SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RECEIVED

JUL 22 1992

RESNA
SAN JOSE

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Project: ARCO 276, Oakland

Enclosed are the results from 2 soil samples received at Sequoia Analytical on July 17,1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2072596	Soil, S-0717-SP1 A-D Comp.	7/17/92	EPA 5030/8015/8020
2072597	Soil, S-0717-SP2 A-D Comp.	7/17/92	EPA 5030/8015/8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 276, Oakland	Sampled:	Jul 17, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	Soil, Composite	Received:	Jul 17, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8015/8020	Reported:	Jul 21, 1992
Attention: Joel Coffman	First Sample #:	207-2596		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 207-2596 S-0717-SP1 A-D	Sample I.D. 207-2597 S-0717-SP2 A-D
Purgeable Hydrocarbons	1.0	N.D.	N.D.
Benzene	0.0050	N.D.	0.0080
Toluene	0.0050	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	0.010
Total Xylenes	0.0050	N.D.	0.052
Chromatogram Pattern:		--	Gas

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	7/20/92	7/20/92
Instrument Identification:	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	85	96

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Joel Coffman

Client Project ID: ARCO 276, Oakland

QC Sample Group: 2072596-7

Reported: Jul 21, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Maralit	A. Maralit	A. Maralit	A. Maralit
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jul 20, 1992	Jul 20, 1992	Jul 20, 1992	Jul 20, 1992
QC Sample #:	GBLK072092	GBLK072092	GBLK072092	GBLK072092
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.19	0.19	0.19	0.57
Matrix Spike % Recovery:	95	95	95	95
Conc. Matrix Spike Dup.:	0.20	0.20	0.20	0.61
Matrix Spike Duplicate % Recovery:	100	100	100	102
Relative % Difference:	5.1	5.1	5.1	6.8

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Valli Voruganti

Project: ARCO 276, Oakland

Enclosed are the results from 1 soil sample received at Sequoia Analytical on July 22, 1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2073185	Soil, S-0722 A-D Comp.	7/22/92	EPA 5030/8020 by TCLP Extraction EPA 5030/8015 Corrosivity, Ignitability, and Reactivity STLC/Lead

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 276, Oakland	Sampled:	Jul 22, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix:	TCLP Extraction of Soil Comp.	Received:	Jul 22, 1992
San Jose, CA 95118	Analysis Method:	EPA 5030/8020	Reported:	Jul 28, 1992
Attention: Valli Voruganti	First Sample #:	207-3185		

BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 207-3185 S-0722 A-B Comp.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Total Xylenes	0.50	N.D.

Quality Control Data

Report Limit Multiplication Factor:	20
Date Analyzed:	7/23/92
Instrument Identification:	GHCP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	103

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Valli Voruganti

Client Project ID: ARCO 276, Oakland

QC Sample Group: 207-3185

Reported: Jul 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Jul 23, 1992	Jul 23, 1992	Jul 23, 1992	Jul 23, 1992
QC Sample #:	GBLK072392	GBLK072392	GBLK072392	GBLK072392
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	11	11	10	32
Matrix Spike % Recovery:	110	110	100	107
Conc. Matrix Spike Dup.:	11	11	11	33
Matrix Spike Duplicate % Recovery:	110	110	110	110
Relative % Difference:	0.0	0.0	9.5	3.1

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

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RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Valli Voruganti

Client Project ID: ARCO 276, Oakland

QC Sample Group: 207-3185

Reported: Jul 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jul 23, 1992	Jul 23, 1992	Jul 23, 1992	Jul 23, 1992
QC Sample #:	GBLK072392	GBLK072392	GBLK072392	GBLK072392
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.19	0.19	0.19	0.56
Matrix Spike % Recovery:	95	95	95	93
Conc. Matrix Spike Dup.:	0.18	0.19	0.18	0.53
Matrix Spike Duplicate % Recovery:	90	95	90	88
Relative % Difference:	5.4	0.0	5.4	5.5

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95118
Attention: Valli Voruganti

Client Project ID: ARCO 276, Oakland

QC Sample Group: 207-3185

Reported: Jul 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Flashpoint	Sulfide	pH	Cyanide	Lead
Method:	EPA 1010	EPA 9030	EPA 9045	EPA 9010	EPA 200.7
Analyst:	K. Follett	K. Follett	Y. Arteaga	A. Savva	M. Mistry
Reporting Units:	°C	mg/kg	N.A.	mg/kg	mg/L
Date Analyzed:	Jul 23, 1992	Jul 27, 1992	Jul 22, 1992	Jul 27, 1992	Jul 27, 1992
QC Sample #:	207-3185	207-3320	207-2986	207-2882	207-0172
Sample Conc.:	>100	N.D.	3.9	N.D.	0.69
Spike Conc. Added:	N.A.	1300	N.A.	8.0	10
Conc. Matrix Spike:	N.A.	1400	N.A.	7.3	9.6
Matrix Spike % Recovery:	N.A.	108	N.A.	91	89
Conc. Matrix Spike Dup.:	>100	1400	3.9	7.2	9.5
Matrix Spike Duplicate % Recovery:	N.A.	108	N.A.	90	88
Relative % Difference:	0.0	0.0	0.0	1.4	1.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

APPENDIX F

WASTE MANIFEST FORMS

Dillard Trucking, Inc.

ENVIRONMENTAL SERVICES
P.O. BOX 218 BYRON, CALIFORNIA 94514
(510) 634-6850 FAX (510) 634-0569

October 12, 1992

RESNA
3315 Almaden Expressway #34
San Jose, CA 94118

Attn: **Mr. Robert Campbell**

Re: **Arco Station #276 - 10600 MacArthur, Oakland**

Dear Robert:

Enclosed herewith please find copies of the BFI Non Hazardous Special Waste Manifests from the above mentioned site. These are dated June 26, 1992, July 23, 1992 and July 30, 1992.

I trust that you will find everything in order. If you have any questions, please do not hesitate to call me.

Respectfully yours,

DILLARD TRUCKING, INC.

Donna L. Pedersen
Estimator

DLP/st

cc:file

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 816943

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo, Ca. 94402
Phone No.: 415-573-1243

Generating Location: ARCO Station #275
Address: 10600 Macarthur Blvd.
Oakland, CA
Phone No.:

BFI Waste Code: CA 405 062492 38850

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00003	Y	02	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Matthew Dutra for Arco — Generator Authorized Agent Name
Matthew Dutra — Signature
062692 — Shipment Date

TRANSPORTER

Truck No.: 78 78A
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking, Inc. 1001/39
Driver Name (Print): Bud Lawrence
Address: P. O. Box 218
Byron, California 94544
Vehicle License No./State: 3V19627 JUH952
Vehicle Certification: 300834 300835

I hereby certify that the above named material was picked up at the generator site listed above.
Bud Lawrence — Driver Signature
062692 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.
Bud Lawrence — Driver Signature
062692 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491
Address: 4001 North Vasco Rd., Livermore, Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
062692 — Receipt Date

PASS CODE

10/86

BFI260-

TRANSPORTER RETAIN

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 854420

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo. Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #276
Address: 10600 MacArthur Blvd.
Oakland. CA
Phone No.:

BFI Waste Code: CA 405 072192 40844

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00010	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: PATRICK LAND
Signature:
Shipment Date: 07 23 92

TRANSPORTER

Truck No.: 185
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking. Inc. 1002/32
Driver Name (Print): STEVE COSSITT
Address: P. O. Box 218
Byron. California 94544
Vehicle License No./State: 4A79253
Vehicle Certification: 300816/309572

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature:
Shipment Date: 07 23 92

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature:
Delivery Date: 07 23 92

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447-0491
Address: 4001 North Vasco Rd.. Livermore. Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent:
Signature:
Receipt Date: 7 23 92

PASS CODE:

10/86

BFI260-720

TRANSPORTER RETAIN

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 854198

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo. Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #276
Address: 10600 MacArthur Blvd.
Oakland. CA
Phone No.:

BFI Waste Code: CA 405 0729924089 2

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
0018	Y	02	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

ARCO — Generator Authorized Agent Name
Randy Hyland FOR ARCO — Signature
07 29 92 — Shipment Date

TRANSPORTER

Truck No.: 185
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking. Inc. 1002/32
Driver Name (Print): Sam Rodrigs
Address: P. O. Box 218
Byron. California 94544
Vehicle License No./State: 4A79253 - IUR803
Vehicle Certification: 301547 - 309575

I hereby certify that the above named material was picked up at the generator site listed above.
Driver Signature
07 29 92 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.
Driver Signature
07 30 9[illegible] — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447049[illegible]
Address: 4001 North Vasco Rd., Livermore. Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
Receipt Date

PASS CODE

10/86

BFI260-7[illegible]

TRANSPORTER RETAIN

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 854196

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo. Ca. 94402
Phone No.: 415-571-2434

Generating Location: ARCO Station #276
Address: 10600 MacArthur Blvd.
Oakland. CA
Phone No.:

BFI Waste Code: CA 405 072992 40892

Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00009	Y	01	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

ARCO — Generator Authorized Agent Name
Randy Shyklad For ARCO — Signature
072292 — Shipment Date

TRANSPORTER

Truck No.: 185
Phone No.: 510-634-6850
Transporter Name: Dillard Trucking, Inc. 1002/32
Driver Name (Print): SAM RODRIGUEZ
Address: P. O. Box 218
Byron, California 94544
Vehicle License No./State: 4A79253
Vehicle Certification: 300814

I hereby certify that the above named material was picked up at the generator site listed above.

Randy Shyklad — Driver Signature
072292 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sam Rodriguez — Driver Signature
073092 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Phone No.: 510-447049
Address: 4001 North Vasco Rd.. Livermore. Ca. 94550

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
Receipt Date

PASS CODE

10/86

BFI260-720

TRANSPORTER RETAIN

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 854199

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: ARCO Products
Address: P. O. Box 5811
San Mateo. Ca. 94402
Phone No.: 415-5712434

Generating Location: ARCO Station #276
Address: 10600 MacArthur Blvd.
Oakland. CA
Phone No.:

BFI Waste Code: CA 405
Description of Waste: NON HAZARDOUS SOIL

Quantity	Units	Containers No.	Containers Type
00018	Y	02	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

07292 40892

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

ARCo — Generator Authorized Agent Name
For ARCO — Signature
072292 — Shipment Date

TRANSPORTER

Truck No.: 185 - 185 A
Transporter Name: Dillard Trucking, Inc. 1002/32
Address: P. O. Box 218
Byron, California 94544
Phone No.: 510-634-6850
Driver Name (Print): SAM RODRIGUEZ
Vehicle License No./State: 4A79253 - TRUCK / 1UR8023 C - TRAILER
Vehicle Certification: 301549 - 309727

I hereby certify that the above named material was picked up at the generator site listed above.

