	0.03
36		1,3-Dichloropropane	0.307	0.282	8.1	72	-0.02
37		Dibromochloromethane	0.197	0.214	-8.6	84	0.00
[illegible]		1,2-Dibromoethane	0.170	0.165	2.9	75	0.00
39	I	Chlorobenzene-D5-IS#3	1.000	1.000	0.0	78	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\FEB98\FEB10\10FEB16.D Vial: 15
Acq On : 10 Feb 98 5:29 pm Operator: S MAURER
Sample : CCV 77 VO-5-1919 Inst : GC/MS Ins
Misc : 25 ML Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 11:06:18 1997
Response via : Multiple Level Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	M	Chlorobenzene	3.137	3.028	3.5	78	0.00
41		1,1,1,2-Tetrachloroethane	1.136	1.120	1.4	79	0.00
42		Ethylbenzene	6.133	5.753	6.2	75	0.00
43		p+m-Xylene	4.885	4.637	5.1	75	0.00
44		o-Xylene	4.459	4.145	7.0	73	0.00
45		Styrene	2.807	2.639	6.0	75	0.00
46	P	Bromoform	0.305	0.302	1.0	79	0.00
47		Isopropylbenzene	5.560	5.635	-1.3	81	0.00
48	S	Bromofluorobenzene SMC #3	1.704	1.694	0.6	79	0.03
49		Bromobenzene	1.031	1.037	-0.6	82	0.00
50		1,1,2,2-tetrachloroethane	0.644	0.512	20.5#	66	0.00
51		1,2,3-Trichloropropane	0.473	0.471	0.4	83	0.03
52		N-Propylbenzene	6.843	6.961	-1.7	82	0.00
53		2-Chlorotoluene	4.513	4.225	6.4	88	0.00
54		4-Chlorotoluene	3.761	3.776	-0.4	71	0.00
55		1,3,5-trimethylbenzene	4.246	4.365	-2.8	83	0.00
56		Tert-buthylbenzene	4.243	4.488	-5.8	86	0.00
57		1,2,4-Trimethylbenzene	3.923	4.022	-2.5	84	0.00
58		Sec-buthylbenzene	5.785	5.874	-1.5	85	0.03
59		1,3-Dichlorobenzene	1.874	1.902	-1.5	83	0.00
60		4-Isopropyltoluene	4.595	4.845	-5.4	88	0.00
61	M	1,4-Dichlorobenzene (M)	1.828	1.913	-4.6	88	0.00
62		1,2-Dichlorobenzene	1.428	1.518	-6.3	89	0.00
63		N-buthylbenzene	4.805	5.101	-6.2	90	0.00
64		1,2-dibromo-3-chloropopane	0.072	0.060#	16.7	69	0.03
65		1,2,4-Trichlorobenzene	0.850	0.954	-12.2	96	0.00
66		Hexachlorobutadiene	0.903	1.010	-11.8	111	0.03
67		Naphthalene	0.741	0.873	-17.8	93	0.00 L.2
68		1,2,3-Trichlorobenzene	0.602	0.731	-21.4#	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\8260MSWSL.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 09:50:30 1997
Response via : Initial Calibration

Liquids (10-5-1993) Absolute std lot # 090297
Gases (10-5-1997) Accustd lot # A7080342

Calibration Files
3.2 =23DEC11.D 8.0 =23DEC12.D 16.0 =23DEC13.D
24.0 =23DEC14.D 32.0 =23DEC15.D

		Compound	3.2	8.0	16.0	24.0	32.0	Avg	%RSD
1)	I	Pentafluorobenzene I	ISTD						
2)		Dichorodifluoromethan	0.895	0.855	0.789	0.825	0.763	0.825	6.34
3)	P	Chloromethane	0.353	0.333	0.342	0.417	0.365	0.362	9.12
4)	C	Vinyl Chloride	0.553	0.511	0.464	0.494	0.455	0.496	7.98
5)		Bromomethane	0.493	0.466	0.431	0.473	0.430	0.458	6.02
6)	M	Chloroethane	0.385	0.357	0.339	0.357	0.336	0.355	5.51
7)		Trichlorofluoromethan	0.973	0.896	0.859	0.897	0.846	0.894	5.54
8)		1,1,2-Trichloro-1,2,2	1.240	1.154	1.080	1.126	1.063	1.133	6.19
9)	MC	1,1-Dichloroethene	1.068	0.992	0.949	1.012	0.947	0.994	5.06
.0)		Methylene Chloride	0.550	0.477	0.437	0.482	0.470	0.483	8.55
.1)		MTBE	0.951	0.841	0.803	0.922	0.893	0.882	6.82
.2)		T-1,2-Dichlrorethene	0.611	0.546	0.513	0.566	0.544	0.556	6.45
.3)	MP	1,1-Dichloroethane	1.261	1.174	1.078	1.154	1.144	1.162	5.67
.4)		2,2-Dichloropropane	1.012	0.959	0.927	0.948	0.927	0.955	3.67
.5)		Cis-1,2-Dichloroethen	0.662	0.613	0.591	0.619	0.616	0.620	4.14
.6)		Bromochloromethane	0.222	0.205	0.202	0.221	0.284	0.227	14.73
.7)	C	Chloroform	1.139	1.050	1.040	1.065	1.065	1.072	3.63
.8)		1,1,1-Trichloroethane	1.109	1.028	1.005	1.048	1.018	1.042	3.92
.9)		1,2-Dichloroethane-d4	0.436	0.456	0.462	0.511	0.497	0.472	6.52
0)		Carbon Tetrachloride	0.886	0.865	0.845	0.885	0.873	0.871	1.93
1)		1,1-Dichloropropene	1.059	0.990	0.960	0.977	0.926	0.982	5.01
2)	M	Benzene	2.049	1.894	1.834	1.873	1.876	1.905	4.38
3)		1,2-Dichloroethane	0.570	0.543	0.525	0.552	0.524	0.543	3.52
4)	I	1,4-Difluorobenzene	ISTD						
5)	M	Trichloroethene	0.406	0.367	0.364	0.348	0.351	0.367	6.24
6)	C	1,2-Dichloropropane	0.368	0.346	0.328	0.330	0.333	0.341	4.89
7)		Dibromomethane	0.165	0.156	0.152	0.160	0.156	0.158	3.15
8)	M	Bromodichloromethane	0.395	0.394	0.400	0.421	0.433	0.409	4.26
9)		2-CEVE	0.036	0.034	0.040	0.041	0.040	0.038	8.04
0)		T-1,3-Dichloropropene	0.359	0.363	0.373	0.382	0.390	0.373	3.38
1)	S	Toluene-D8 SMC #1	1.061	1.042	1.044	1.029	1.023	1.040	1.41
2)	M	Toluene	1.413	1.267	1.206	1.180	1.198	1.253	7.61
3)		Cis-1,3-Dichloroprope	0.237	0.239	0.253	0.270	0.268	0.253	6.05
4)		1,1,2-Trichloroethane	0.182	0.171	0.169	0.172	0.170	0.173	3.07
5)		Tetrachloroethene	0.416	0.393	0.380	0.375	0.369	0.387	4.85
6)		1,3-Dichloropropane	0.323	0.302	0.296	0.308	0.309	0.307	3.23
7)		Dibromochloromethane	0.177	0.184	0.194	0.211	0.220	0.197	9.04
8)		1,2-Dibromoethane	0.174	0.157	0.167	0.178	0.174	0.170	4.88
9)	I	Chlorobenzene-D5 IS#3	ISTD						
0)	M	Chlorobenzene	3.385	3.261	3.028	2.952	3.060	3.137	5.72
1)		1,1,1,2-Tetrachloroet	1.148	1.139	1.110	1.127	1.157	1.136	1.61
2)		Ethylbenzene	6.554	6.299	6.005	6.066	5.740	6.133	5.03
3)		p+m-Xylene	5.297	5.146	4.831	4.575	4.579	4.885	6.72
4)		o-Xylene	4.598	4.556	4.402	4.365	4.373	4.459	2.46
5)		Styrene	2.849	2.797	2.749	2.824	2.815	2.807	1.33
6)	P	Bromoform	0.267	0.279	0.299	0.337	0.344	0.305	11.26
7)		Isopropylbenzene	5.722	5.772	5.414	5.529	5.362	5.560	3.27

48)		Dibromochloromethane	1.678	1.718	1.676	1.760	1.690	1.704	2.07
49)		Bromobenzene	1.095	1.063	0.883	1.090	[illegible]	[illegible]	[illegible]
50)		1,1,2,2-Tetrachloroet	0.652	0.638	0.607	0.649	0.649	0.634	3.68
51)		1,2,3-Trichloropropan	0.512	0.449	0.441	0.504	0.459	0.473	6.90
52)		N-Propylbenzene	7.264	7.190	6.645	6.692	6.422	6.843	5.36
53)		2-Chlorotoluene	5.114	4.918	3.763	4.335	4.434	4.513	11.75
54)		4-Chlorotoluene	3.745	3.641	4.159	3.807	3.456	3.761	6.88
55)		1,3,5-trimethylbenzen	4.448	4.389	4.100	4.181	4.112	4.246	3.82
56)		Tert-buthylbenzene	4.412	4.407	4.052	4.221	4.125	4.243	3.85
57)		1,2,4-Trimethylbenzen	4.095	4.038	3.749	3.894	3.842	3.923	3.62
58)		Sec-buthylbenzene	6.131	6.082	5.416	5.762	5.532	5.785	5.53
59)		1,3-Dichlorobenzene	2.032	1.905	1.777	1.825	1.830	1.874	5.32
60)		4-Isopropyltoluene	4.868	4.790	4.298	4.557	4.463	4.595	5.10
61)	M	1,4-Dichlorobenzene	1.969	1.883	1.703	1.814	1.773	1.828	5.58
62)		1,2-Dichlorobenzene	1.556	1.413	1.334	1.433	1.403	1.428	5.65
63)		N-buthylbenzene	5.024	5.134	4.436	4.776	4.653	4.805	5.85
64)		1,2-dibromo-3-chlorop	0.072	0.072	0.068	0.077	0.072	0.072	4.49
65)		1,2,4-Trichlorobenzen	0.811	0.888	0.776	0.889	0.887	0.850	6.23
66)		Hexachlorobutadiene	0.995	1.027	0.709	0.888	0.896	0.903	13.74
67)		Naphthalene	0.523	0.717	0.735	0.858	0.871	0.741	18.93 L.R
68)		1,2,3-Trichlorobenzen	0.521	0.636	0.543	0.656	0.654	0.602	10.79

(#) = Out of Range

8260MSV1.M Wed Dec 24 10:26:01 1997

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\DEC97\DEC23\23DEC97.D Vial: 15

Acq On : 24 Dec 97 1:37 am
Sample : ICV A 16.0 UG/L
Misc : 25 ML
MS Integration Params: RTEINT.P

Operator: M. CHAVEZ
Inst : GC/MS Ins
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\8260MSV1.M (RTE Integrator)
Title : EPA 524.2/8260 BY GC\MS VOLATILES
Last Update : Wed Dec 24 10:28:31 1997
Response via : Multiple Level Calibration

Liquids (vo-5-1784) Accustd Lot # A7030442
Gases (vo-5-1750) Accustd Lot # A7080225