AL FRANK — Driver Signature
072292 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sam Rodriguez — Driver Signature
073092 — Delivery Date

DESTINATION

Site Name: B.F.I. Vasco Road Landfill
Address: 4001 North Vasco Rd.. Livermore. Ca. 94550
Phone No.: 510-447-0491

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
073092 — Receipt Date

PASS CODE

10/86

BFI260-72(

TRANSPORTER RETAIN

APPENDIX G

LABORATORY ANALYSEIS REPORTS AND CHAIN OF CUSTODY RECORDS-AIR

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-629

September 2, 1992

Valli Voruganti
RESNA Industries
3315 Almaden Expressway, #34
San Jose, CA 95118

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 08/25/92 under task order number 276-92-2.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen

Eileen F. Bullen
Laboratory Director

Table 1

ANALYTICAL RESULTS

Volatile Organics in Air

EPA Method 8240[a]

GTEL Sample Number		01	02		
Client Identification		AS COMB-30	METHOD BLANK		
Date Sampled		08/24/92	08/24/92		
Date Analyzed		08/26/92	08/26/92		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	10	<10	<10		
Bromomethane	10	<10	<10		
Vinyl chloride	10	<10	<10		
Chloroethane	10	<10	<10		
Methylene chloride	5	<5	<5		
Acetone	100	<100	<100		
Carbon disulfide	5	<5	<5		
1,1-Dichloroethene	5	<5	<5		
1,1-Dichloroethane	5	<5	<5		
1,2-Dichloroethene. total	5	<5	<5		
Chloroform	5	<5	<5		
1,2-Dichloroethane	5	<5	<5		
2-Butanone	100	<100	<100		
1,1,1-Trichloroethane	5	<5	<5		
Carbon tetrachloride	5	<5	<5		
Vinyl acetate	50	<50	<50		
Bromodichloromethane	5	<5	<5		
1,2-Dichloropropane	5	<5	<5		
cis-1,3-Dichloropropene	5	<5	<5		
Trichloroethene	5	<5	<5		

a. Test Methods for Evaluating Solid Waste, SW-846. Third Edition, Revision 0. US EPA November 1986 (method modified for additional compounds). Sample introduction by EPA Method 5030.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Air

EPA Method 8240[a]

GTEL Sample Number		01	02		
Client Identification		AS COMB-30	METHOD BLANK		
Date Sampled		08/24/92	08/24/92		
Date Analyzed		08/26/92	08/26/92		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Dibromochloromethane	5	<5	<5		
1,1,2-Trichloroethane	5	<5	<5		
Benzene	5	160	<5		
trans-1,3-Dichloropropene	5	<5	<5		
2-Chloroethylvinyl ether	10	<10	<10		
Bromoform	5	<5	<5		
4-Methyl-2-pentanone	50	<50	<50		
2-Hexanone	50	<50	<50		
Tetrachloroethene	5	<5	<5		
1,1,2,2-Tetrachloroethane	5	<5	<5		
Toluene	5	130	<5		
Chlorobenzene	5	<5	<5		
Ethylbenzene	5	19	<5		
Styrene	5	<5	<5		
1,2-Dichlorobenzene	5	<5	<5		
1,3-Dichlorobenzene	5	<5	<5		
1,4-Dichlorobenzene	5	<5	<5		
Xylene, total	5	83	<5		
Trichlorofluoromethane	5	<5	<5		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Sample introduction by EPA Method 5030.

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-627, C2-08-628, C2-08-629

QC Matrix Spike and Duplicate Spike Results

Matrix: Soil

Analyte	Sample ID	Date of Analysis	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD[a], %
EPA 8240:							
1,1-Dichloroethene	C208384-01	08/24/92	50	mg/Kg	108	105	2.44
Trichloroethene	C208384-01	08/24/92	50	mg/Kg	100	95.0	5.33
Benzene	C208384-01	08/24/92	50	mg/Kg	112	102	8.60
Toluene	C208384-01	08/24/92	50	mg/Kg	97.2	98.8	1.60
Chlorobenzene	C208384-01	08/24/92	50	mg/Kg	97.8	97.6	0.20

Sample and Sample Duplicate Results

Matrix: Air

Analyte	Sample ID	Date of Analysis	Sample Results	Sample Duplicate Results	Units	RPD[a], %
Modified EPA 8020:						
Benzene	C208650-5	08/26/92	121	120	ug/L	0.830
Toluene	C208650-5	08/26/92	26.1	26.1	ug/L	0
Ethylbenzene	C208650-5	08/26/92	1.36	1.07	ug/L	23.9
Xylene, total	C208650-5	08/26/92	5.09	4.13	ug/L	20.8
Modified EPA 8020:						
Benzene	C208650-5	08/26/92	121	120	ug/L	0.830
Toluene	C208650-5	08/26/92	26.1	26.1	ug/L	0
Ethylbenzene	C208650-5	08/26/92	1.36	1.07	ug/L	23.9
Xylene, total	C208650-5	08/26/92	5.09	4.13	ug/L	20.8

a. See attached table for acceptability limits.

QC Acceptability Limits

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
Modified EPA 8020:						
Benzene	80 - 120	30	30	55 - 129	24 - 127	70 - 147
Toluene	80 - 120	30	30	72 - 149	17 - 124	67 - 150
Ethylbenzene	80 - 120	30	30	75 - 138	19 - 129	69 - 145
Xylene	80 - 120	30	30	74 - 147	23 - 124	71 - 152
Modified EPA 8015:						
Gasoline	---	30	30	---	---	

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
Diesel	---	30	30	63 - 127	58 - 144	48 - 134
EPA 8010/8020:						
Chlorobenzene	80 - 120	30	---	34 - 134	58 - 126	62 - 111
Benzene	80 - 120	30	---	66 - 118	24 - 127	58 - 127
Toluene	80 - 120	30	---	53 - 115	17 - 124	60 - 120
Ethylbenzene	80 - 120	30	---	43 - 131	19 - 129	58 - 126
Xylene, total	80 - 120	30	---	55 - 115	23 - 124	63 - 128
1,1-Dichloroethene	80 - 120	30	---	30 - 160	72 - 116	56 - 138
Trichloroethene	80 - 120	30	---	78 - 184	79 - 120	82 - 187
EPA 8080:						
Heptachlor	80 - 120	30	---	---	34 - 111	34 - 111
Aldrin	80 - 120	30	---	---	42 - 122	42 - 122
DDE	80 - 120	30	---	---	30 - 145	30 - 145
Dieldrin	80 - 120	30	---	---	36 - 146	36 - 146
Endrin	80 - 120	30	---	---	30 - 147	30 - 147
DDD	80 - 120	30	---	---	31 - 141	31 - 114
DDT	80 - 120	30	---	---	10 - 180	10 - 180
Arochlor 1260	45 - 127	30	---	---	53 - 128	53 - 128

GTEL ENVIRONMENTAL LABORATORIES, INC.

QC Acceptability Limits

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
EPA 8310:						
Fluorene	80 - 120	68	---	---	---	49 - 116
Anthracene	80 - 120	41.7	---	---	---	24 - 116
Chrysene	80 - 120	65.2	---	---	---	44 - 128
Benzo(a)pyrene	80 - 120	52.8	---	---	---	26 - 126
Naphthalene	80 - 120	42.3	---	---	---	51 - 106
EPA 8240:						
All 8240 Compounds	60 - 140	---	---	---	---	---
Trichloroethene	---	14	24	71 - 120	62 - 137	71 - 120
Toluene	---	13	21	76 - 125	59 - 139	76 - 125
Chlorobenzene	---	13	21	75 - 130	60 - 133	75 - 130
1,1-Dichloroethene	---	14	22	61 - 145	59 - 172	61 - 145
Benzene	---	11	21	76 - 127	66 - 142	76 - 127
TPH/IR:	80 - 120	20	20	70 - 130	70 - 130	70 - 130
Metals:						
Arsenic	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Barium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Cadmium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Chromium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Lead	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Mercury	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Selenium	90 - 110	20	20	80 - 120	80 - 120	90 - 110
Silver	90 - 110	20	20	80 - 120	80 - 120	90 - 110
Wet Chemistry:						
TOC	90 - 110	20	NA	90 - 110	NA	90 -110

NA = Not Applicable.

GTEL ENVIRONMENTAL LABORATORIES, INC.

ARCO Products Company
Division of Atlantic Richfield Company

Chain of Custody

Task Order No. 276-92-2

ARCO Facility no. 276	City (Facility) OAKLAND, CA	Project manager (Consultant) RESNA INDUSTRIES	Laboratory name GTEL
ARCO engineer MICHAEL WHELAN	Telephone no. (ARCO) 571-2449	Telephone no. (Consultant) (408) 264-7723	Fax no. (Consultant) (408) 264-2435	Contract number
Consultant name RESNA INDUSTRIES	Address (Consultant) 3315 ALMADEN EXPRESSWAY #34, SAN JOSE 95118		Method of shipment COURIER

Sample I.D	Lab no	Container no.	Matrix: Soil	Water	Other: Air	Preservation: Ice	Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX TPH EPA M602/8020/8015	TPH Modified 8015 Gas / Diesel	Oil and Grease 413.1 / 413.2	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	Sem. VOA: TCLP Metals / VOA	CAM Metals EPA 6010/7000 TTLC / STLC	Leac Org./DHS / Leac EPA 7420/7421
AS-VW7-30					X			08/24	11:50		X									
AS-VW2-30					X				12:50		X									
AS-VW3-30					X				1:45		X									
AS-VW6-30					X				1:25		X									
AS-VW1-30					X				2:00		X									
AS-VW4-30					X				3:40		X									
AS-MW2-30					X				4:25		X									
AS-VW5-30					X				5:10		X									
AS-COMB-30	01				X				6:00			X				X				
AS-VW3-30					X				6:55	X	X					X				
method BLK.	02																			

Condition of sample: In a cooler

Temperature received:

Relinquished by sampler	Date 08/25	Time 8:40pm	Received by
Relinquished by Susan Concord Courier	Date 8/25/92	Time 11:45	Received by Susan Concord Courier 8/25/92 9:45
Relinquished by	Date	Time	Received by laboratory Kathy Blair Date 8/25/92 Time 12:45

Special detection Limit/reporting

Special QA/QC

BOY 8

Remarks

Please report results in mg/m3. Fax result conf. No

Lab number 208629

Turnaround time

- Priority Rush: 1 Business Day
- Rush: 2 Business Days
- Expedited: 5 Business Days
- Standard: 10 Business Days

GTEL
ENVIRONMENTAL
LABORATORIES, INC.
Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

RECEIVED
1992

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-652

September 2, 1992

Valli Voruganti
RESNA Industries
3315 Almaden Expressway, #34
San Jose, CA 95118

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 08/26/92, under task order number 276-92-2.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen

Eileen F. Bullen
Laboratory Director

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-652

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Air

Modified EPA Methods 8020 and 8015[a]

GTEL Sample Number		01	02		
Client Identification		AS VW341830	METHOD BLANK		
Date Sampled		08/25/92	08/25/92		
Date Analyzed		08/26/92	08/26/92		
Analyte	Detection Limit, mg/m^3	Concentration, mg/m^3			
Benzene	0.5	280	<0.5		
Toluene	0.5	190	<0.5		
Ethylbenzene	0.5	55	<0.5		
Xylene, total	0.5	170	<0.5		
BTEX, total	--	700	--		
Gasoline	10	9500	<10		
BFB surrogate, % recovery		93.9	82.5		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-652

Sample and Sample Duplicate Results

Matrix: Air

Analyte	Sample ID	Date of Analysis	Sample Results	Sample Duplicate Results	Units	RPD[a], %
Modified EPA 8020:						
Benzene	C208650-05	08/26/92	121	120	ug/L	0.830
Toluene	C208650-05	08/26/92	26.1	26.1	ug/L	0
Ethylbenzene	C208650-05	08/26/92	1.36	1.07	ug/L	23.9
Xylene, total	C208650-05	08/26/92	5.09	4.13	ug/L	20.8

a. See attached table for acceptability limits.