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene IS #1	1.000	1.000	0.0	102	0.00
2		Dichorodifluoromethane	0.825	0.817	1.0	106	0.00
3	P	Chloromethane	0.362	0.361	0.3	108	0.00
4	C	Vinyl Chloride	0.496	0.513	-3.4	113	0.00
5		Bromomethane	0.458	0.525	-14.6	125	0.00
6	M	Chloroethane	0.355	0.375	-5.6	113	0.00
7		Trichlorofluoromethane	0.894	1.058	-18.3	126	0.00
8		1,1,2-Trichloro-1,2,2-Trifl	1.133	1.119	1.2	106	0.00
9	MC	1,1-Dichloroethene	0.994	0.930	6.4	100	0.00
.0		Methylene Chloride	0.483	0.448	7.2	105	0.00
.1		MTBE	0.882	0.824	6.6	105	0.00
.2		T-1,2-Dichlrorethene	0.556	0.566	-1.8	113	0.00
.3	MP	1,1-Dichloroethane	1.162	1.070	7.9	102	0.00
.4		2,2-Dichloropropane	0.955	0.990	-3.7	109	0.00
.5		Cis-1,2-Dichloroethene	0.620	0.548	11.6	95	0.00
.6		Bromochloromethane	0.227	0.206	9.3	105	-0.02
.7	C	Chloroform	1.072	1.035	3.5	102	0.00
.8		1,1,1-Trichloroethane	1.042	1.021	2.0	104	0.00
.9	S	1,2-Dichloroethane-d4 SMC 1	0.472	0.432	8.5	96	0.00
0		Carbon Tetrachloride	0.871	0.881	-1.1	107	0.00
1		1,1-Dichloropropene	0.982	0.955	2.7	102	0.00
2	M	Benzene	1.905	1.824	4.3	102	0.00
3		1,2-Dichloroethane	0.543	0.501	7.7	98	-0.02
4	I	1,4-Difluorobenzene IS # 2	1.000	1.000	0.0	97	0.00
5	M	Trichloroethene	0.367	0.353	3.8	94	0.00
6	C	1,2-Dichloropropane	0.341	0.334	2.1	99	0.00
7		Dibromomethane	0.158	0.154	2.5	98	0.00
8	M	Bromodichloromethane	0.409	0.390	4.6	95	0.00
9		2-CEVE	0.038	0.035	7.9	85	0.00
0		T-1,3-Dichloropropene	0.373	0.359	3.8	94	0.00
1	S	Toluene-D8 SMC #1	1.040	1.061	-2.0	99	0.03
2	M	Toluene	1.253	1.176	6.1	95	0.00
3		Cis-1,3-Dichloropropene	0.253	0.236	6.7	91	0.03
4		1,1,2-Trichloroethane	0.173	0.164	5.2	94	-0.02
5		Tetrachloroethene	0.387	0.375	3.1	96	0.00
6		1,3-Dichloropropane	0.307	0.293	4.6	96	0.00
7		Dibromochloromethane	0.197	0.195	1.0	98	0.00
8		1,2-Dibromoethane	0.170	0.159	6.5	93	0.00
9	I	Chlorobenzene-D5 IS#3	1.000	1.000	0.0	92	0.03
0	M	Chlorobenzene	3.137	2.982	4.9	90	0.00
1		1,1,1,2-Tetrachloroethane	1.136	1.116	1.8	92	0.00
2		Ethylbenzene	6.133	5.860	4.5	90	0.00
3		p+m-Xylene	4.885	4.868	0.3	93	0.00

14		O-Xylene	4.459	4.371	2.0	91	0.00	
15		Benzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
16	P	Bromoform	0.805	0.818	-2.6	96	0.00	
17		Isopropylbenzene	5.560	5.760	-3.6	98	0.00	
18	S	Bromofluorobenzene SMC #3	1.704	1.733	-1.7	95	0.03	
19		Bromobenzene	1.031	1.027	0.4	96	0.00	
50		1,1,2,2-tetrachloroethane	0.644	0.645	-0.2	98	0.00	
51		1,2,3-Trichloropropane	0.473	0.480	-1.5	100	0.00	
52		N-Propylbenzene	6.843	7.213	-5.4	100	0.00	
53		2-Chlorotoluene	4.513	4.779	-5.9	117	0.00	
54		4-Chlorotoluene	3.761	3.438	8.6	76	0.00	
55		1,3,5-trimethylbenzene	4.246	4.224	0.5	95	0.00	
56		Tert-buthylbenzene	4.243	4.322	-1.9	98	0.00	
57		1,2,4-Trimethylbenzene	3.923	3.951	-0.7	97	0.00	
58		Sec-buthylbenzene	5.785	5.994	-3.6	102	0.00	
59		1,3-Dichlorobenzene	1.874	1.831	2.3	95	0.00	
60		4-Isopropyltoluene	4.595	4.652	-1.2	99	0.00	
61	M	1,4-Dichlorobenzene (M)	1.828	1.844	-0.9	99	0.00	
62		1,2-Dichlorobenzene	1.428	1.366	4.3	94	0.00	
63		N-buthylbenzene	4.805	4.993	-3.9	103	0.00	
64		1,2-dibromo-3-chloropopane	0.072	0.068	5.6	92	0.00	
65		1,2,4-Trichlorobenzene	0.850	0.809	4.8	96	0.00	
66		Hexachlorobutadiene	0.903	0.853	5.5	110	0.00	
67		Naphthalene	0.741	0.733	1.1	92	-0.02	E.2
68		1,2,3-Trichlorobenzene	0.602	0.589	2.2	100	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

23DEC13.D 8260MSV1.M Wed Dec 24 10:32:19 1997

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01372
Samples Received: 02/04/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/04/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	98
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	DATE EXTRACTED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	LAB SAMPLE I.D.	MB	98-01372-9	98-01372-12	98-01372-14	98-01372-15
	CLIENT SAMPLE I.D.		MW2-99.75	MW2-104.25	MW2-109.25	MW2-114.5
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	POL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	.0011	.0019	ND
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	105	97	90	96

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V1
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
.		1-10 min	3rd conc 16	3696	2.31E+02		
.		1-10 min	4th conc 19.2	4416	2.30E+02		
.		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
		1-10 min	16.0	3520	2.20E+02		
		1-10 min	19.2	4128	2.15E+02		
		1-10 min	32.0	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	16	3765	2.35E+02	4.30	15
Compound 2 Toluene	FID	1-10 min	16	3401	2.13E+02	2.24	15
Compound k Ethyl Benzene	FID	1-10 min	16	2659	1.66E+02	6.94	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.3	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-butylether	FID	1-10 min	2nd conc 6.6	460.02	6.97E+01		
		1-10 min	3rd conc 16.5	1291.95	7.83E+01		
		1-10 min	4th conc 19.8	1425.6	7.20E+01		
		1-10 min	5th conc 33	2557.5	7.75E+01		
Compound 2		1-10 min	3.3	659.2	2.06E+02	2.26E+02	5.88
Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
		1-10 min	16	3776	2.36E+02		
		1-10 min	19.2	4492.8	2.34E+02		
		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
.		1-10 min	3rd conc 16	3600	2.25E+02		
.		1-10 min	4th conc 19.2	4108.8	2.14E+02		
.		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	16	1137	7.11E+01	2.13	15
Compound 2 P&M Xylenes	FID	1-10 min	32	7613	2.38E+02	5.48	15
TPH gas	FID	1-10 min	612.8	15065	2.46E+01	13.61	15
Compound k O-Xylenes	FID	1-10 min	16	3654	2.28E+02	6.52	15

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	1-10 min	2nd conc 624.8	16971	2.72E+01		
		1-10 min	3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver1.04)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED		2/18/98	2/18/98	2/18/98	2/18/98	
	DATE EXTRACTED		2/18/98	2/18/98	2/18/98	2/18/98	
	LAB SAMPLE I.D.		MB	98-01372-20	98-01372-22	98-01372-23	
	CLIENT SAMPLE I.D.			MW2-140.0	MW2-144.0	MW2-145.4	
	EXTRACTION SOLVENT			TEG	TEG	TEG	
	EXTRACTION METHOD		5030	5030	5030	5030	
	DILUTION FACTOR		1	1	1	1	
COMPOUND	PQL						
Benzene	.002		ND	ND	.0011	ND	
Toluene	.002		ND	.0042	ND	ND	
Ethyl Benzene	.002		ND	.0017	ND	ND	
Methyl-t-butylether	.005		ND	ND	ND	ND	
Total Xylenes	.005		ND	.0030	ND	ND	
TPH gas	.5		ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	72	115	92	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V1
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
.		1-10 min	3rd conc 16	3696	2.31E+02		
.		1-10 min	4th conc 19.2	4416	2.30E+02		
.		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
		1-10 min	16.0	3520	2.20E+02		
		1-10 min	19.2	4128	2.15E+02		
		1-10 min	32.0	6976	2.18E+02		
ompound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	16	3765	2.35E+02	4.30	15
Compound 2 Toluene	FID	1-10 min	16	3401	2.13E+02	2.24	15
Compound k Ethyl Benzene	FID	1-10 min	16	2659	1.66E+02	6.94	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.3	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-butylether	FID	1-10 min	2nd conc 6.6	460.02	6.97E+01		
		1-10 min	3rd conc 16.5	1291.95	7.83E+01		
		1-10 min	4th conc 19.8	1425.6	7.20E+01		
		1-10 min	5th conc 33	2557.5	7.75E+01		
Compound 2		1-10 min	3.3	659.2	2.06E+02	2.26E+02	5.88
Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
		1-10 min	16	3776	2.36E+02		
		1-10 min	19.2	4492.8	2.34E+02		
		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
.		1-10 min	3rd conc 16	3600	2.25E+02		
.		1-10 min	4th conc 19.2	4108.8	2.14E+02		
.		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	16	1137	7.11E+01	2.13	15
Compound 2 P&M Xylenes	FID	1-10 min	32	7613	2.38E+02	5.48	15
TPH gas	FID	1-10 min	612.8	15065	2.46E+01	13.61	15
Compound k O-Xylenes	FID	1-10 min	16	3654	2.28E+02	6.52	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	1-10 min	2nd conc 624.8	16971	2.72E+01		
		1-10 min	3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/18/98	2/18/98	2/18/98	2/18/98	2/18/98
	DATE EXTRACTED	2/18/98	2/18/98	2/18/98	2/18/98	2/18/98
	LAB SAMPLE I.D.	MB	98-01372-16	98-01372-17	98-01372-18	98-01372-19
	CLIENT SAMPLE I.D.		MW2-119.25	MW2-124.25	MW2-129.50	MW2-134.5
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	POL					
Benzene	.002	ND	ND	.0012	ND	ND
Toluene	.002	ND	ND	.0010	ND	.0010
Ethyl Benzene	.002	ND	ND	.0012	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	100	100	102	72

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V1
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
.		1-10 min	3rd conc 16	3696	2.31E+02		
.		1-10 min	4th conc 19.2	4416	2.30E+02		
.		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
		1-10 min	16.0	3520	2.20E+02		
		1-10 min	19.2	4128	2.15E+02		
		1-10 min	32.0	6976	2.18E+02		
ompound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	16	3765	2.35E+02	4.30	15
Compound 2 Toluene	FID	1-10 min	16	3401	2.13E+02	2.24	15
Compound k Ethyl Benzene	FID	1-10 min	16	2659	1.66E+02	6.94	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.3	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-butylether	FID	1-10 min	2nd conc 6.6	460.02	6.97E+01		
		1-10 min	3rd conc 16.5	1291.95	7.83E+01		
		1-10 min	4th conc 19.8	1425.6	7.20E+01		
		1-10 min	5th conc 33	2557.5	7.75E+01		
Compound 2		1-10 min	3.3	659.2	2.06E+02	2.26E+02	5.88
Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
		1-10 min	16	3776	2.36E+02		
		1-10 min	19.2	4492.8	2.34E+02		
		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
.		1-10 min	3rd conc 16	3600	2.25E+02		
.		1-10 min	4th conc 19.2	4108.8	2.14E+02		
.		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	16	1137	7.11E+01	2.13	15
Compound 2 P&M Xylenes	FID	1-10 min	32	7613	2.38E+02	5.48	15
TPH gas	FID	1-10 min	612.8	15065	2.46E+01	13.61	15
Compound k O-Xylenes	FID	1-10 min	16	3654	2.28E+02	6.52	15

QA/QC REPORT

1. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	1-10 min	2nd conc 624.8	16971	2.72E+01		
		1-10 min	3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	DATE EXTRACTED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	LAB SAMPLE I.D.	MB	98-01372-5	98-01372-6	98-01372-7	98-01372-8
	CLIENT SAMPLE I.D.		MW2-79.5	MW2-84.75	MW2-89.5	MW2-94.5
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	ND	ND	ND
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	90	105	102	103

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
.		1-10 min	3rd conc 16	3696	2.31E+02		
.		1-10 min	4th conc 19.2	4416	2.30E+02		
.		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
		1-10 min	16.0	3520	2.20E+02		
		1-10 min	19.2	4128	2.15E+02		
		1-10 min	32.0	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	16	3765	2.35E+02	4.30	15
Compound 2 Toluene	FID	1-10 min	16	3401	2.13E+02	2.24	15
Compound k Ethyl Benzene	FID	1-10 min	16	2659	1.66E+02	6.94	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1 Methyl-t-butylether	FID	1-10 min	1st conc 3.3	216.48	6.56E+01	7.26E+01	7.32
		1-10 min	2nd conc 6.6	460.02	6.97E+01		
		1-10 min	3rd conc 16.5	1291.95	7.83E+01		
		1-10 min	4th conc 19.8	1425.6	7.20E+01		
		1-10 min	5th conc 33	2557.5	7.75E+01		
Compound 2 Xylenes	FID	1-10 min	3.3	659.2	2.06E+02	2.26E+02	5.88
		1-10 min	6.4	1395.2	2.18E+02		
		1-10 min	16	3776	2.36E+02		
		1-10 min	19.2	4492.8	2.34E+02		
		1-10 min	32	7488	2.34E+02		
Compound k O-Xylene	FID	1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
		1-10 min	2nd conc 6.4	1312	2.05E+02		
		1-10 min	3rd conc 16	3600	2.25E+02		
		1-10 min	4th conc 19.2	4108.8	2.14E+02		
		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	16	1137	7.11E+01	2.13	15
Compound 2 P&M Xylenes	FID	1-10 min	32	7613	2.38E+02	5.48	15
TPH gas	FID	1-10 min	612.8	15065	2.46E+01	13.61	15
Compound k O-Xylenes	FID	1-10 min	16	3654	2.28E+02	6.52	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

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QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	1-10 min	2nd conc 624.8	16971	2.72E+01		
		1-10 min	3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	D Schultz
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	DATE EXTRACTED	2/17/98	2/17/98	2/17/98	2/17/98	2/17/98
	LAB SAMPLE I.D.	MB	98-01372-1	98-01372-2	98-01372-3	98-01372-4
	CLIENT SAMPLE I.D.		MW2-59.5	MW2-64.75	MW2-69.75	MW2-74.5
	EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	.0026	ND	ND
Ethyl Benzene	.002	ND	ND	ND	.0011	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	.0033	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	73	73	104	82

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
.		1-10 min	3rd conc 16	3696	2.31E+02		
.		1-10 min	4th conc 19.2	4416	2.30E+02		
.		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
		1-10 min	16.0	3520	2.20E+02		
		1-10 min	19.2	4128	2.15E+02		
		1-10 min	32.0	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	16	3765	2.35E+02	4.30	15
Compound 2 Toluene	FID	1-10 min	16	3401	2.13E+02	2.24	15
Compound k Ethyl Benzene	FID	1-10 min	16	2659	1.66E+02	6.94	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.3	216.48	6.56E+01	7.26E+01	7.32
Methyl-t-butylether	FID	1-10 min	2nd conc 6.6	460.02	6.97E+01		
		1-10 min	3rd conc 16.5	1291.95	7.83E+01		
		1-10 min	4th conc 19.8	1425.6	7.20E+01		
		1-10 min	5th conc 33	2557.5	7.75E+01		
Compound 2		1-10 min	3.2	659.2	2.06E+02	2.26E+02	5.88
Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
		1-10 min	16	3776	2.36E+02		
		1-10 min	19.2	4492.8	2.34E+02		
		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
.		1-10 min	3rd conc 16	3600	2.25E+02		
.		1-10 min	4th conc 19.2	4108.8	2.14E+02		
.		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	16	1137	7.11E+01	2.13	15
Compound 2 P&M Xylenes	FID	1-10 min	32	7613	2.38E+02	5.48	15
TPH gas	FID	1-10 min	612.8	15065	2.46E+01	13.61	15
Compound k O-Xylenes	FID	1-10 min	16	3654	2.28E+02	6.52	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

F:WP60DATA\DOCS\SHEILAH\LAFORMS\31098.6

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	1-10 min	2nd conc 624.8	16971	2.72E+01		
		1-10 min	3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site # 4357

Date(s) Sampled:	2/4/98	To	
Date(s) Received:	2/4/98	To	
Date(s) Reported:	2/23/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/14/98	2/14/98	2/14/98	2/14/98	2/14/98
	DATE EXTRACTED	2/14/98	2/14/98	2/14/98	2/14/98	2/14/98
	LAB SAMPLE I.D.	MB	98-01372-10	98-01372-11	98-01372-13	98-01372-TB
	CLIENT SAMPLE I.D.		MW2-FB07	MW2-ER07	RIG-11SW	MW2-TB07
	EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	INERT GAS
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	.5	ND	ND	ND	ND	ND
Toluene	.5	ND	ND	ND	.09	ND
Ethyl Benzene	.5	ND	ND	ND	ND	ND
Methyl-t-butylether	2.0	ND	ND	ND	ND	ND
Total Xylenes	1.0	ND	ND	ND	ND	ND
TPH gas	50	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	88	91	85	70	80

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-23-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	2940.8	9.19E+02	8.76E+02	4.36
Benzene	FID	1-10 min	2nd conc 6.4	5798.4	9.06E+02		
.		1-10 min	3rd conc 16	14048	8.78E+02		
.		1-10 min	4th conc 19.2	16320	8.50E+02		
.		1-10 min	5th conc 32	26432	8.26E+02		
Compound 2		1-10 min	3.2	2451.2	7.66E+02	7.81E+02	2.74
Toluene	FID	1-10 min	6.4	5100.8	7.97E+02		
		1-10 min	16.0	12912	8.07E+02		
		1-10 min	19.2	15033.6	7.83E+02		
		1-10 min	32.0	24160	7.55E+02		
ompound k		1-10 min	1st conc 3.2	2361.6	7.38E+02	7.09E+02	10.44
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	4857.6	7.59E+02		
		1-10 min	3rd conc 16	11888	7.43E+02		
		1-10 min	4th conc 19.2	13977.6	7.28E+02		
		1-10 min	5th conc 32	18496	5.78E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min	6.4	12316	7.70E+02	12.12	15
Compound 2 Toluene	FID	1-10 min	6.4	11126	6.95E+02	11.01	15
Compound k Ethyl Benzene	FID	1-10 min	6.4	10921	6.83E+02	3.77	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	1241.6	3.88E+02	3.46E+02	14.41
Methyl-t-butylether	FID	1-10 min	2nd conc 6.4	2412.8	3.77E+02		
		1-10 min	3rd conc 16	6032	3.77E+02		
		1-10 min	4th conc 19.2	5222.4	2.72E+02		
		1-10 min	5th conc 32	10176	3.18E+02		
Compound 2		1-10 min	3.2	3392	1.06E+02	9.73E+02	8.62
Xylenes	FID	1-10 min	6.4	6656	1.04E+02		
		1-10 min	16	15808	9.88E+02		
		1-10 min	19.2	17779	9.26E+02		
		1-10 min	32	27328	8.54E+02		
Compound k		1-10 min	1st conc 3.2	3360	1.05E+03	8.95E+02	18.19
O-Xylene	FID	1-10 min	2nd conc 6.4	6592	1.03E+03		
.		1-10 min	3rd conc 16	15152	9.47E+02		
.		1-10 min	4th conc 19.2	14092.8	7.34E+02		
.		1-10 min	5th conc 32	22752	7.11E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min	6.4	4791	2.99E+02	13.54	15
Compound 2 P&M Xylenes	FID	1-10 min	12.8	27888	8.72E+02	10.40	15
TPH gas	FID	1-10 min	636.8	56551	9.23E+01	12.65	15
Compound k O-Xylenes	FID	1-10 min	6.4	13879	8.67E+02	3.12	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.9	15375	7.50E+01	8.19E+01	7.39
TPH gas	FID	1-10 min	2nd conc 624.8	61680	8.60E+01		
		1-10 min	3rd conc 1562	169335	8.48E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020 (BTEX)/8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 03FEB17 (BTEX) 02FEB17 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.002	.161	.167	103	.161	.164	101	2	80-120	10
Toluene	.001	.161	.158	98	.161	.157	97	1	80-120	10
Ethyl Benzene	<.005	.161	.172	107	.161	.170	106	1	80-120	10
Methyl-t-butylether	.003	.161	.155	94	.161	.144	87	8	80-120	10
P&M Xylenes	.003	.322	.340	104	.322	.335	103	1	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	527.01	86	6	80-120	10
O-Xylenes	<.005	.161	.161	100	.161	.153	95	5	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 34FEB17/33FEB17

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.150	93	85-115
Toluene	.161	.138	86	85-115
Ethyl Benzene	.161	.153	95	85-115
Methyl-t-butylether	.161	.181	89	85-115
P&M Xylenes	.322	.303	94	85-115
TPH gas	612.8	551.52	90	85-115
O-Xylenes	.161	.150	93	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01427
Samples Received: 02/05/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/05/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	3/5/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/19/98	2/19/98	2/19/98	2/19/98	
		DATE EXTRACTED	2/19/98	2/19/98	2/19/98	2/19/98	
		LAB SAMPLE I.D.	MB	98-01427-10	98-01427-11	98-01427-TB	
		CLIENT SAMPLE I.D.		B6-FB08	B6-ER08	B6-TB07	
		EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		.5	ND	ND	ND	ND	
Toluene		.5	ND	ND	ND	ND	
Ethyl Benzene		.5	ND	ND	ND	ND	
Methyl-t-butylether		2.0	ND	ND	ND	ND	
Total Xylenes		1.0	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	98	95	89	87	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 2-18-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V4
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	3081.6	9.63E+02	1.09E+03	7.63
Benzene	FID	1-10 min	2nd conc 6.4	6720	1.05E+03		
		1-10 min	3rd conc 16	17600	1.10E+03		
		1-10 min	4th conc 19.2	22080	1.15E+03		
		1-10 min	5th conc 32	37440	1.17E+03		
Compound 2		1-10 min	3.2	3520	1.10E+03	1.26E+03	9.64
Toluene	FID	1-10 min	6.4	7424	1.16E+03		
.		1-10 min	16	21120	1.32E+03		
.		1-10 min	19.2	25920	1.35E+03		
.		1-10 min	32	43840	1.37E+03		
Compound k		1-10 min	1st conc 3.2	26400	8.25E+03	9.61E+02	10.77
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	56064	8.76E+03		
		1-10 min	3rd conc 16	16480	1.03E+03		
		1-10 min	4th conc 19.2	19584	1.02E+03		
		1-10 min	5th conc 32	33600	1.05E+03		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	18400	1.15E+03	6.32	15
Compound 2 Toluene	FID	1-10 min	16	21760	1.36E+03	8.31	15
. Ethyl Benzene	FID	1-10 min	16	16480	1.03E+03	7.39	15
. P&M Xylenes	FID	1-10 min	32	51200	1.60E+03	10.15	15
Compound k O-Xylene	FID	1-10 min	16	21760	1.36E+03	7.27	15

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V4 LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	4288	1.34E+03	1.45E+03	7.73
P&M Xylenes	FID	1-10 min	2nd conc 6.4	9024	1.41E+03		
		1-10 min	3rd conc 16	25280	1.58E+03		
		1-10 min	4th conc 19.2	29952	1.56E+03		
		1-10 min	5th conc 32	43520	1.36E+03		
Compound 2		1-10 min	3.2	3584	1.12E+03	1.26E+03	9.02
O-Xylenes	FID	1-10 min	6.4	7424	1.16E+03		
.		1-10 min	16	21120	1.32E+03		
.		1-10 min	19.2	26112	1.36E+03		
.		1-10 min	32	43520	1.36E+03		
Compound k		1-10 min	1st conc 3.2	1033.6	3.23E+02	3.57E+02	6.98
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	2182.4	3.41E+02		
		1-10 min	3rd conc 16	5808	3.63E+02		
		1-10 min	4th conc 19.2	7411.2	3.86E+02		
		1-10 min	5th conc 32	11904	3.72E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	5600	3.50E+02	1.89	15
Compound 2 TPH gas	FID	1-10 min	636.8	222880	3.50E+02	1.76	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 2-10-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V4

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 122.56	46817.92	3.82E+02	3.56E+02	6.81
TPH gas	FID	minutes	2nd conc 612.8	204062.4	3.33E+02		
			3rd conc 1532	542328	3.54E+02		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: 1427-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 02FEB19 (BTEX) 03FEB19 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.3	16	16.97	106	16	17.37	109	2	80-120	10
Toluene	.04	16	17.45	109	16	17.07	106	2	80-120	10
Ethyl Benzene	<.3	16	17.07	107	16	16.10	101	6	80-120	10
MTBE	.42	16	19.08	117	16	19.61	120	3	80-120	10
P&M Xylene	.05	32	35.25	110	32	35.02	109	1	80-120	10
O-Xylene	<.3	16	17.35	108	16	17.36	108	0	80-120	10
TPH gas	<50	636.8	624.06	98	636.8	624.06	98	0	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 26FEB18/27FEB18