QC Acceptability Limits

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
Modified EPA 8020:						
Benzene	80 - 120	30	30	55 - 129	24 - 127	70 - 147
Toluene	80 - 120	30	30	72 - 149	17 - 124	67 - 150
Ethylbenzene	80 - 120	30	30	75 - 138	19 - 129	69 - 145
Xylene	80 - 120	30	30	74 - 147	23 - 124	71 - 152
Modified EPA 8015:						
Gasoline	---	30	30	---	---	

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
Diesel	---	30	30	63 - 127	58 - 144	48 - 134
EPA 8010/8020:						
Chlorobenzene	80 - 120	30	---	34 - 134	58 - 126	62 - 111
Benzene	80 - 120	30	---	66 - 118	24 - 127	58 - 127
Toluene	80 - 120	30	---	53 - 115	17 - 124	60 - 120
Ethylbenzene	80 - 120	30	---	43 - 131	19 - 129	58 - 126
Xylene, total	80 - 120	30	---	55 - 115	23 - 124	63 - 128
1,1-Dichloroethene	80 - 120	30	---	30 - 160	72 - 116	56 - 138
Trichloroethene	80 - 120	30	---	78 - 184	79 - 120	82 - 187
EPA 8080:						
Heptachlor	80 - 120	30	---	---	34 - 111	34 - 111
Aldrin	80 - 120	30	---	---	42 - 122	42 - 122
DDE	80 - 120	30	---	---	30 - 145	30 - 145
Dieldrin	80 - 120	30	---	---	36 - 146	36 - 146
Endrin	80 - 120	30	---	---	30 - 147	30 - 147
DDD	80 - 120	30	---	---	31 - 141	31 - 114
DDT	80 - 120	30	---	---	10 - 180	10 - 180
Arochlor 1260	45 - 127	30	---	---	53 - 128	53 - 128

GTEL ENVIRONMENTAL LABORATORIES, INC.

QC Acceptability Limits

Analyte	QC Check Sample Recovery (%)	Duplicate Water Sample RPD (%)	Duplicate Soil Sample RPD (%)	Water Matrix Spike Recovery (%)	Soil Matrix Spike Recovery (%)	Reagent Water Spike Recovery (%)
EPA 8310:						
Fluorene	80 - 120	68	---	---	---	49 - 116
Anthracene	80 - 120	41.7	---	---	---	24 - 116
Chrysene	80 - 120	65.2	---	---	---	44 - 128
Benzo(a)pyrene	80 - 120	52.8	---	---	---	26 - 126
Naphthalene	80 - 120	42.3	---	---	---	51 - 106
EPA 8240:						
All 8240 Compounds	60 - 140	---	---	---	---	---
Trichloroethene	---	14	24	71 - 120	62 - 137	71 - 120
Toluene	---	13	21	76 - 125	59 - 139	76 - 125
Chlorobenzene	---	13	21	75 - 130	60 - 133	75 - 130
1,1-Dichloroethene	---	14	22	61 - 145	59 - 172	61 - 145
Benzene	---	11	21	76 - 127	66 - 142	76 - 127
TPH/IR:	80 - 120	20	20	70 - 130	70 - 130	70 - 130
Metals:						
Arsenic	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Barium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Cadmium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Chromium	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Lead	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Mercury	90 - 110	20	20	80 - 120	80 - 120	80 - 120
Selenium	90 - 110	20	20	80 - 120	80 - 120	90 - 110
Silver	90 - 110	20	20	80 - 120	80 - 120	90 - 110
Wet Chemistry:						
TOC	90 - 110	20	NA	90 - 110	NA	90 -110

NA = Not Applicable.

GTEL
ENVIRONMENTAL LABORATORIES, INC.

ARCO Products Company
Division of AtlanticRichfieldCompany

Chain of Custody

Task Order No. 276-92-2

ARCO Facility no. ARCO 276	City (Facility) Oakland, CA	Project manager (Consultant) RJ ALLI VORUGANTI	Laboratory name GTEL
ARCO engineer MICHAEL WHELAN	Telephone no. (ARCO) (415) 541-244	Telephone no. (Consultant) (408) 264 7723	Fax no. (Consultant) (408) 264 2435	Contract number
Consultant name RESNA INDUSTRIES	Address (Consultant) 3315 ALMADEN EXPRESSWAY, #34 SAN JOSE CA 95118		

Method of shipment: Courier

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas / Diesel	Oil and Grease 413.2	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals / VOA / SVOA	CAM Metals EPA 6010/7000 TTLC / STLC	Lead Org./DHS / Lead EPA 7420/7421
AS-W34-1880	01				Air			08/25			X			8260						
Method Blk.	02													8270						

Special detection Limit/reporting: Report results in mg/m3

Special QA/QC: BSP 7

Remarks: Please fax results

Lab number: C208652

Condition of sample: On a cooler

Temperature received: 9.25

Relinquished by sampler: Alli Voruganti	Date: 08/26/92	Time: 900pm	Received by: Susan Concord Courier	Date: 9/26/92
Relinquished by: Susan Concord Courier	Date: 8/26/92	Time: 1250	Received by:	
Relinquished by:	Date:	Time:	Received by laboratory:	Date:	Time:

Turnaround time

- Priority Rush 1 Business Day [ ]
- Rush 2 Business Days [ ]
- Expedited 5 Business Days [ ]
- Standard 10 Business Days [X]

B C Analytical

1255 Powell Street
Emeryville, CA 94608
510/428-2300
Fax: 510/547-3643

ANALYTICAL REPORT

LOG NO: E92-08-560

Received: 27 AUG 92

Mailed: SEP 05 1992

Mr. Bruce Maeda
Resna Industries
3315 Almaden Expressway, Suite 34
San Jose, California 95118

Project: 61126.10

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION	DATE SAMPLED
08-560-1	AS-PB,1-3	24 AUG 92

PARAMETER	08-560-1
Charcoal Digestion, Date	08.31.92
Lead, ug	7.0

Edward Wilson, Laboratory Director

BCA

RESNA

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PROJECT NO.	PROJECT NAME/SITE
60026.10	ARCO 276 10600 MACARTHUR BLVD OAKLAND, CALIFORNIA

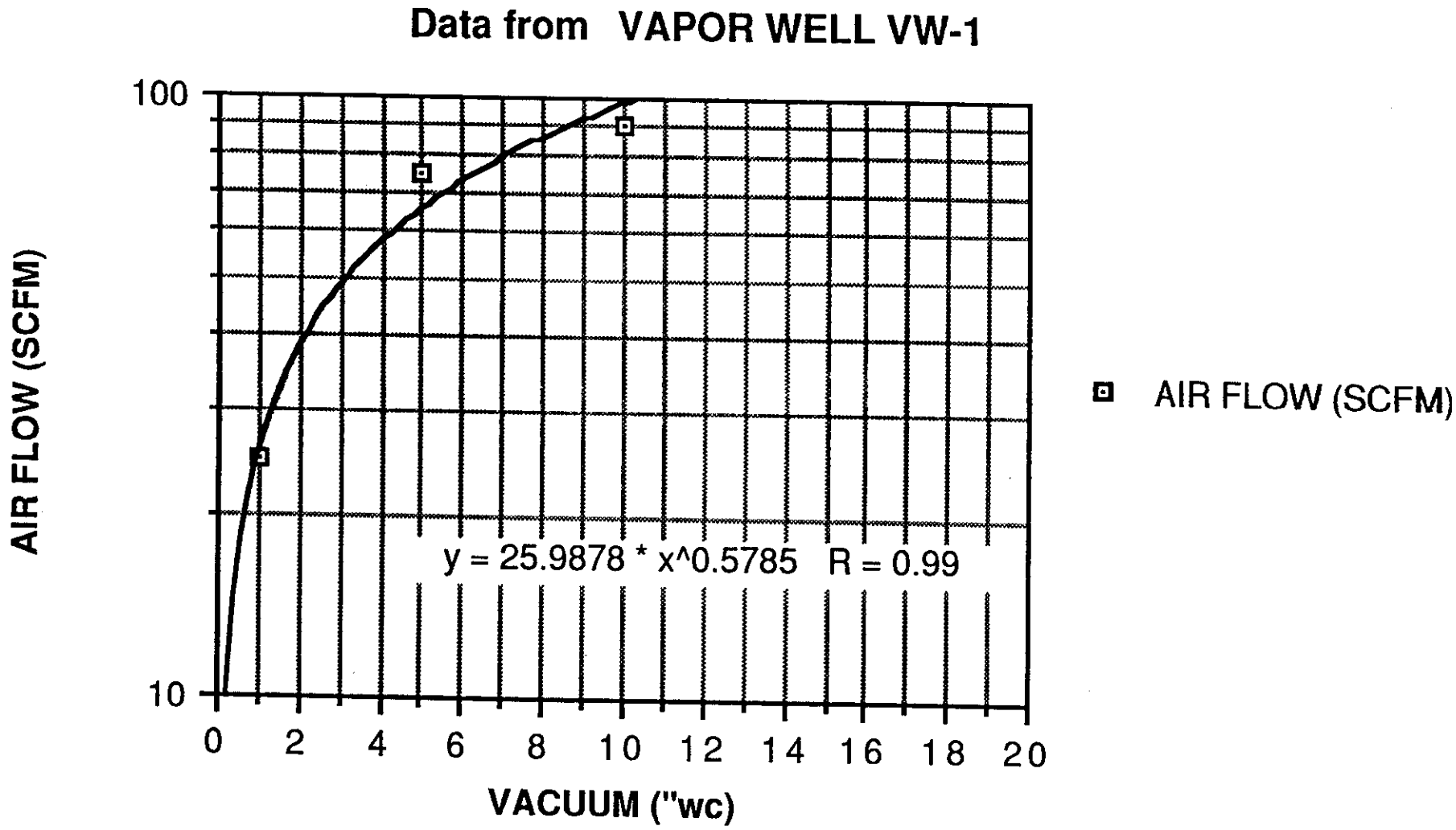
SAMPLERS (SIGN) _____ (PRINT) BRUCE MAGDA

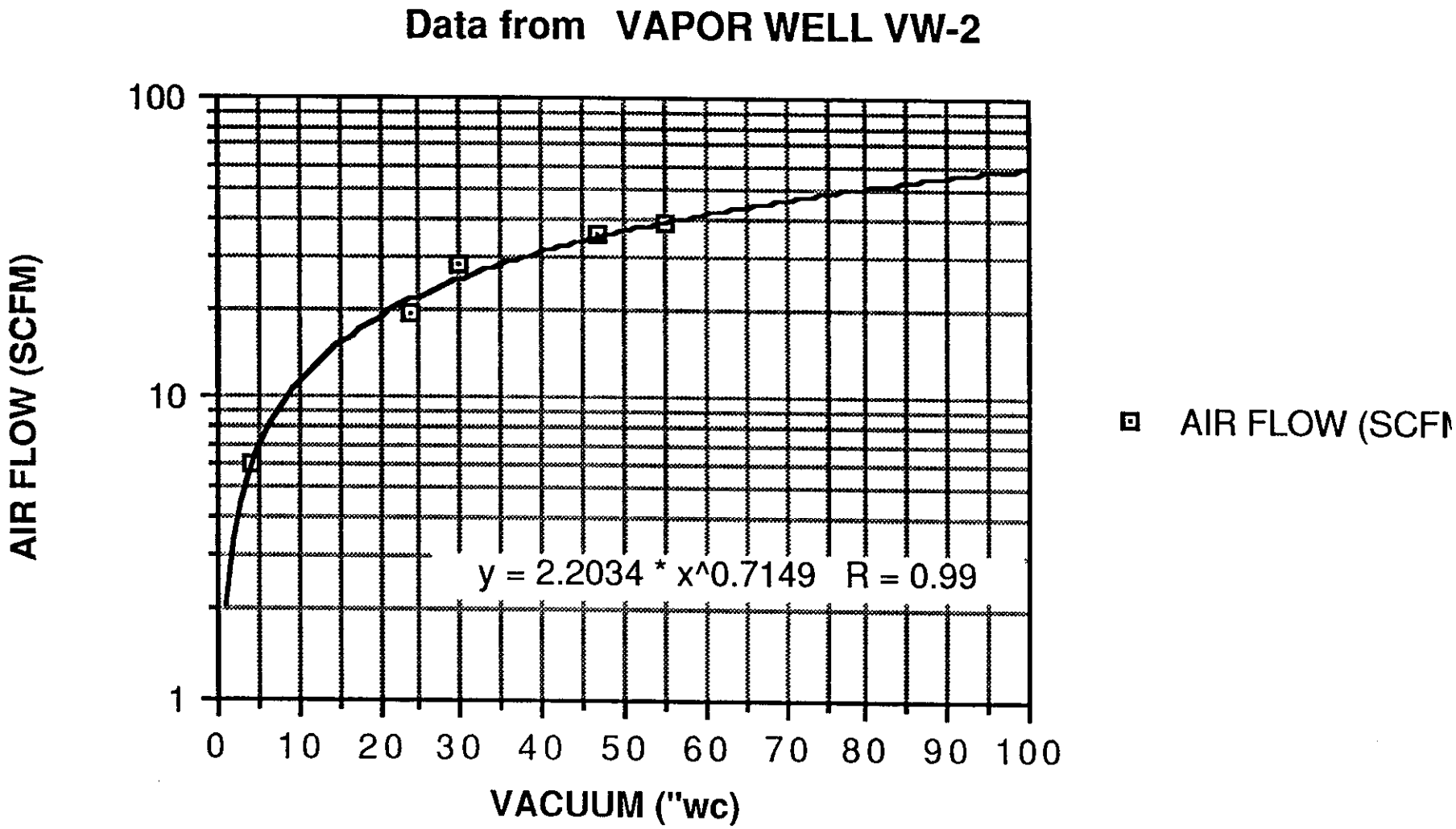
SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES. USED	ICED	NO. CONTAINERS	SAMPLE TYPE	BTEX (602/8020)	TPHg (8015)	TPHd (8015)	TOG 418.1/5520	601/8010	624/8240	625/8270	ORGANIC LEAD	REMARKS
AS-Pb-1	8/24/92	6:36pm	✓				1								X		SAMPLE AIRFLOW = 2.5 ft³/hr.
AS-Pb-2	8/24/92	7:01pm	✓				1								X		SAMPLE TIME = 17 minutes
AS-Pb-3	8/24/92	7:21pm	✓				1								X		

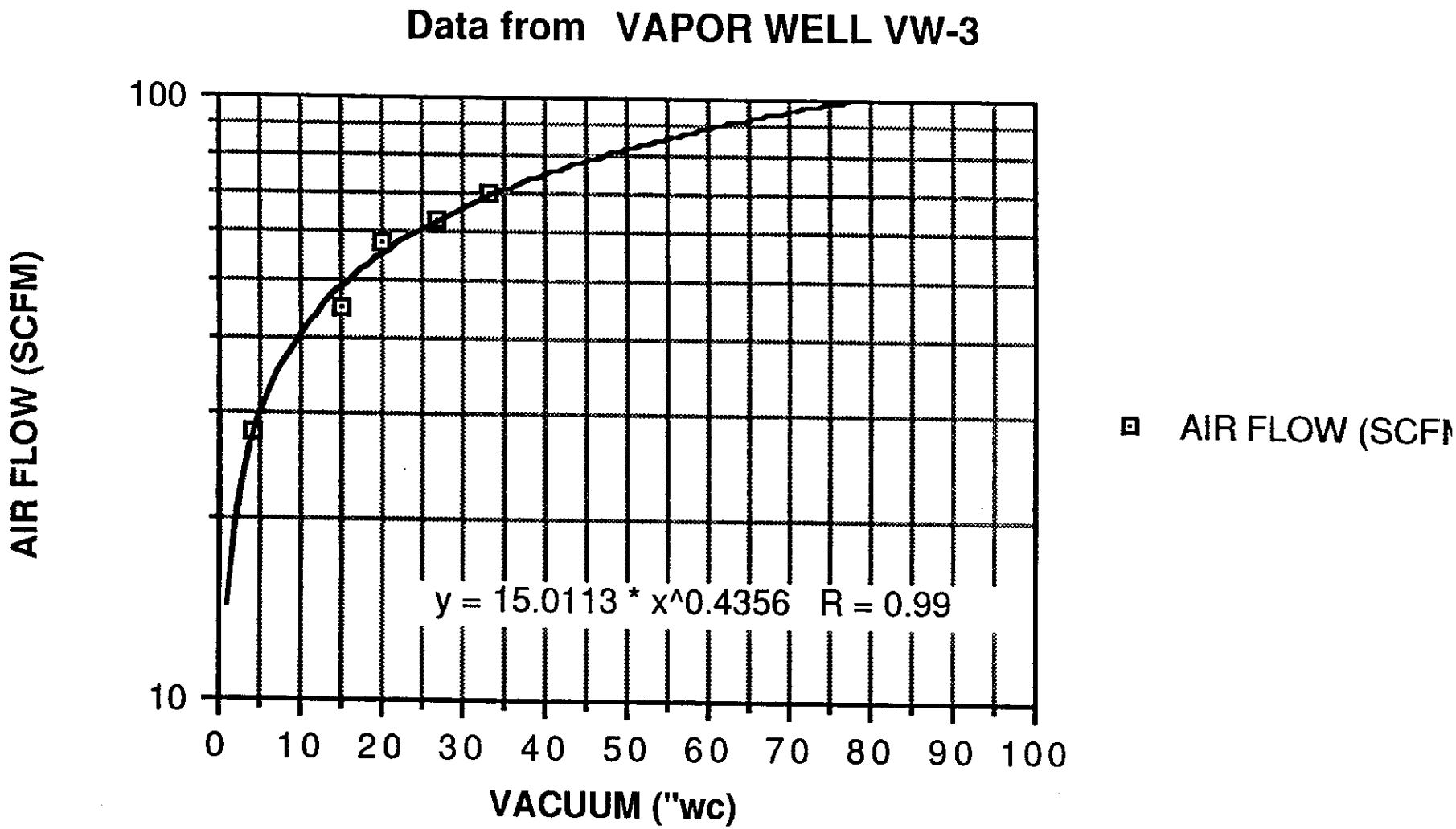
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	LABORATORY:	PLEASE SEND RESULTS TO:
[signature]	8/26/92	2:55	[signature]	BROWN & CALDWELL	BRUCE MAGDA, RESNA
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:		
[signature]	8/27/92	1745	[signature]		
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	REQUESTED TURNAROUND TIME:	
				NORMAL ARCO	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:	RECEIPT CONDITION:	PROJECT MANAGER:

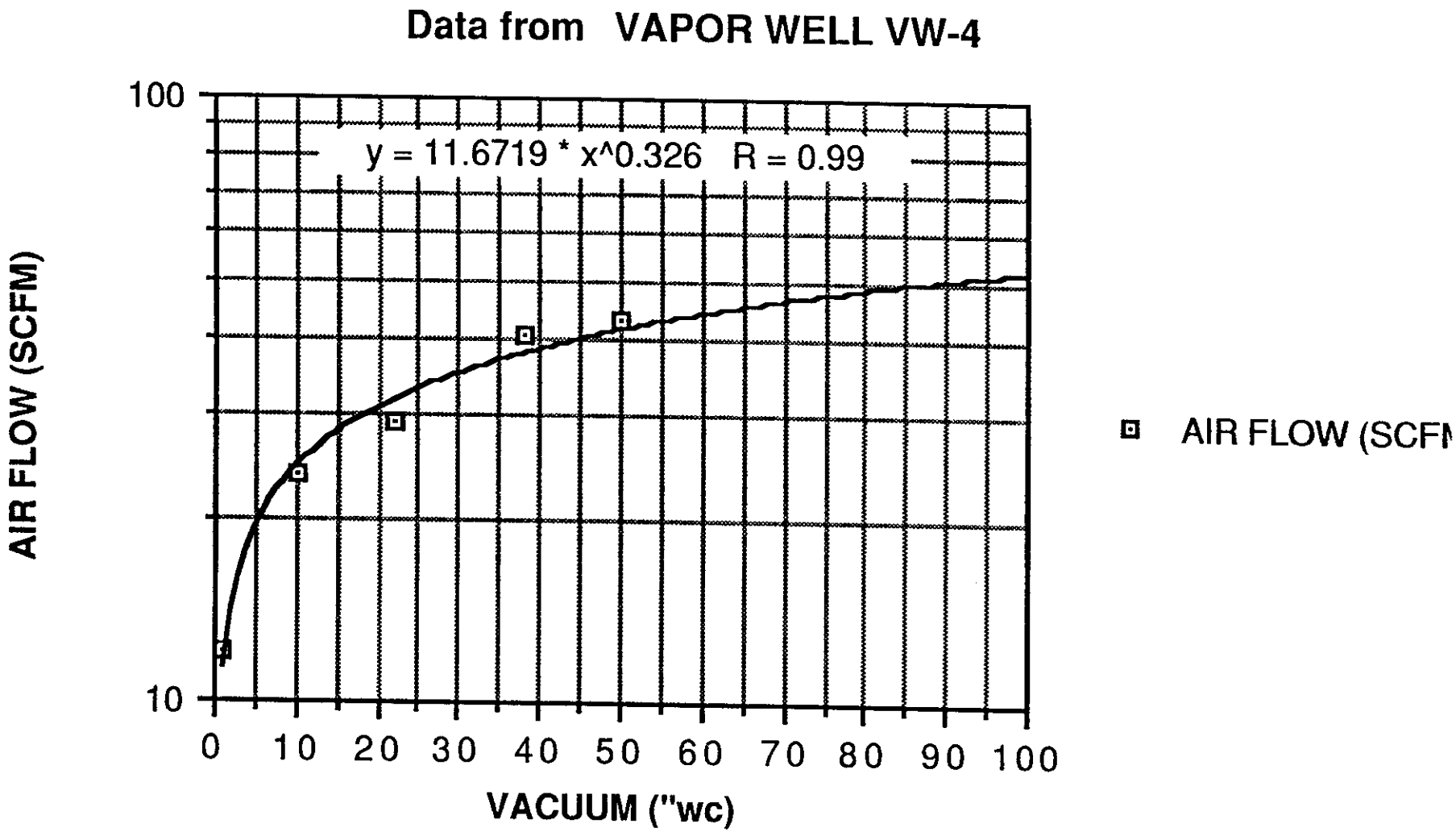
APPENDIX H

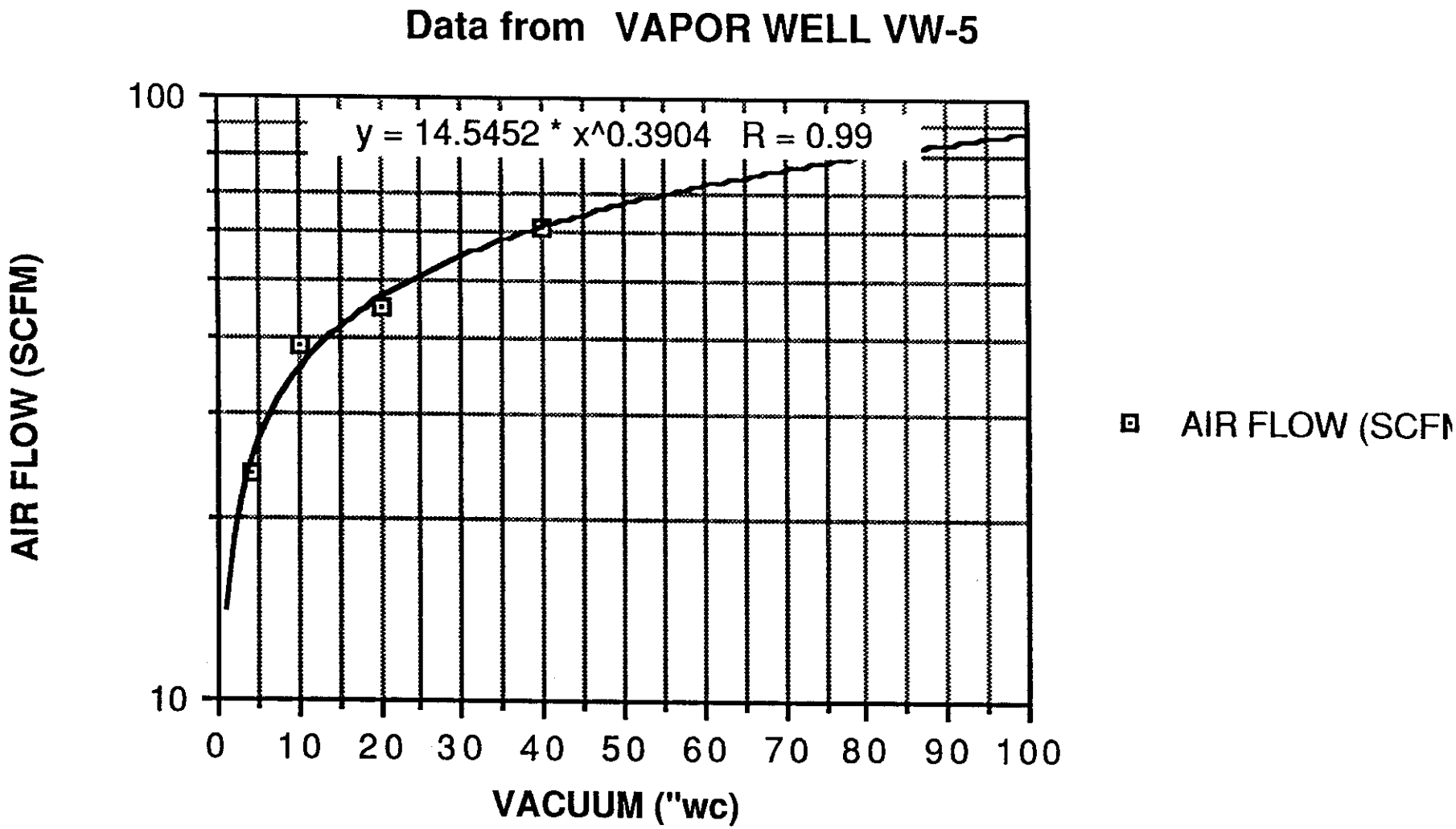
WELLHEAD AIR FLOW CHARACTERISTICS

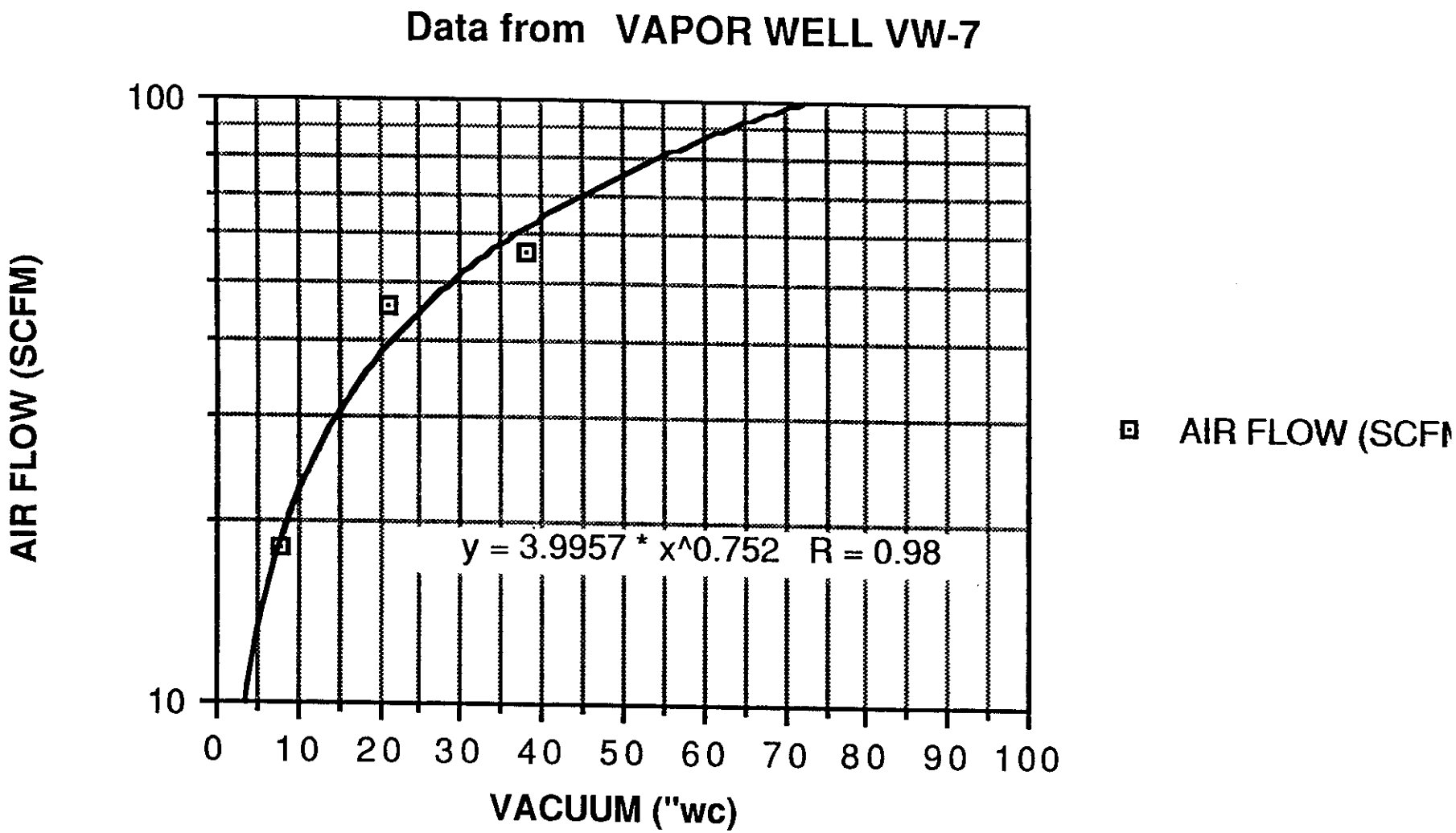

Data from VAPOR WELL VW-1
100
10
AIR FLOW (SCFM)
y = 25.9878 * x^0.5785 R = 0.99
0
2
4
6
8
10
12
14
16
18
20
VACUUM ("wc)
AIR FLOW (SCFM)