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	17.12	107	85-115
Toluene	16	17.28	108	85-115
Ethyl Benzene	16	16.64	104	85-115
MTBE	16	18.08	113	85-115
P&M Xylenes	32	35.52	111	85-115
O-Xylene	16	17.44	109	85-115
TPH gas	636.8	547.65	86	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01463
Samples Received: 02/05/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/05/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/18/98	2/17/98	2/18/98	2/18/98	2/17/98
	DATE EXTRACTED	2/18/98	2/17/98	2/18/98	2/18/98	2/17/98
	LAB SAMPLE I.D.	98-01463-6	98-01463-8	98-01463-18	98-01463-23	MB
	CLIENT SAMPLE I.D.	MW3-25.0	MW3-30.25	MW3-59.75	MW3-79.5	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.002	ND	ND	0.0025	ND	ND
Toluene	0.002	0.0014	ND	0.0018	ND	ND
Ethyl Benzene	0.002	ND	ND	0.0014	ND	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	0.0028	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	96	128	76	107	91

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
ompound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.53 min.	16	2656	1.66E+02	0.94	15
Compound 2 Toluene	FID	2.77 min	16	2448	1.53E+02	0.92	15
. Ethyl Benzene	FID	4.87 min	16	1984	1.24E+02	3.74	15
. P&M Xylenes	FID	5.04 min	32	6016	1.88E+02	9.48	15
Compound k O-Xylene	FID	5.40 min	16	2560	1.60E+02	5.85	15

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98 ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2 LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.72 min.	16	851	5.32E+01	3.60	15
Compound 2 TPH gas	FID	1-10 min	612.8	17465	2.85E+01	5.90	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1367-11 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 13FEB17 (BTEX) 02FEB17 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.143	.141	98	.143	.137	95	3	80-120	10
Toluene	<0.002	.143	.147	103	.143	.136	95	8	80-120	10
Ethyl Benzene	<0.002	.143	.143	100	.143	.138	96	4	80-120	10
P&M Xylene	<0.005	.287	.303	106	.287	.291	102	4	80-120	10
O-Xylene	<0.002	.143	.144	101	.143	.146	102	1	80-120	10
MTBE	<0.005	.143	.138	96	.143	.137	96	0	80-120	10
TPH gas	<50	612.8	649.6	106	612.8	649.6	96	0	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	16.98	106	85-115
Toluene	16	16.63	104	85-115
Ethyl Benzene	16	17.33	108	85-115
P&M Xylenes	32	36.65	115	85-115
O-Xylene	16	17.70	111	85-115
MTBE	16	15.22	95	85-115
TPH gas	612.8	653.8	107	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/17/98	2/17/98	2/17/98	2/18/98	2/17/98
	DATE EXTRACTED	2/17/98	2/17/98	2/17/98	2/18/98	2/17/98
	LAB SAMPLE I.D.	98-01463-1	98-01463-2	98-01463-3	98-01463-5	MB
	CLIENT SAMPLE I.D.	MW3-4.75	MW3-9.5	MW3-15.0	MW3-20.0	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.002	ND	0.0012	0.0015	ND	ND
Toluene	0.002	ND	ND	ND	ND	ND
Ethyl Benzene	0.002	ND	ND	ND	ND	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	113	104	110	106	91

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
ompound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.53 min.	16	2656	1.66E+02	0.94	15
Compound 2 Toluene	FID	2.77 min	16	2448	1.53E+02	0.92	15
. Ethyl Benzene	FID	4.87 min	16	1984	1.24E+02	3.74	15
. P&M Xylenes	FID	5.04 min	32	6016	1.88E+02	9.48	15
Compound k O-Xylene	FID	5.40 min	16	2560	1.60E+02	5.85	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.72 min.	16	851	5.32E+01	3.60	15
Compound 2 TPH gas	FID	1-10 min	612.8	17465	2.85E+01	5.90	15
.							
.							
Compound k							

Project No.: Site I #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

1. Calibration Standard

(A). Initial Calibration

DATE PERFORMED:	1-5-98	ANALYTICAL METHOD:	8015m
STANDARD SUPPLY SOURCE:	Texaco	DATE OF SOURCE:	3-6-97
INSTRUMENT I.D.:	GC-V2	LOT NUMBER:	VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-17-98

ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1367-11 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 13FEB17 (BTEX) 02FEB17 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.143	.141	98	.143	.137	95	3	80-120	10
Toluene	<0.002	.143	.147	103	.143	.136	95	8	80-120	10
Ethyl Benzene	<0.002	.143	.143	100	.143	.138	96	4	80-120	10
P&M Xylene	<0.005	.287	.303	106	.287	.291	102	4	80-120	10
O-Xylene	<0.002	.143	.144	101	.143	.146	102	1	80-120	10
MTBE	<0.005	.143	.138	96	.143	.137	96	0	80-120	10
TPH gas	<50	612.8	649.6	106	612.8	649.6	96	0	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-18-98

ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco

LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	16.98	106	85-115
Toluene	16	16.63	104	85-115
Ethyl Benzene	16	17.33	108	85-115
P&M Xylenes	32	36.65	115	85-115
O-Xylene	16	17.70	111	85-115
MTBE	16	15.22	95	85-115
TPH gas	612.8	653.8	107	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/18/98	2/18/98	2/18/98	2/19/98	2/18/98
		DATE EXTRACTED	2/18/98	2/18/98	2/18/98	2/19/98	2/18/98
		LAB SAMPLE I.D.	98-01463-17	98-01463-19	98-01463-20	98-01463-21	MB
		CLIENT SAMPLE I.D.	MW3-54.9	MW3-64.75	MW3-69.7	MW3-74.5	
		EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
		EXTRACTION METHOD	5030	5030	5030	5030	5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND		POL					
Benzene		0.002	ND	ND	ND	ND	ND
Toluene		0.002	0.0021	0.0023	0.0025	0.0020	ND
Ethyl Benzene		0.002	ND	0.0017	ND	ND	ND
Methyl-t-butylether		0.005	ND	ND	ND	ND	ND
Total Xylenes		0.005	ND	0.0023	ND	ND	ND
TPH gas		0.5	ND	ND	ND	ND	ND
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	122	112	102	102	110

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
Compound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2720	1.70E+02	3.41	15
Compound 2 Toluene	FID	2.80 min	16	2576	1.61E+02	6.07	15
. Ethyl Benzene	FID	4.91 min	16	2000	1.25E+02	4.62	15
. P&M Xylenes	FID	5.08 min	32	6144	1.92E+02	11.35	15
Compound k O-Xylene	FID	5.44 min	16	2736	1.71E+02	13.04	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	774	4.84E+01	5.65	15
Compound 2 TPH gas	FID	1-10 min	612.8	17281	2.82E+01	4.70	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1463-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB18 (BTEX) 18FEB18 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.162	.166	102	.162	.159	98	4	80-120	10
Toluene	<0.002	.162	.169	104	.162	.160	99	5	80-120	10
Ethyl Benzene	<0.002	.162	.171	105	.162	.165	102	3	80-120	10
P&M Xylene	<0.005	.324	.354	109	.324	.347	107	2	80-120	10
O-Xylene	<0.002	.162	.167	103	.162	.163	100	3	80-120	10
MTBE	<0.005	.162	.144	89	.162	.152	104	5	80-120	10
TPH gas	<50	612.8	655.7	107	612.8	643.4	105	2	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.51	97	85-115
Toluene	16	15.26	95	85-115
Ethyl Benzene	16	15.87	99	85-115
P&M Xylenes	32	34.23	107	85-115
O-Xylene	16	16.85	105	85-115
MTBE	16	15.47	97	85-115
TPH gas	612.8	640.14	104	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	DATE EXTRACTED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	LAB SAMPLE I.D.	98-01463-31	98-01463-32	98-01463-33	98-01463-34	MB
	CLIENT SAMPLE I.D.	MW3-124.4	MW3-129.5	MW3-135.0	MW3-140.0	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.0024	ND	0.0021	0.0022	ND
Ethyl Benzene	0.002	ND	ND	0.0010	ND	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	0.0031	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	110	123	90	99	110

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
Compound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2720	1.70E+02	3.41	15
Compound 2 Toluene	FID	2.80 min	16	2576	1.61E+02	6.07	15
. Ethyl Benzene	FID	4.91 min	16	2000	1.25E+02	4.62	15
. P&M Xylenes	FID	5.08 min	32	6144	1.92E+02	11.35	15
Compound k O-Xylene	FID	5.44 min	16	2736	1.71E+02	13.04	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V2
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	774	4.84E+01	5.65	15
Compound 2 TPH gas	FID	1-10 min	612.8	17281	2.82E+01	4.70	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

1. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1463-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB18 (BTEX) 18FEB18 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.162	.166	102	.162	.159	98	4	80-120	10
Toluene	<0.002	.162	.169	104	.162	.160	99	5	80-120	10
Ethyl Benzene	<0.002	.162	.171	105	.162	.165	102	3	80-120	10
P&M Xylene	<0.005	.324	.354	109	.324	.347	107	2	80-120	10
O-Xylene	<0.002	.162	.167	103	.162	.163	100	3	80-120	10
MTBE	<0.005	.162	.144	89	.162	.152	104	5	80-120	10
TPH gas	<50	612.8	655.7	107	612.8	643.4	105	2	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.51	97	85-115
Toluene	16	15.26	95	85-115
Ethyl Benzene	16	15.87	99	85-115
P&M Xylenes	32	34.23	107	85-115
O-Xylene	16	16.85	105	85-115
MTBE	16	15.47	97	85-115
TPH gas	612.8	640.14	104	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver . 2/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	DATE EXTRACTED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	LAB SAMPLE I.D.	98-01463-27	98-01463-28	98-01463-29	98-01463-30	MB
	CLIENT SAMPLE I.D.	MW3-104.5	MW3-109.5	MW3-114.5	MW3-119.5	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.002	ND	ND	ND	ND	ND
Toluene	0.002	0.0017	0.0039	0.0015	0.0021	ND
Ethyl Benzene	0.002	ND	ND	ND	ND	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	0.0032	ND	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	120	105	98	108	110

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
ompound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2720	1.70E+02	3.41	15
Compound 2 Toluene	FID	2.80 min	16	2576	1.61E+02	6.07	15
. Ethyl Benzene	FID	4.91 min	16	2000	1.25E+02	4.62	15
. P&M Xylenes	FID	5.08 min	32	6144	1.92E+02	11.35	15
Compound k O-Xylene	FID	5.44 min	16	2736	1.71E+02	13.04	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	774	4.84E+01	5.65	15
Compound 2 TPH gas	FID	1-10 min	612.8	17281	2.82E+01	4.70	15
.							
.							
Compound k							

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED:	1-5-98	ANALYTICAL METHOD:	8015m
STANDARD SUPPLY SOURCE:	Texaco	DATE OF SOURCE:	3-6-97
INSTRUMENT I.D.:	GC-V2	LOT NUMBER:	VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1463-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB18 (BTEX) 18FEB18 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.162	.166	102	.162	.159	98	4	80-120	10
Toluene	<0.002	.162	.169	104	.162	.160	99	5	80-120	10
Ethyl Benzene	<0.002	.162	.171	105	.162	.165	102	3	80-120	10
P&M Xylene	<0.005	.324	.354	109	.324	.347	107	2	80-120	10
O-Xylene	<0.002	.162	.167	103	.162	.163	100	3	80-120	10
MTBE	<0.005	.162	.144	89	.162	.152	~~104~~ 94	5	80-120	10
TPH gas	<50	612.8	655.7	107	612.8	643.4	105	2	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.51	97	85-115
Toluene	16	15.26	95	85-115
Ethyl Benzene	16	15.87	99	85-115
P&M Xylenes	32	34.23	107	85-115
O-Xylene	16	16.85	105	85-115
MTBE	16	15.47	97	85-115
TPH gas	612.8	640.14	104	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	DATE EXTRACTED	2/19/98	2/19/98	2/19/98	2/19/98	2/18/98
	LAB SAMPLE I.D.	98-01463-22	98-01463-24	98-01463-25	98-01463-26	MB
	CLIENT SAMPLE I.D.	MW3-79.5	MW3-89.5	MW3-99.5	MW3-94.0	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	POL					
Benzene	0.002	0.0011	ND	ND	0.0022	ND
Toluene	0.002	0.0026	0.002	0.0022	0.0028	ND
Ethyl Benzene	0.002	ND	ND	0.0020	0.0017	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	0.0033	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	114	126	121	95	110