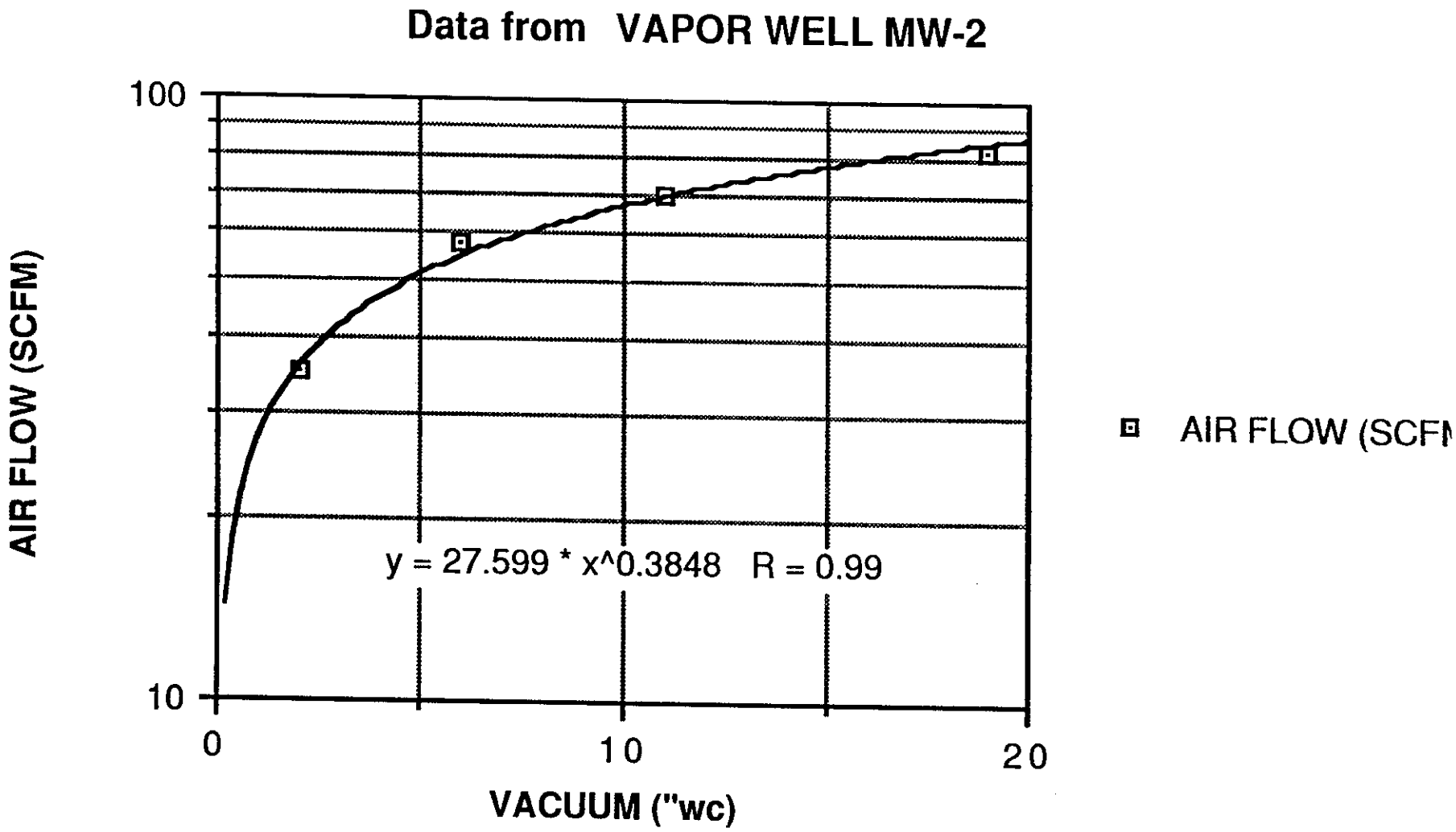

Data from VAPOR WELL VW-2
AIR FLOW (SCFM)
100
10
1
0
10
20
30
40
50
60
70
80
90
100
VACUUM ("wc)
y = 2.2034 * x^0.7149 R = 0.99
AIR FLOW (SCFM


Data from VAPOR WELL VW-3
AIR FLOW (SCFM)
100
10
0
10
20
30
40
50
60
70
80
90
100
VACUUM ("wc)
y = 15.0113 * x^0.4356 R = 0.99
AIR FLOW (SCFM


Data from VAPOR WELL VW-4
y = 11.6719 * x^0.326 R = 0.99
100
10
AIR FLOW (SCFM)
0 10 20 30 40 50 60 70 80 90 100
VACUUM ("wc)
AIR FLOW (SCFM


Data from VAPOR WELL VW-5
y = 14.5452 * x^0.3904 R = 0.99
100
10
AIR FLOW (SCFM)
0 10 20 30 40 50 60 70 80 90 100
VACUUM ("wc)
AIR FLOW (SCFM

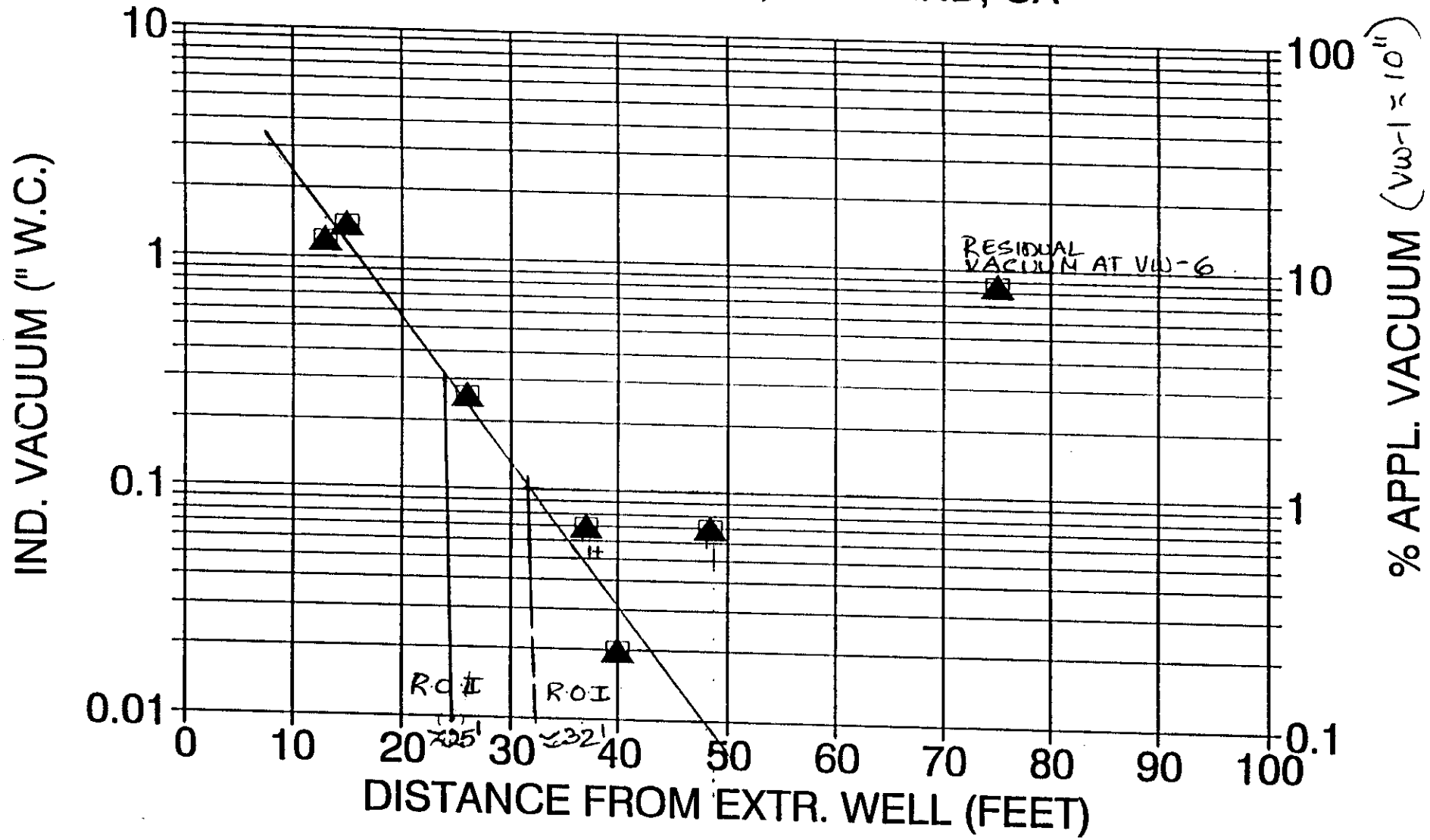

Data from VAPOR WELL VW-7
100
10
AIR FLOW (SCFM)
y = 3.9957 * x^0.752 R = 0.98
0 10 20 30 40 50 60 70 80 90 100
VACUUM ("wc)
AIR FLOW (SCFM


Data from VAPOR WELL MW-2
100
10
AIR FLOW (SCFM)
y = 27.599 * x^0.3848 R = 0.99
0
10
20
VACUUM ("wc)
AIR FLOW (SCFM

APPENDIX I

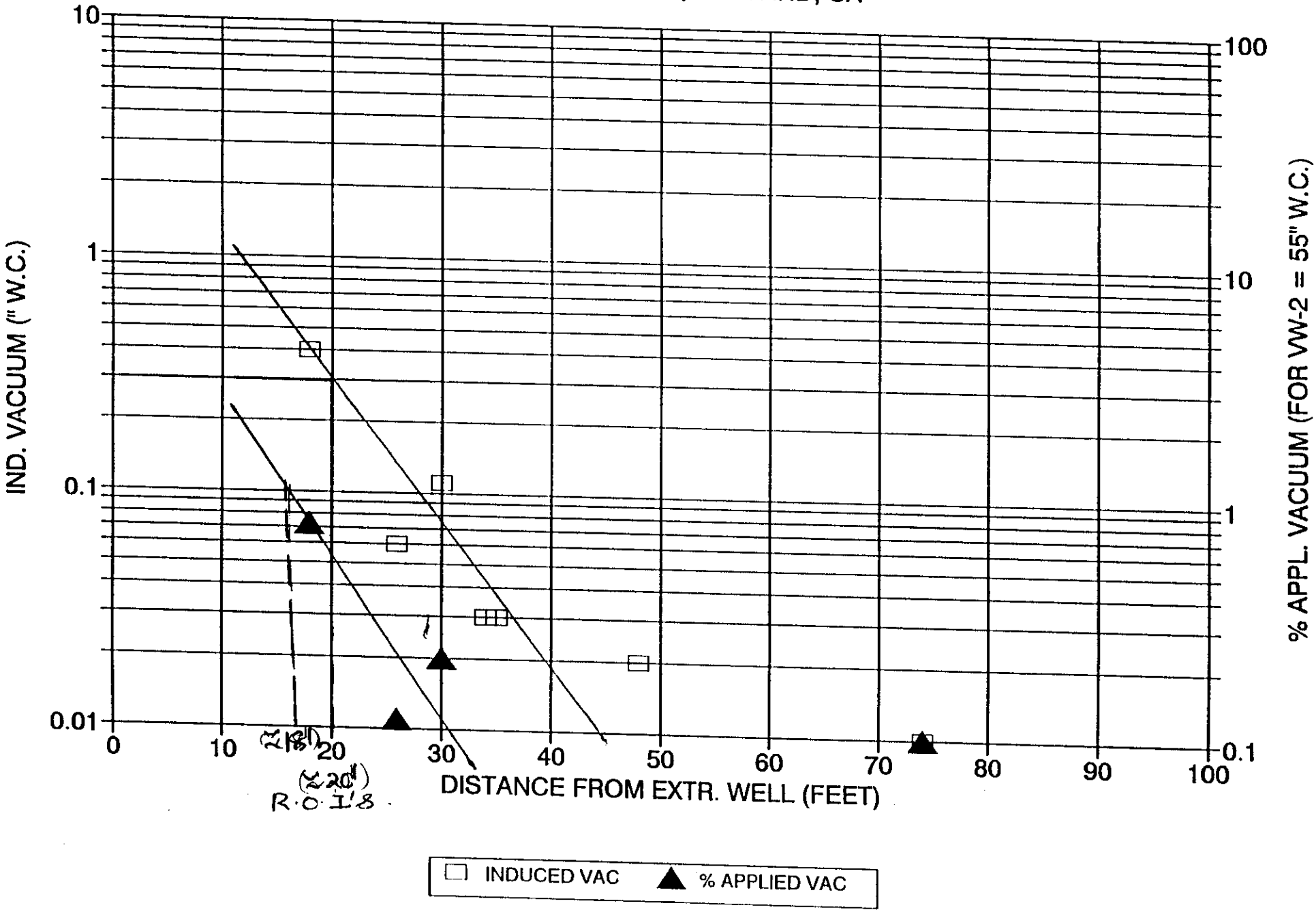
RADIUS OF INFLUENCE GRAPHS

R.O.I OF EXTR. WELL VW-1
ARCO STATION 276, OAKLAND, CA



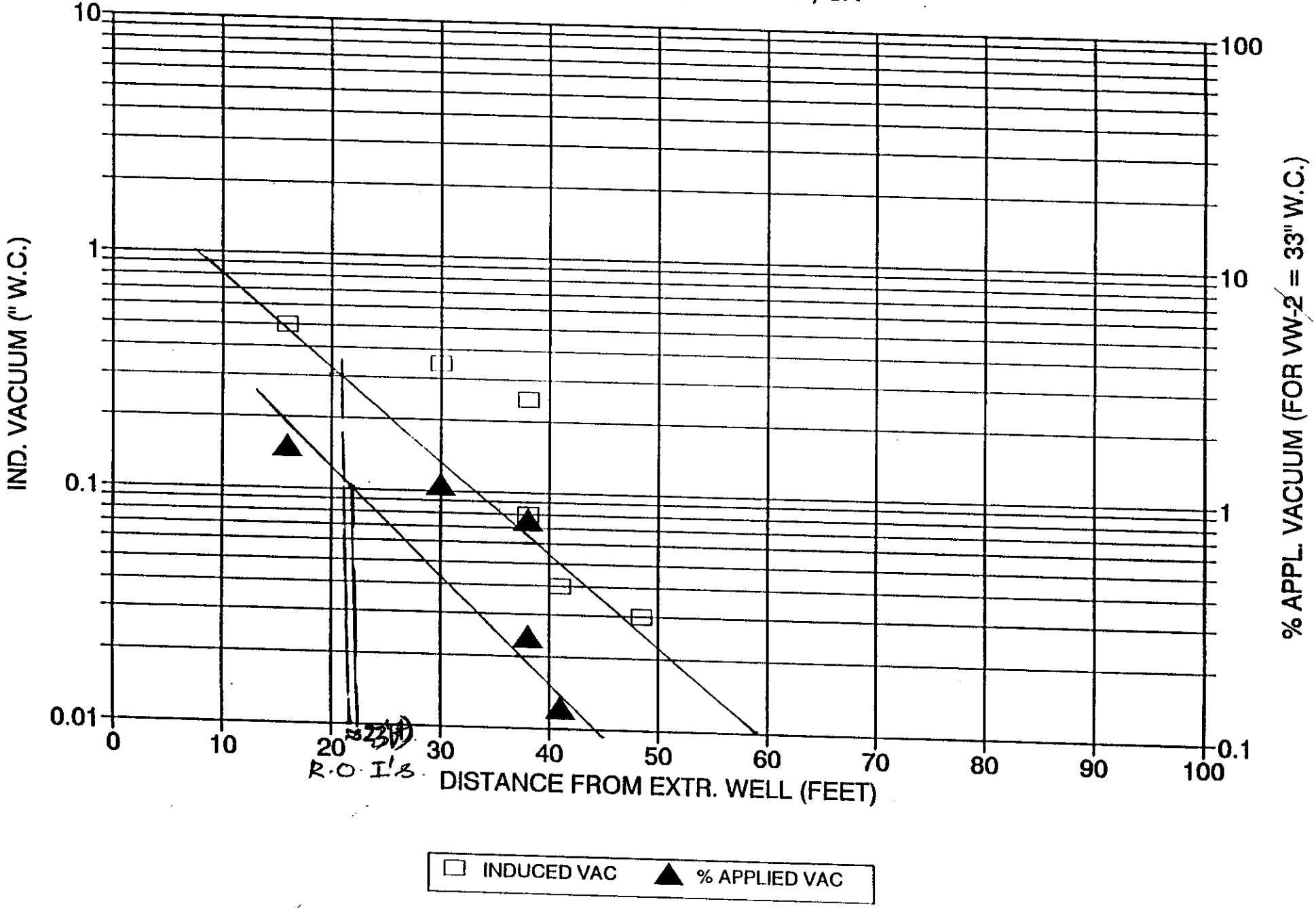
R.O.I OF EXTR. WELL VW-2

ARCO STATION 276, OAKLAND, CA



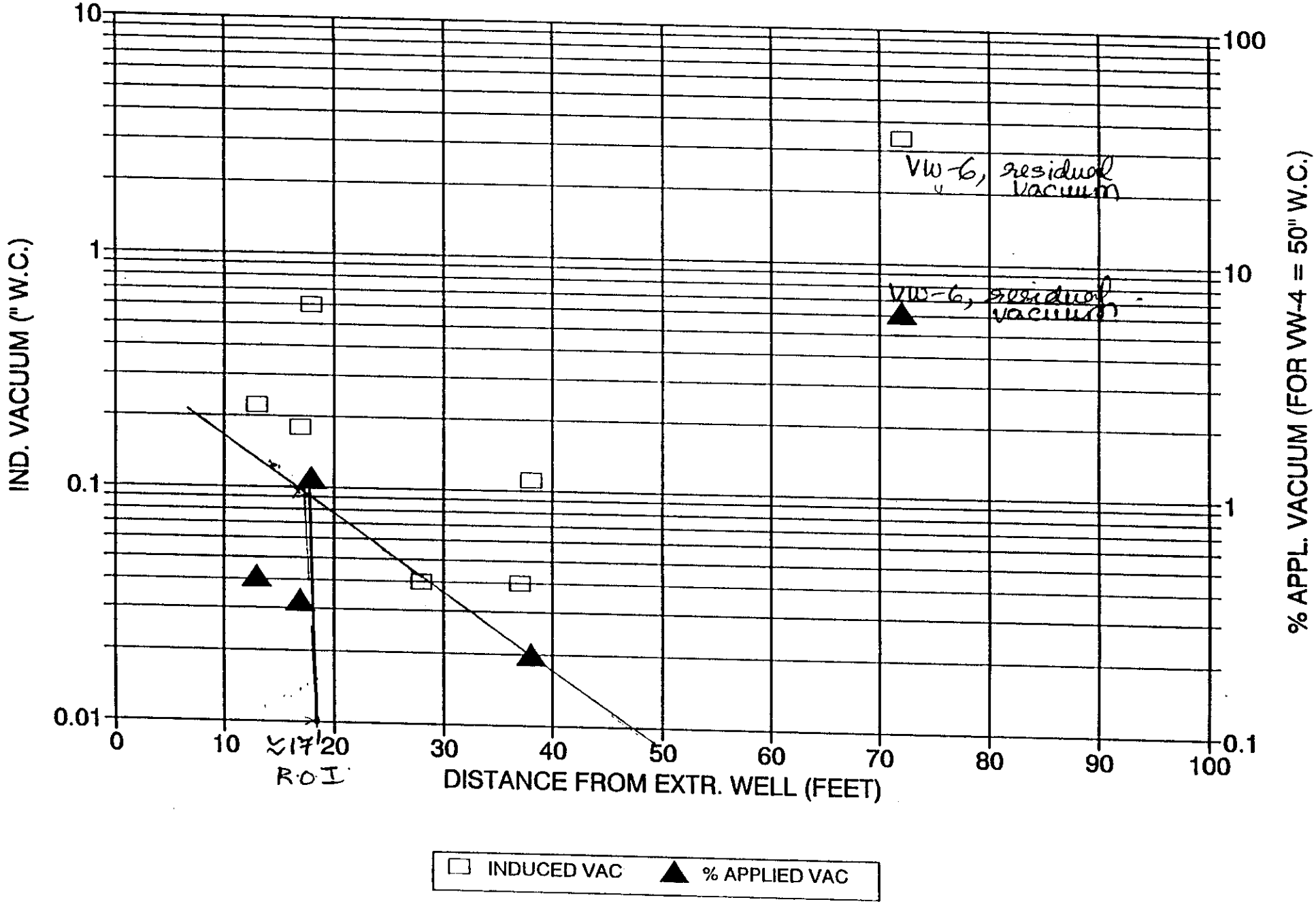
R.O.I OF EXTR. WELL VW-3

ARCO STATION 276, OAKLAND, CA



R.O.I OF EXTR. WELL VW-4

ARCO STATION 276, OAKLAND, CA



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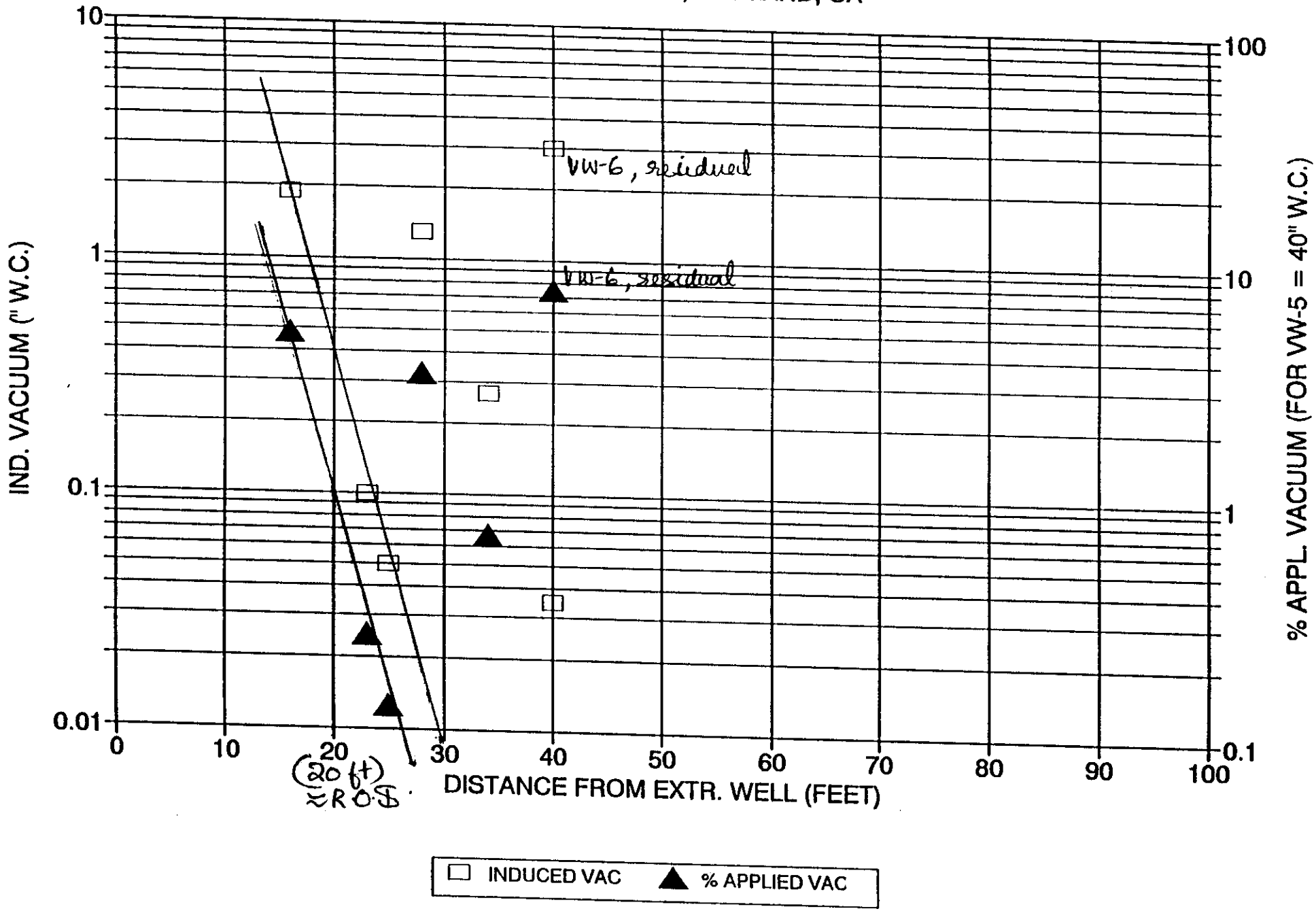
ARCO STATION 276, OAKLAND, CA