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
Compound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2720	1.70E+02	3.41	15
Compound 2 Toluene	FID	2.80 min	16	2576	1.61E+02	6.07	15
. Ethyl Benzene	FID	4.91 min	16	2000	1.25E+02	4.62	15
. P&M Xylenes	FID	5.08 min	32	6144	1.92E+02	11.35	15
Compound k O-Xylene	FID	5.44 min	16	2736	1.71E+02	13.04	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	774	4.84E+01	5.65	15
Compound 2 TPH gas	FID	1-10 min	612.8	17281	2.82E+01	4.70	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98

ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1463-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB18 (BTEX) 18FEB18 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.162	.166	102	.162	.159	98	4	80-120	10
Toluene	<0.002	.162	.169	104	.162	.160	99	5	80-120	10
Ethyl Benzene	<0.002	.162	.171	105	.162	.165	102	3	80-120	10
P&M Xylene	<0.005	.324	.354	109	.324	.347	107	2	80-120	10
O-Xylene	<0.002	.162	.167	103	.162	.163	100	3	80-120	10
MTBE	<0.005	.162	.144	89	.162	.152	104	5	80-120	10
TPH gas	<50	612.8	655.7	107	612.8	643.4	105	2	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98

ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco

LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.51	97	85-115
Toluene	16	15.26	95	85-115
Ethyl Benzene	16	15.87	99	85-115
P&M Xylenes	32	34.23	107	85-115
O-Xylene	16	16.85	105	85-115
MTBE	16	15.47	97	85-115
TPH gas	612.8	640.14	104	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

	DATE ANALYZED	2/18/98	2/18/98	2/18/98	2/18/98	2/18/98
	DATE EXTRACTED	2/18/98	2/18/98	2/18/98	2/18/98	2/18/98
	LAB SAMPLE I.D.	98-01463-10	98-01463-12	98-01463-14	98-01463-16	MB
	CLIENT SAMPLE I.D.	MW3-35.25	MW3-40.5	MW3-45.0	MW3-49.5	
	EXTRACTION SOLVENT	TEG	TEG	TEG	TEG	
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.002	ND	ND	ND	ND	ND
Toluene	0.002	ND	ND	0.0036	ND	ND
Ethyl Benzene	0.002	ND	ND	ND	ND	ND
Methyl-t-butylether	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
TPH gas	0.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	120	115	92	101	110

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
Compound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2720	1.70E+02	3.41	15
Compound 2 Toluene	FID	2.80 min	16	2576	1.61E+02	6.07	15
. Ethyl Benzene	FID	4.91 min	16	2000	1.25E+02	4.62	15
. P&M Xylenes	FID	5.08 min	32	6144	1.92E+02	11.35	15
Compound k O-Xylene	FID	5.44 min	16	2736	1.71E+02	13.04	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	774	4.84E+01	5.65	15
Compound 2 TPH gas	FID	1-10 min	612.8	17281	2.82E+01	4.70	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: 1463-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB18 (BTEX) 18FEB18 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.162	.166	102	.162	.159	98	4	80-120	10
Toluene	<0.002	.162	.169	104	.162	.160	99	5	80-120	10
Ethyl Benzene	<0.002	.162	.171	105	.162	.165	102	3	80-120	10
P&M Xylene	<0.005	.324	.354	109	.324	.347	107	2	80-120	10
O-Xylene	<0.002	.162	.167	103	.162	.163	100	3	80-120	10
MTBE	<0.005	.162	.144	89	.162	.152	104	5	80-120	10
TPH gas	<50	612.8	655.7	107	612.8	643.4	105	2	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 34FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	15.51	97	85-115
Toluene	16	15.26	95	85-115
Ethyl Benzene	16	15.87	99	85-115
P&M Xylenes	32	34.23	107	85-115
O-Xylene	16	16.85	105	85-115
MTBE	16	15.47	97	85-115
TPH gas	612.8	640.14	104	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	2	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/19/98	2/19/98	2/19/98		
		DATE EXTRACTED	2/19/98	2/19/98	2/19/98		
		LAB SAMPLE I.D.	98-01463-36	98-01463-TB	MB		
		CLIENT SAMPLE I.D.	MW3-ER07	TB			
		EXTRACTION SOLVENT					
		EXTRACTION METHOD	5030	5030	5030		
		DILUTION FACTOR	1	1	1		
COMPOUND		PQL					
Benzene		0.5	ND	ND	ND		
Toluene		0.5	0.07	ND	ND		
Ethyl Benzene		0.5	ND	ND	ND		
Methyl-t-butylether		2	ND	ND	ND		
Total Xylenes		1	ND	ND	ND		
TPH gas		50	ND	ND	ND		
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	89	85	97		

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED:	1-23-98	ANALYTICAL METHOD:	5030/8020/8015m
STANDARD SUPPLY SOURCE:	EM Science	DATE OF SOURCE:	12-15-97
INSTRUMENT I.D.:	GC-V3	LOT NUMBER:	A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.25 min	1st conc 3.2	2941	9.19E+02	8.76E+02	4.36
Benzene	FID	2.27 min	2nd conc 6.4	5798	9.06E+02		
		2.27 min	3rd conc 16	14048	8.78E+02		
		2.25 min	4th conc 19.2	16320	8.50E+02		
		2.26 min	5th conc 32	26432	8.26E+02		
Compound 2		4.37 min	3.2	2451	7.66E+02	7.81E+02	2.74
Toluene	FID	4.37 min	6.4	5101	7.97E+02		
.		4.37 min	16	12912	8.07E+02		
.		4.35 min	19.2	15034	7.83E+02		
.		4.37 min	32	24160	7.55E+02		
Compound k		6.25 min	1st conc 3.2	2362	7.38E+02	7.09E+02	10.44
Ehtyl Benzene	FID	6.25 min	2nd conc 6.4	4858	7.59E+02		
		6.25 min	3rd conc 16	11888	7.43E+02		
		6.25 min	4th conc 19.2	13978	7.28E+02		
		6.25 min	5th conc 32	18496	5.78E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.22 min.	6.4	5434	8.49E+02	3.04	15
Compound 2 Toluene	FID	4.32 min	6.4	4979	7.78E+02	0.42	15
. Ethyl Benzene	FID	6.22 min	6.4	4755	7.43E+02	4.70	15
. P&M Xylenes	FID	6.37 min	12.8	12518	9.78E+02	0.53	15
Compound k O-Xylene	FID	6.72 min	6.4	6080	9.50E+02	6.05	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-23-98

ANALYTICAL METHOD: 5030/8020/8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 12-15-98

INSTRUMENT I.D.: GC-V3

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		6.40 min	1st conc 3.2	6780	1.06E+03	9.73E+02	8.62
P&M Xylenes	FID	6.40 min	2nd conc 6.4	13261	1.04E+03		
		6.40 min	3rd conc 16	31628	9.88E+02		
		6.40 min	4th conc 19.2	35551	9.26E+02		
		6.40 min	5th conc 32	54640	8.54E+02		
Compound 2		6.75 min	3.2	3361	1.05E+03	8.95E+02	18.19
O Xylenes	FID	6.75 min	6.4	6672	1.03E+03		
.		6.75 min	16	15151	9.47E+02		
.		6.75 min	19.2	14100	7.34E+02		
.		6.75 min	32	22744	7.11E+02		
Compound k		0.72 min	1st conc 3.2	1241	3.88E+02	3.46E+01	14.41
Methyl-t-Butylether	FID	0.73 min	2nd conc 6.4	2415	3.77E+02		
		0.72 min	3rd conc 16	6028	3.77E+02		
		0.72 min	4th conc 19.2	5221	2.72E+02		
		0.72 min	5th conc 32	10168	3.18E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.72 min.	6.4	2125	3.32E+02	4.13	15
Compound 2 TPH gas	FID	1-10 min	636.8	59859	9.40E+01	14.73	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.9	9368	7.50E+01	8.19E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	53733	8.60E+01		
			3rd conc 1562	132458	8.48E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
ompound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-18-98

ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: TAP (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 08FEB18 (BTEX) 13FEB18 (TPH gas)

UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.5	16	15.86	99	16	16.12	101	2	80-120	10
Toluene	<0.5	16	16.41	103	16	16.78	105	2	80-120	10
Ethyl Benzene	<0.5	16	16.95	106	16	17.54	110	3	80-120	10
P&M Xylene	<1.0	32	32.95	103	32	33.34	104	1	80-120	10
O-Xylene	<0.5	16	17.30	108	16	17.95	112	4	80-120	10
MTBE	<2.0	16	16.16	101	16	16.22	101	0	80-120	10
TPH gas	<50	636.8	662.3	104	636.8	713.2	112	7	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-18-98

ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco

LAB LCS I.D.: 32FEB18

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97

UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	6.4	6.08	95	85-115
Toluene	6.4	6.34	99	85-115
Ethyl Benzene	6.4	6.66	104	85-115
P&M Xylenes	12.8	12.67	99	85-115
O-Xylene	6.4	6.72	105	85-115
MTBE	6.4	5.82	91	85-115
TPH gas	636.8	713.2	112	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/5/98	To	
Date(s) Received:	2/5/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	1	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/19/98	2/19/98			
		DATE EXTRACTED	2/19/98	2/19/98			
		LAB SAMPLE I.D.	98-01463-35	MB			
		CLIENT SAMPLE I.D.	MW3-144.75				
		EXTRACTION SOLVENT	TEG				
		EXTRACTION METHOD	5030	5030			
		DILUTION FACTOR	1	1			
COMPOUND		PQL					
Benzene		0.002	ND	ND			
Toluene		0.002	ND	ND			
Ethyl Benzene		0.002	ND	ND			
Methyl-t-butylether		0.005	ND	ND			
Total Xylenes		0.005	ND	ND			
TPH gas		0.5	ND	ND			
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	89	93			

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1.53 min	1st conc 3.2	493	1.54E+02	1.64E+02	10.05
Benzene	FID	1.53 min	2nd conc 6.4	902	1.41E+02		
		1.55 min	3rd conc 16	2768	1.73E+02		
		1.55 min	4th conc 19.2	3322	1.73E+02		
		1.55 min	5th conc 32	5792	1.81E+02		
Compound 2		2.77 min	3.2	461	1.44E+02	1.52E+02	6.70
Toluene	FID	2.79 min	6.4	883	1.38E+02		
.		2.79 min	16	2496	1.56E+02		
.		2.79 min	19.2	3034	1.58E+02		
.		2.79 min	32	5216	1.63E+02		
ompound k		4.87 min	1st conc 3.2	346	1.08E+02	1.20E+02	9.70
Ehtyl Benzene	FID	4.88 min	2nd conc 6.4	678	1.06E+02		
		4.88 min	3rd conc 16	2000	1.25E+02		
		4.89 min	4th conc 19.2	2438	1.27E+02		
		4.89 min	5th conc 32	4224	1.32E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1.55 min.	16	2672	1.67E+02	1.51	15
Compound 2 Toluene	FID	2.80 min	16	2384	1.49E+02	1.80	15
. Ethyl Benzene	FID	4.91 min	16	1984	1.24E+02	3.53	15
. P&M Xylenes	FID	5.07 min	32	6048	1.89E+02	9.84	15
Compound k O-Xylene	FID	5.43 min	16	2736	1.71E+02	13.29	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 2-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V2

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		5.04 min	1st conc 3.2	470	1.47E+02	1.72E+01	11.65
P&M Xylenes	FID	5.05 min	2nd conc 6.4	986	1.54E+02		
		5.05 min	3rd conc 16	3024	1.89E+02		
		5.07 min	4th conc 19.2	3610	1.88E+02		
		5.07 min	5th conc 32	5856	1.83E+02		
Compound 2		5.40 min	3.2	429	1.34E+02	1.51E+02	10.45
O Xylenes	FID	5.41 min	6.4	858	1.34E+02		
.		5.41 min	16	2640	1.65E+02		
.		5.43 min	19.2	3130	1.63E+02		
.		5.43 min	32	5120	1.60E+02		
Compound k		0.72 min	1st conc 3.2	152	4.75E+01	5.13E+01	7.87
Methyl-t-Butylether	FID	0.72 min	2nd conc 6.4	298	4.66E+01		
		0.73 min	3rd conc 16	890	5.56E+01		
		0.73 min	4th conc 19.2	1035	5.39E+01		
		0.73 min	5th conc 32	1702	5.32E+01		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.73 min.	16	832	5.20E+01	1.29	15
Compound 2 TPH gas	FID	1-10 min	612.8	16852	2.75E+01	2.29	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V2

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3644	2.92E+01	2.69E+01	7.39
TPH gas	FID	minutes	2nd conc 624.8	15889	2.54E+01		
			3rd conc 1562	40777	2.61E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
mpound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 8015m

BATCH #: 1463-35 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 10FEB19 (BTEX) 18FEB19 (TPH gas) UNIT: (Circle one) mg/kg (BTEX)/ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.002	.155	.151	97	.155	.146	94	3	80-120	10
Toluene	<0.002	.155	.150	97	.155	.144	92	4	80-120	10
Ethyl Benzene	<0.002	.155	.154	99	.155	.151	97	2	80-120	10
P&M Xylene	<0.005	.311	.327	105	.311	.320	103	2	80-120	10
O-Xylene	<0.002	.155	.160	103	.155	.157	101	2	80-120	10
MTBE	<0.005	.155	.141	90	.155	.146	94	4	80-120	10
TPH gas	<50	612.8	625.1	102	612.8	625.1	102	0	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-20-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 33FEB19

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	14.8	93	85-115
Toluene	16	14.8	93	85-115
Ethyl Benzene	16	15.5	97	85-115
P&M Xylenes	32	32.7	102	85-115
O-Xylene	16	16.5	103	85-115
MTBE	16	13.9	87	85-115
TPH gas	612.8	594.6	97	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01544
Samples Received: 02/09/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/09/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco #4357

Date(s) Sampled:	2/9/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/28/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

	DATE ANALYZED	2/21/98	2/21/98	2/21/98	2/21/98	2/21/98
	DATE EXTRACTED	2/21/98	2/21/98	2/21/98	2/21/98	2/21/98
	LAB SAMPLE I.D.	98-01544-5	98-01544-6	98-01544-8	98-01544-TB	MB
	CLIENT SAMPLE I.D.	BSFB11	HB7ER12	B5ER11	B5TB11	
	EXTRACTION SOLVENT					
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	PQL					
Benzene	0.5	ND	ND	ND	ND	ND
Toluene	0.5	0.12	0.06	0.14	ND	ND
Ethyl Benzene	0.5	ND	ND	ND	ND	ND
Methyl-t-butylether	2	ND	ND	ND	ND	ND
Total Xylenes	1	ND	ND	ND	ND	ND
TPH gas	50	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	101	92	79	70	97

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-22-98 ANALYTICAL METHOD: 5030/8020/8015m

STANDARD SUPPLY SOURCE: EM Science DATE OF SOURCE: 12-15-97

INSTRUMENT I.D.: GC-V6 LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min.	1st conc 3.2	1209.6	3.78E+02	3.77E+02	1.82
P&M Xylenes	FID		2nd conc 6.4	2470.4	3.86E+02		
			3rd conc 16	5968	3.73E+02		
			4th conc 19.2	7276.8	3.79E+02		
			5th conc 32	11776	3.68E+02		
Compound 2		1-10 min.	3.2	1171.2	3.66E+02	3.61E+02	1.69
O Xylenes	FID		6.4	2310.4	3.61E+02		
.			16	5728	3.58E+02		
.			19.2	7027.2	3.66E+02		
.			32	11264	3.52E+02		
Compound k		1-10 min.	1st conc 3.2	467.2	1.46E+02	1.44E+02	3.86
Methyl-t-Butylether	FID		2nd conc 6.4	934.4	1.46E+02		
			3rd conc 16	2160	1.35E+02		
			4th conc 19.2	2764.8	1.44E+02		
			5th conc 32	4800	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	5376	3.36E+02	6.93	15
Compound 2 TPH gas	FID	1-10 min	638	13589	2.13E+01	6.69	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m
*Revision

REPORTING UNIT:ug/L

	DATE ANALYZED	2/21/98	2/21/98	2/21/98	2/21/98	2/21/98
	DATE EXTRACTED	2/21/98	2/21/98	2/21/98	2/21/98	2/21/98
	LAB SAMPLE I.D.	98-01544-5	98-01544-6	98-01544-8	98-01544-TB	MB
	CLIENT SAMPLE I.D.	B5FB11	HB7ER12	B5ER11	B5TB11	
	EXTRACTION SOLVENT					
	EXTRACTION METHOD	5030	5030	5030	5030	5030
	DILUTION FACTOR	1	1	1	1	1
COMPOUND	POL					
Benzene	0.5	ND	ND	ND	ND	ND
Toluene	0.5	0.12	0.06	0.14	ND	ND
Ethyl Benzene	0.5	ND	ND	ND	ND	ND
Methyl-t-butylether	2	ND	ND	ND	ND	ND
Total Xylenes	1	ND	ND	ND	ND	ND
TPH gas	50	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	101	92	79	70	97

Project No.: Site #4357 (RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-22-98
ANALYTICAL METHOD: 5030/8020/8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V6
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min.	1st conc 3.2	1209.6	3.78E+02	3.77E+02	1.82
P&M Xylenes	FID		2nd conc 6.4	2470.4	3.86E+02		
			3rd conc 16	5968	3.73E+02		
			4th conc 19.2	7276.8	3.79E+02		
			5th conc 32	11776	3.68E+02		
Compound 2		1-10 min.	3.2	1171.2	3.66E+02	3.61E+02	1.69
O Xylenes	FID		6.4	2310.4	3.61E+02		
.			16	5728	3.58E+02		
.			19.2	7027.2	3.66E+02		
.			32	11264	3.52E+02		
Compound k		1-10 min.	1st conc 3.2	467.2	1.46E+02	1.44E+02	3.86
Methyl-t-Butylether	FID		2nd conc 6.4	934.4	1.46E+02		
			3rd conc 16	2160	1.35E+02		
			4th conc 19.2	2764.8	1.44E+02		
			5th conc 32	4800	1.50E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	5376	3.36E+02	6.93	15
Compound 2 TPH gas	FID	1-10 min	638	13589	2.13E+01	6.69	15
.							
.							
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-6-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V6
LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 127.3	2465	1.94E+01	2.00E+01	5.40
TPH gas	FID	minutes	2nd conc 636.8	12344	1.94E+01		
			3rd conc 1592	33810	2.12E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-20-98 ANALYTICAL METHOD: 5030/8020/8015m

BATCH #: TAP (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 13FEB20 (BTEX) 12FEB20 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.5	16	15.81	99	16	15.17	95	4	80-120	10
Toluene	<0.5	16	15.86	99	16	15.07	94	5	80-120	10
Ethyl Benzene	<0.5	16	15.66	98	16	15.18	95	3	80-120	10
P&M Xylene	<1.0	32	32.94	103	32	30.38	95	8	80-120	10
O-Xylene	<0.5	16	15.71	98	16	14.88	93	5	80-120	10
MTBE	<2.0	16	14.79	92	16	14.58	91	1	80-120	10
TPH gas	<50	638	612.5	96	638	631.6	99	3	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-20-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 38FEB20

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	14.66	92	85-115
Toluene	16	14.82	93	85-115
Ethyl Benzene	16	14.58	91	85-115
P&M Xylenes	32	30.34	95	85-115
O-Xylene	16	14.90	93	85-115
MTBE	16	14.19	89	85-115
TPH gas	638	680.8	107	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. ng the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health rtment Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01545
Samples Received: 02/09/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/09/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	2/9/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD:8015m/8020

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/20/98	2/20/98	2/20/98	2/20/98	2/20/98
		DATE EXTRACTED	2/20/98	2/20/98	2/20/98	2/20/98	2/20/98
		LAB SAMPLE I.D.	MB	98-01545-1	98-01545-6	98-01545-7	98-01545-9
		CLIENT SAMPLE I.D.		H12A-5.0	HB10-5.0	HB10-10.0	HB9-10.0
		EXTRACTION SOLVENT		TEG	TEG	TEG	TEG
		EXTRACTION METHOD	5030	5030	5030	5030	5030
		DILUTION FACTOR	1	1	1	1	1
COMPOUND		PQL					
Benzene		.002	ND	ND	ND	ND	ND
Toluene		.002	ND	.040	ND	ND	ND
Ethyl Benzene		.002	ND	.12	ND	ND	.0036
Methyl-t-butylether		.005	ND	ND	ND	ND	ND
Total Xylenes		.005	ND	.33	ND	ND	.014
TPH gas		.5	ND	NA	ND	ND	.39
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%RC
TFT	32 ug/L	70-130	91	103	87	83	86

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3893	2.43E+02	7.84	15
Compound 2 Toluene	FID	1-10 min	16	3405	2.13E+02	2.12	15
. Ethyl Benzene	FID	1-10 min	16	2762	1.73E+02	11.08	15
. MTBE	FID	1-10 min	16	12074	7.54E+01	3.89	15
Compound k P&M Xylenes	FID	1-10 min	32	7954	2.49E+02	10.21	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
MTBE	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		
Compound 2		1-10 min	3.2	659.2	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
.		1-10 min	16	2776	2.36E+02		
.		1-10 min	19.2	4492.8	2.34E+02		
.		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
		1-10 min	3rd conc 16	3600	2.25E+02		
		1-10 min	4th conc 19.2	4108.8	2.14E+02		
		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	1-10 min.	16	3744	2.34E+02	9.29	15
Compound 2 TPH gas	FID	1-10 min	612.8	16685	2.72E+01	4.32	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 624.8	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-20-98

ANALYTICAL METHOD: 8020 (BTEX) 8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 34FEB19 (BTEX) 33FEB19 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX) ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.161	.172	107	.161	.167	104	3	80-120	10
Toluene	<.005	.161	.158	98	.161	.160	100	2	80-120	10
Ethyl Benzene	<.005	.161	.176	110	.161	.172	107	2	80-120	10
MTBE	<.005	.161	.145	90	.161	.145	90	0	80-120	10
P&M Xylene	.001	.322	.349	108	.322	.340	106	2	80-120	10
O-Xylene	.002	.161	.167	103	.161	.159	98	5	80-120	10
TPH gas	<50	612.8	594.42	97	612.8	588.29	96	1	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-20-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 39FEB20/38FEB20

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) mg/kg/ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.161	100	85-115
Toluene	.161	.151	94	85-115
Ethyl Benzene	.161	.167	104	85-115
MTBE	.161	.142	88	85-115
P&M Xylenes	.322	.335	104	85-115
O-Xylene	.161	.164	102	85-115
TPH gas	612.8	551.52	90	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	2/9/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	1	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD:8020/8015m

REPORTING UNIT:mg/kg

		DATE ANALYZED	2/20/98	2/20/98			
		DATE EXTRACTED	2/20/98	2/20/98			
		LAB SAMPLE I.D.	MB	98-01545-8			
		CLIENT SAMPLE I.D.		HB9-5.0			
		EXTRACTION SOLVENT		TEG			
		EXTRACTION METHOD	5030	5030			
		DILUTION FACTOR	1	1			
COMPOUND		PQL					
Benzene		.002	ND	.0020			
Toluene		.002	ND	.024			
Ethyl Benzene		.002	ND	.11			
Methyl-t-butylether		.005	ND	ND			
Total Xylenes		.005	ND	.22			
TPH gas		.5	ND	NA			
SURROGATE	SPK CONC	ACP%	%RC	%RC			
TFT	32 ug/L	70-130	91	124			

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V1
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3893	2.43E+02	7.84	15
Compound 2 Toluene	FID	1-10 min	16	3405	2.12E+02	2.12	15
. Ethyl Benzene	FID	1-10 min	16	2762	1.73E+02	11.08	15
. MTBE	FID	1-10 min	16	12074	7.54E+01	3.89	15
Compound k P&M Xylenes	FID	1-10 min	32	7954	2.49E+02	10.21	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
MTBE	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		
Compound 2		1-10 min	3.2	659.2	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
.		1-10 min	16	3776	2.36E+02		
.		1-10 min	19.2	4492.8	2.34E+02		
.		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
		1-10 min	3rd conc 16	3600	2.25E+02		
		1-10 min	4th conc 19.2	4108.8	2.14E+02		
		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	1-10 min.	16	3744	2.34E+02	9.29	15
Compound 2 TPH gas	FID	1-10 min	612.8	16685	2.72E+01	4.32	15
.							
.							
Compound k							

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98
ANALYTICAL METHOD: 8015m
STANDARD SUPPLY SOURCE: Texaco
DATE OF SOURCE: 3-6-97
INSTRUMENT I.D.: GC-V1
LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 624.8	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-20-98

ANALYTICAL METHOD: 8020 (BTEX) 8015m (TPH gas)

BATCH #: CLNSOIL (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 34FEB19 (BTEX) 33FEB19 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX) ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.005	.161	.172	107	.161	.167	104	3	80-120	10
Toluene	<.005	.161	.158	98	.161	.160	100	2	80-120	10
Ethyl Benzene	<.005	.161	.176	110	.161	.172	107	2	80-120	10
MTBE	<.005	.161	.145	90	.161	.145	90	0	80-120	10
P&M Xylene	.001	.322	.349	108	.322	.340	106	2	80-120	10
O-Xylene	.002	.161	.167	103	.161	.159	98	5	80-120	10
TPH gas	<50	612.8	594.42	97	612.8	588.29	96	1	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-20-98

ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 39FEB20/38FEB20

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) mg/kg/ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.161	.161	100	85-115
Toluene	.161	.151	94	85-115
Ethyl Benzene	.161	.167	104	85-115
MTBE	.161	.142	88	85-115
P&M Xylenes	.322	.335	104	85-115
O-Xylene	.161	.164	102	85-115
TPH gas	612.8	551.52	90	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	2/9/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments: _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	4	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD:8020/8015m

REPORTING UNIT:mg/kg

DATE ANALYZED		2/19/98	2/19/98	2/19/98	2/20/98	2/19/98
DATE EXTRACTED		2/19/98	2/19/98	2/19/98	2/20/98	2/20/98
LAB SAMPLE I.D.		MB	98-01545-2	98-01545-3	98-01545-4	98-01545-5
CLIENT SAMPLE I.D.			HB8-5.0	HB8-10.0	HB7-10.0	HB7-10.0
EXTRACTION SOLVENT			TEG	TEG	TEG	TEG
EXTRACTION METHOD		5030	5030	5030	5030	5030
DILUTION FACTOR		1	1	1	1	1
COMPOUND	PQL					
Benzene	.002	ND	ND	ND	ND	ND
Toluene	.002	ND	ND	.0017	ND	ND
Ethyl Benzene	.002	ND	ND	ND	ND	ND
Methyl-t-butylether	.005	ND	ND	ND	ND	ND
Total Xylenes	.005	ND	ND	ND	ND	ND
TPH gas	.5	ND	ND	ND	ND	ND

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	76	99	102	87	114

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3948	2.47E+02	9.37	15
Compound 2 Toluene	FID	1-10 min	16	3540	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2769	1.73E+02	11.36	15
. MTBE	FID	1-10 min	16	1194	7.46E+02	2.77	15
Compound k P&M Xylenes	FID	1-10 min	32	7884	2.46E+02	9.24	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
MTBE	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		
Compound 2		1-10 min	3.2	659.2	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
.		1-10 min	16	2776	2.36E+02		
.		1-10 min	19.2	4492.8	2.34E+02		
.		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
		1-10 min	3rd conc 16	3600	2.25E+02		
		1-10 min	4th conc 19.2	4108.8	2.14E+02		
		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	1-10 min.	16	3600	2.25E+02	5.12	15
Compound 2 TPH gas	FID	1-10 min	612.8	16892	2.76E+02	3.13	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 624.8	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2							
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-19-98

ANALYTICAL METHOD: 8020 (BTEX) 8015m (TPH gas)

BATCH #: 1472-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 02FEB19 (BTEX) 03FEB19 (TPH gas)

UNIT: (Circle one) mg/kg (BTEX) ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.434	.158	.618	116	.158	.608	110	5	80-120	10
Toluene	.005	.158	.165	102	.158	.163	100	1	80-120	10
Ethyl Benzene	.097	.158	.285	119	.158	.285	119	0	80-120	10
MTBE	.009	.158	.163	98	.158	.166	100	2	80-120	10
P&M Xylene	.030	.316	.383	112	.316	.388	113	1	80-120	10
O-Xylene	<.005	.158	.151	96	.158	.167	106	10	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	533.14	87	4	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98

ANALYTICAL METHOD: 8015m/8020

SUPPLY SOURCE: Texaco

LAB LCS I.D.: 34FEB19/33FEB19

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97

UNIT: (Circle one) mg/kg/ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.158	.172	109	85-115
Toluene	.158	.161	102	85-115
Ethyl Benzene	.158	.175	111	85-115
MTBE	.158	.163	103	85-115
P&M Xylenes	.316	.344	109	85-115
O-Xylene	.158	.166	105	85-115
TPH gas	612.8	594.42	97	85-115

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ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Former Unocal #4357

Date(s) Sampled:	2/9/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/26/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	2	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD:8020/8015m

REPORTING UNIT:mg/kg

DATE ANALYZED		2/19/98	2/19/98	2/20/98		
DATE EXTRACTED		2/19/98	2/19/98	2/20/98		
LAB SAMPLE I.D.		MB	98-01545-1	98-01545-8		
CLIENT SAMPLE I.D.			HB12A-5.0	HB12A-5.0		
EXTRACTION SOLVENT			TEG	TEG		
EXTRACTION METHOD		5030	5030	5030		
DILUTION FACTOR		1	1	1		
COMPOUND	PQL					
Benzene	.002	ND	NA	NA		
Toluene	.002	ND	NA	NA		
Ethyl Benzene	.002	ND	NA	NA		
Methyl-t-butylether	.005	ND	NA	NA		
Total Xylenes	.005	ND	NA	NA		
TPH gas	5.0	ND	42	16		

SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	91	103	124		

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 1-31-98

ANALYTICAL METHOD: 8020

STANDARD SUPPLY SOURCE: EM Science

DATE OF SOURCE: 1-22-98

INSTRUMENT I.D.: GC-V1

LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	697.6	2.18E+02	2.26E+02	5.88
Benzene	FID	1-10 min	2nd conc 6.4	1331.2	2.08E+02		
		1-10 min	3rd conc 16	3696	2.31E+02		
		1-10 min	4th conc 19.2	4416	2.30E+02		
		1-10 min	5th conc 32	7744	2.42E+02		
Compound 2		1-10 min	3.2	732.8	2.29E+02	2.17E+02	3.75
Toluene	FID	1-10 min	6.4	1318.4	2.06E+02		
.		1-10 min	16	3520	2.20E+02		
.		1-10 min	19.2	4128	2.15E+02		
.		1-10 min	32	6976	2.18E+02		
Compound k		1-10 min	1st conc 3.2	438.4	1.37E+02	1.55E+02	8.78
Ehtyl Benzene	FID	1-10 min	2nd conc 6.4	921.6	1.44E+02		
		1-10 min	3rd conc 16	2624	1.64E+02		
		1-10 min	4th conc 19.2	3148.8	1.64E+02		
		1-10 min	5th conc 32	5344	1.67E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	3948	2.47E+02	9.37	15
Compound 2 Toluene	FID	1-10 min	16	3540	2.21E+02	1.82	15
. Ethyl Benzene	FID	1-10 min	16	2769	1.73E+02	11.36	15
. MTBE	FID	1-10 min	16	1194	7.46E+02	2.77	15
Compound k P&M Xylenes	FID	1-10 min	32	7884	2.46E+02	9.24	15

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	216.48	6.56E+01	7.26E+01	7.32
MTBE	FID	1-10 min	2nd conc 6.4	460.02	6.97E+01		
		1-10 min	3rd conc 16	1291.95	7.83E+01		
		1-10 min	4th conc 19.2	1425.6	7.20E+01		
		1-10 min	5th conc 32	2557.5	7.75E+01		
Compound 2		1-10 min	3.2	659.2	2.06E+02	2.26E+02	5.88
P&M Xylenes	FID	1-10 min	6.4	1395.2	2.18E+02		
.		1-10 min	16	2776	2.36E+02		
.		1-10 min	19.2	4492.8	2.34E+02		
.		1-10 min	32	7488	2.34E+02		
Compound k		1-10 min	1st conc 3.2	652.8	2.04E+02	2.14E+02	4.71
O-Xylene	FID	1-10 min	2nd conc 6.4	1312	2.05E+02		
		1-10 min	3rd conc 16	3600	2.25E+02		
		1-10 min	4th conc 19.2	4108.8	2.14E+02		
		1-10 min	5th conc 32	7168	2.24E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 O-Xylene	FID	1-10 min.	16	3600	2.25E+02	5.12	15
Compound 2 TPH gas	FID	1-10 min	612.8	16892	2.76E+02	3.13	15
.							
.							
Compound k							

Project No.: Site I #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 1-5-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V1

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 124.96	3623	2.90E+01	2.85E+01	3.96
TPH gas	FID	minutes	2nd conc 624.8	16971	2.72E+01		
			3rd conc 1562	45629	2.92E+01		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 8020 (BTEX) 8015m (TPH gas)

BATCH #: 1472-10 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 02FEB19 (BTEX) 03FEB19 (TPH gas) UNIT: (Circle one) mg/kg (BTEX) ug/L (TPH gas)

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	.434	.158	.618	116	.158	.608	110	5	80-120	10
Toluene	.005	.158	.165	102	.158	.163	100	1	80-120	10
Ethyl Benzene	.097	.158	.285	119	.158	.285	119	0	80-120	10
MTBE	.009	.158	.163	98	.158	.166	100	2	80-120	10
P&M Xylene	.030	.316	.383	112	.316	.388	113	1	80-120	10
O-Xylene	<.005	.158	.151	96	.158	.167	106	10	80-120	10
TPH gas	<50	612.8	557.65	91	612.8	533.14	87	4	80-120	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 8015m/8020

SUPPLY SOURCE: Texaco LAB LCS I.D.: 34FEB19/33FEB19

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) mg/kg/ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	.158	.172	109	85-115
Toluene	.158	.161	102	85-115
Ethyl Benzene	.158	.175	111	85-115
MTBE	.158	.163	103	85-115
P&M Xylenes	.316	.344	109	85-115
O-Xylene	.158	.166	105	85-115
TPH gas	612.8	594.42	97	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01546
Samples Received: 02/09/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/09/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	76 Station Tosco Site # 4357
Date(s) Sampled:	2/6/98 To
Date(s) Received:	2/9/98 To
Date(s) Reported:	2/25/98

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 5030/8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/19/98	2/20/98	2/20/98	2/19/98	
		DATE EXTRACTED	2/19/98	2/20/98	2/20/98	2/19/98	
		LAB SAMPLE I.D.	98-01546-6	98-01546-7	98-01546-TB	MB	
		CLIENT SAMPLE I.D.	B7ER09	B7FB09	B7TB09		
		EXTRACTION SOLVENT					
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		.5	ND	ND	ND	ND	
Toluene		.5	ND	ND	ND	ND	
Ethyl Benzene		.5	ND	ND	ND	ND	
Methyl-t-butylether		2.0	ND	ND	ND	ND	
Total Xylenes		1.0	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	93	90	90	89	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 5030/8020/8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V3
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		2.25 min	1st conc 3.2	2941	9.19E+02	8.76E+02	4.39
Benzene	FID	2.25 min	2nd conc 6.4	5798	9.06E+02		
.		2.25 min	3rd conc 16	14048	8.78E+02		
.		2.25 min	4th conc 19.2	16320	8.50E+02		
.		2.25 min	5th conc 32	26432	8.26E+02		
Compound 2		4.37 min	3.2	2451	7.66E+02	7.81E+02	2.74
Toluene	FID	4.37 min	6.4	5101	7.97E+02		
		4.37 min	16.0	12912	8.07E+02		
		4.35 min	19.2	15034	7.83E+02		
		4.37 min	32.0	24160	7.55E+02		
Compound k		6.25 min	1st conc 3.2	2362	7.38E+02	7.09E+02	10.44
Ethyl Benzene	FID	6.25 min	2nd conc 6.4	4858	7.59E+02		
		6.25 min	3rd conc 16	11888	7.43E+02		
		6.25 min	4th conc 19.2	13978	7.28E+02		
		6.25 min	5th conc 32	18496	5.78E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	2.20 min	6.4	12520	7.83E+02	10.66	15
Compound 2 Toluene	FID	4.30 min	6.4	11527	7.20E+02	7.80	15
Ethyl Benzene	FID	6.22 min	6.4	10976	6.86E+02	3.29	15
P&M Xylenes	FID	6.37 min	12.8	28966	9.05E+02	6.94	15
Compound k O-Xylene	FID	6.72 min	6.4	13784	8.62E+02	3.79	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-23-98
ANALYTICAL METHOD: 5030/8020/8015m
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 12-15-97
INSTRUMENT I.D.: GC-V3
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		6.40 min	1st conc 3.2	6780	1.06E+02	9.73E+02	8.62
P&M Xylenes	FID	6.40 min	2nd conc 6.4	13261	1.04E+02		
		6.40 min	3rd conc 16	31628	9.88E+02		
		6.40 min	4th conc 19.2	35551	9.26E+02		
		6.40 min	5th conc 32	54640	8.54E+02		
Compound 2		6.75 min	3.2	3361	1.05E+03	8.95E+02	18.19
O-Xylene	FID	6.75 min	6.4	6622	1.03E+03		
		6.75 min	16	15151	9.47E+02		
		6.75 min	19.2	14100	7.34E+02		
		6.75 min	32	22744	7.11E+02		
Compound k		0.72 min	1st conc 3.2	1241	3.88E+02	3.46E+02	14.41
Methyl-t-butylether	FID	0.73 min	2nd conc 6.4	2415	3.77E+02		
.		0.72 min	3rd conc 16	6028	3.77E+02		
.		0.72 min	4th conc 19.2	5221	2.72E+02		
.		0.72 min	5th conc 32	10168	3.18E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	0.72 min	6.4	5037	3.15E+02	9.10	15
Compound 2 TPH gas	FID	1-10 min	636.8	61259	9.15E+01	11.63	15
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration

DATE PERFORMED: 1-13-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V3

LOT NUMBER: VO-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 124.9	9368	7.50E+01	8.19E+01	7.39
TPH gas	FID	1-10 min	2nd conc 624.8	53733	8.60E+01		
		1-10 min	3rd conc 1562	132458	8.48E+01		
			4th conc				
			5th conc				
Compound 2							
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m)

BATCH #: 1524-3 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 14FEB19 (BTEX) 12FEB19 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<0.5	16	15.09	94	16	14.54	91	4	80-120	10
Toluene	<0.5	16	15.48	97	16	14.76	92	5	80-120	10
Ethyl Benzene	<0.5	16	16.21	101	16	15.65	98	4	80-120	10
P&M Xylenes	<1.0	32	31.07	97	32	30.17	94	3	80-120	10
O-Xylenes	<0.5	16	16.37	102	16	15.99	100	2	80-120	10
Methyl-t-butylether	<2	16	16.35	102	16	15.49	96	5	80-120	10
TPH gas	<50	636.8	732.3	115	636.8	713.2	112	3	85-115	10

III. Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-19-98 ANALYTICAL METHOD: 5030/8020/8015m

SUPPLY SOURCE: EM Science/Texaco LAB LCS I.D.: 03FEB20

LOT NUMBER: A7040314/VO-1224

DATE OF SOURCE: 1-22-98/3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	6.4	5.7	88	85-115
Toluene	6.4	5.9	92	85-115
Ethyl Benzene	6.4	6.1	96	85-115
P&M Xylenes	12.8	11.8	92	85-115
O-Xylenes	6.4	6.2	97	85-115
Methyl-t-butylether	6.4	5.8	90	85-115
TPH gas	636.8	681.9	107	85-115

ACKNOWLEDGEMENTS

The following staff of the California Regional Water Quality Control Board - Los Angeles Region involved to finalize this document: David Bacharowski, Alex Carlos, Rebecca Chou, Yue Rong, Hiam Tan. During the reporting form development and revision, representatives from many regulated laboratories, especially Association of California Testing Laboratories (ACTLabs), and California Health Department Environmental Laboratory Accreditation Program (ELAP), provided valuable comments that make the improvement of the form possible.

BC LABORATORIES, INC.

March 12, 1998

GIL FRY
ALTON GEOSCIENCE
25 A TECHNOLOGY DRIVE
IRVINE, CA 92718

Subject: Laboratory Submission No.: 98-01547
Samples Received: 02/09/98

Dear Mr. Fry:

Site 2726 samples were received by BC Laboratories, Inc. on 02/09/98. Results were previously reported under separate cover.

Enclosed please find results in RWQCB - L.A. Region format as requested. If there are questions regarding this report please contact me at (805)327-4911, ext. 250.

Sincerely,

Cheryl Ferguson
Project Manager
BC Laboratories, Inc.

4100 Atlas Ct. • Bakersfield, CA 93308 • (805) 327-4911 • FAX (805) 327-1918

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 1)

Laboratory Name:	BC LABORATORIES, INC.
Address:	4100 Atlas Court
	Bakersfield, California 93308
Telephone/FAX:	(805) 327-4911 / (805) 327-1918
ELAP Certification No.:	1186 Expiration Date: 5/31/98
Authorized Signature Name, Title (Print):	Dan Schultz, Lab Director
Signature, Date:	
Client Name:	Alton Geoscience
Project No.:	Site #4357

Date(s) Sampled:	2/7/98	To	
Date(s) Received:	2/9/98	To	
Date(s) Reported:	2/28/98		

Chain of custody received?: Yes X No____

Comments:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

Organic Analyses	# of Samples	# of Samples Subcontracted
BTEX, TPH gas, plus MTBE	3	0

Sample Condition: Good

Inorganic Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Microbiological Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Other Types of Analyses	# of Samples	# of Samples Subcontracted

Sample Condition:

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

ANALYTICAL RESULTS FOR ORGANICS

METHOD: 8020/8015m

REPORTING UNIT:ug/L

		DATE ANALYZED	2/20/98	2/20/98	2/20/98	2/20/98	
		DATE EXTRACTED	2/20/98	2/20/98	2/20/98	2/20/98	
		LAB SAMPLE I.D.	MB	98-01547-3	98-01547-4TB	98-01547-5	
		CLIENT SAMPLE I.D.		B7-FB10	B7-TB10	B7-ER10	
		EXTRACTION SOLVENT		INERT GAS	INERT GAS	INERT GAS	
		EXTRACTION METHOD	5030	5030	5030	5030	
		DILUTION FACTOR	1	1	1	1	
COMPOUND		PQL					
Benzene		.5	ND	ND	ND	ND	
Toluene		.5	ND	ND	ND	.07	
Ethyl Benzene		.5	ND	ND	ND	ND	
Methyl-t-butylether		2.0	ND	ND	ND	ND	
Total Xylenes		1.0	ND	ND	ND	ND	
TPH gas		50	ND	ND	ND	ND	
SURROGATE	SPK CONC	ACP%	%RC	%RC	%RC	%RC	%/RC
TFT	32 ug/L	70-130	93	98	103	97	

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 2-18-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V4
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	3081.6	9.63E+02	1.09E+03	7.63
Benzene	FID	1-10 min	2nd conc 6.4	6720	1.05E+03		
		1-10 min	3rd conc 16	17600	1.10E+03		
		1-10 min	4th conc 19.2	22080	1.15E+03		
		1-10 min	5th conc 32	37440	1.17E+03		
Compound 2		1-10 min	3.2	3520	1.10E+03	1.26E+03	9.64
Toluene	FID	1-10 min	6.4	7424	1.16E+03		
.		1-10 min	16	21120	1.32E+03		
.		1-10 min	19.2	25920	1.35E+03		
.		1-10 min	32	43840	1.37E+03		
Compound k		1-10 min	1st conc 3.2	26400	8.25E+02	9.61E+02	10.77
Ethyl Benzene	FID	1-10 min	2nd conc 6.4	56064	8.76E+02		
		1-10 min	3rd conc 16	16480	1.03E+03		
		1-10 min	4th conc 19.2	19584	1.02E+03		
		1-10 min	5th conc 32	33600	1.05E+03		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 Benzene	FID	1-10 min.	16	18400	1.16E+03	6.78	15
Compound 2 Toluene	FID	1-10 min	16	21760	1.39E+03	10.17	15
. Ethyl Benzene	FID	1-10 min	16	16480	1.08E+03	12.16	15
. P&M Xylenes	FID	1-10 min	32	51200	1.62E+03	11.59	15
Compound k O-Xylene	FID	1-10 min	16	21760	1.38E+03	8.76	15

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration BTEX

DATE PERFORMED: 2-18-98
ANALYTICAL METHOD: 8020
STANDARD SUPPLY SOURCE: EM Science
DATE OF SOURCE: 1-22-98
INSTRUMENT I.D.: GC-V4
LOT NUMBER: A7040314

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1-10 min	1st conc 3.2	4288	1.34E+03	1.45E+03	7.73
P&M Xylenes	FID	1-10 min	2nd conc 6.4	9024	1.41E+03		
		1-10 min	3rd conc 16	25280	1.58E+03		
		1-10 min	4th conc 19.2	29952	1.56E+03		
		1-10 min	5th conc 32	43520	1.36E+03		
Compound 2		1-10 min	3.2	3584	1.12E+03	1.26E+03	9.02
O-Xylenes	FID	1-10 min	6.4	7424	1.16E+03		
.		1-10 min	16	21120	1.32E+03		
.		1-10 min	19.2	26112	1.36E+03		
.		1-10 min	32	43520	1.36E+03		
Compound k		1-10 min	1st conc 3.2	1033.6	3.23E+02	3.57E+02	6.98
Methyl-t-Butylether	FID	1-10 min	2nd conc 6.4	2182.4	3.41E+02		
		1-10 min	3rd conc 16	5808	3.63E+02		
		1-10 min	4th conc 19.2	7411.2	3.86E+02		
		1-10 min	5th conc 32	11904	3.72E+02		

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1 MTBE	FID	1-10 min.	16	5600	3.87E+02	8.41	15
Compound 2 TPH gas	FID	1-10 min	636.8	222880	3.56E+02	0.23	15
.							
.							
Compound k							

Project No.: Site #4357

(RWQCB LabForm10A;Ver12/94)

QA/QC REPORT

I. Calibration Standard

(A). Initial Calibration TPH gas

DATE PERFORMED: 2-10-98

ANALYTICAL METHOD: 8015m

STANDARD SUPPLY SOURCE: Texaco

DATE OF SOURCE: 3-6-97

INSTRUMENT I.D.: GC-V4

LOT NUMBER: VO-4-1224

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	RF_{AVE}	%RSD
Compound 1		1 to 10	1st conc 122.56	46817.92	3.82E+02	3.56E+02	6.81
TPH gas	FID	minutes	2nd conc 612.8	204062.4	3.33E+02		
			3rd conc 1532	542328	3.54E+02		
			4th conc				
			5th conc				
Compound 2			.				
.			.				
.			.				
.			.				
.			.				
Compound k			1st conc				
			2nd conc				
			3rd conc				
			4th conc				
			5th conc				

(B). Continuing Calibration (Mid-Point)

COMPOUND	DETECTOR	RT	MASS/CONC UNIT: ug/L	AREA	RF	%DIFF	ACP RGE %DIFF
Compound 1							
Compound 2							
.							
.							
Compound k							

QA/QC REPORT (Continued)

II. Matrix Spike (MS/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 2-20-98 ANALYTICAL METHOD: 8020/8015m

BATCH #: 1547-3 (BTEX) OFW (TPH gas)

LAB SAMPLE I.D.: 15FEB20 (BTEX) 16FEB20 (TPH gas) UNIT: (Circle one) ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
Benzene	<.3	16	17.06	106	16	16.27	102	4	80-120	10
Toluene	.05	16	16.80	105	16	16.08	100	4	80-120	10
Ethyl Benzene	.04	16	16.06	100	16	15.74	98	2	80-120	10
MTBE	.25	16	19.23	119	16	18.31	113	5	80-120	10
P&M Xylene	.01	32	35.11	110	32	32.54	102	8	80-120	10
O-Xylene	.01	16	17.06	106	16	16.24	101	5	80-120	10
TPH gas	<50	636.8	624.06	98	636.8	636.8	100	2	80-120	10

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 2-20-98 ANALYTICAL METHOD: 8020/8015m

SUPPLY SOURCE: Texaco LAB LCS I.D.: 35FEB20/34FEB20

LOT NUMBER: VO-4-1224

DATE OF SOURCE: 3-6-97 UNIT: (Circle one) ug/L

ANALYTE	SPIKE CONC	RESULT	%RECOVERY	ACP %REC LIMIT
Benzene	16	17.12	107	85-115
Toluene	16	17.60	110	85-115
Ethyl Benzene	16	17.92	112	85-115
MTBE	16	17.28	108	85-115
P&M Xylenes	32	35.84	112	85-115
O-Xylene	16	17.44	109	85-115
TPH gas	636.8	554.02	87	85-115

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