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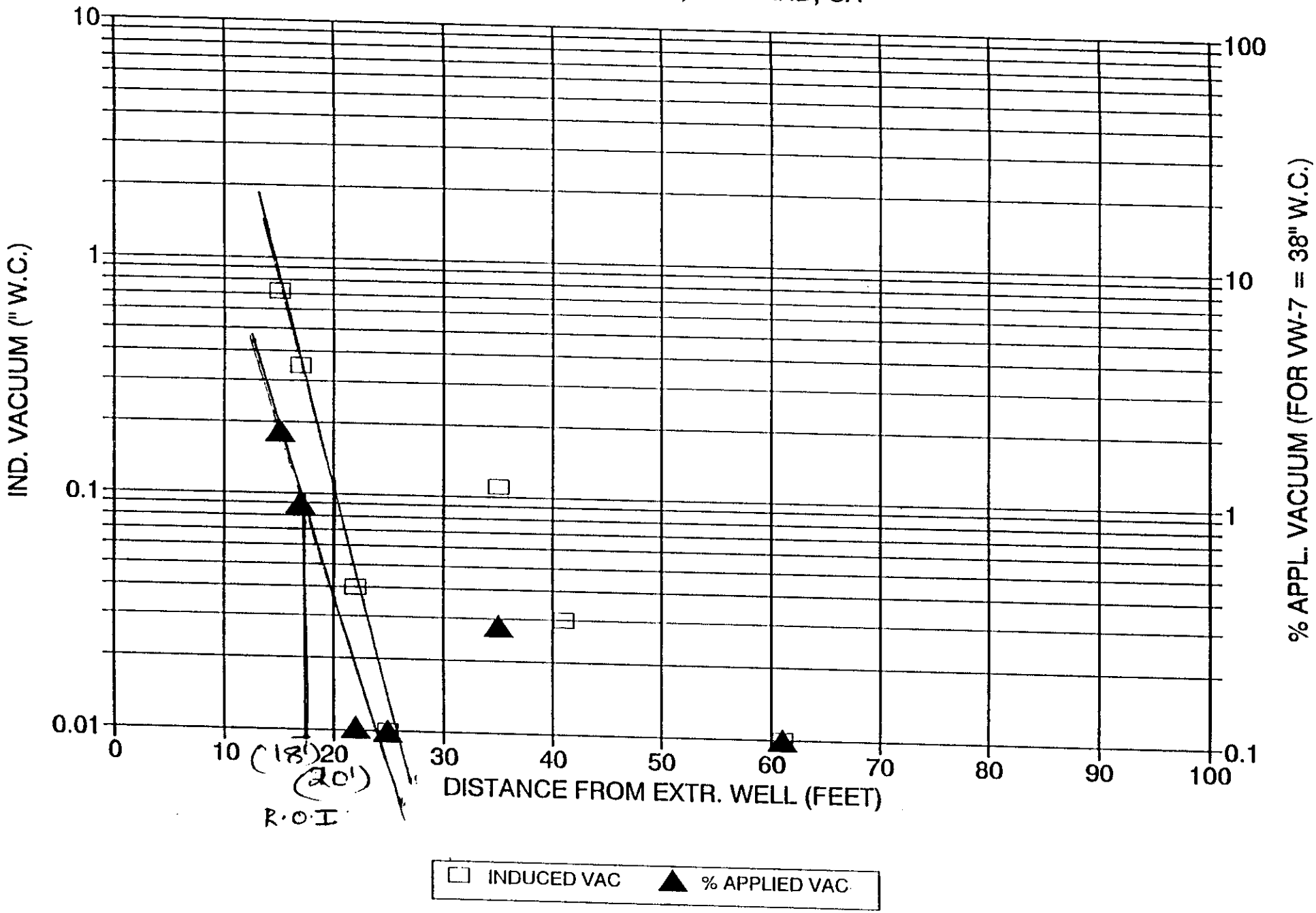
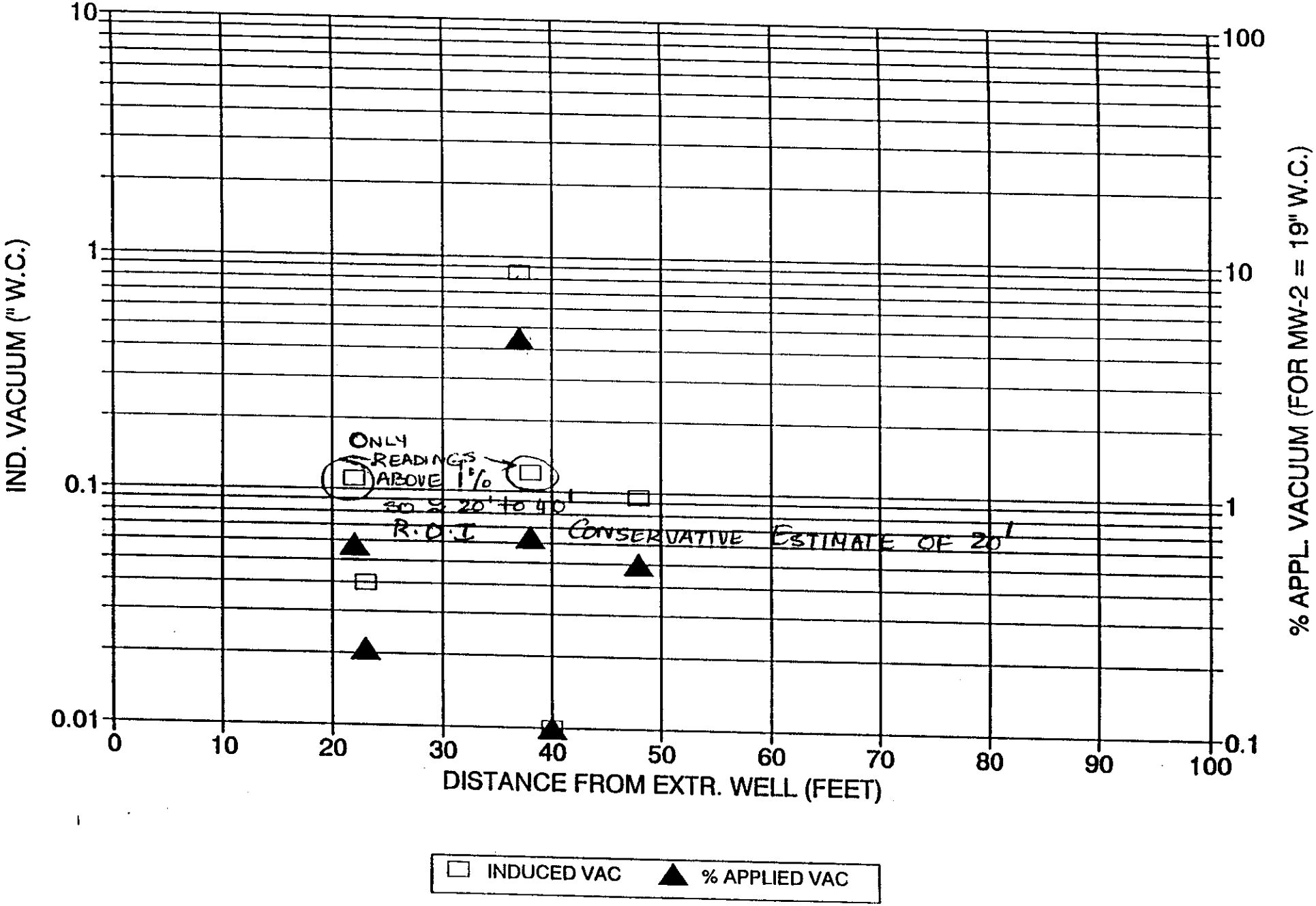
ARCO STATION 276, OAKLAND, CA



R.O.I OF EXTR. WELL MW-2

ARCO STATION 276, OAKLAND, CA



GTEL
ENVIRONMENTAL
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Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-628

August 31, 1992

Valli Voruganti
RESNA Industries
3315 Almaden Expressway, #34
San Jose, CA 95118

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 08/25/92, under task order number 276-92-2.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen

Eileen F. Bullen
Laboratory Director

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-628

Table 1

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Gasoline in Air

Modified EPA Method 8015[a]

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

GTEL Sample Number		01	02		
Client Identification		AS COMB-30	METHOD BLANK		
Date Sampled		08/24/92	08/24/92		
Date Analyzed		08/26/92	08/26/92		
Analyte	Detection Limit, mg/m^3	Concentration, mg/m^3			
Gasoline	10	10000	<10		
BFB surrogate, % recovery		95.0	79.8		
Detection Limit Multiplier		1	1		

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Eileen F. Bullen
Laboratory Director

Client Number: RSN04ARC01
Facility Number: 276
Arco Representative: Michael Whelan
Work Order Number: C2-08-627

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Air

Modified EPA Methods 8020 and 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		AS VW7-50	AS VW-2 36	AS VW3-30	AS VW6-30
Date Sampled		08/24/92	08/24/92	08/24/92	08/24/92
Date Analyzed		08/25/92	08/25/92	08/25/92	08/25/92
Analyte	Detection Limit, mg/m^3	Concentration, mg/m^3			
Benzene	0.5	4	1800	560	9
Toluene	0.5	3	600	160	6
Ethylbenzene	0.5	<0.5	74	58	4
Xylene, total	0.5	3	170	150	15
BTEX, total	--	10	2600	930	34
Gasoline	10	330	48000	15000	510
BFB surrogate, % recovery		81.6	98.0	94.7	88.0
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

Client Number: RSN04ARC01
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Arco Representative: Michael Whelan
Work Order Number: C2-08-627

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and
Total Petroleum Hydrocarbons as Gasoline in Air

Modified EPA Methods 8020 and 8015[a]

GTEL Sample Number		05	06	07	08
Client Identification		AS VW1-30	AS VW4-30	AS MW2-30	AS MW5-30
Date Sampled		08/24/92	08/24/92	08/24/92	08/24/92
Date Analyzed		08/25/92	08/25/92	08/25/92	08/25/92
Analyte	Detection Limit, mg/m^3	Concentration, mg/m^3			
Benzene	0.5	120	500	430	510
Toluene	0.5	47	84	350	270
Ethylbenzene	0.5	6	18	36	47
Xylene, total	0.5	25	37	200	150
BTEX, total	--	200	640	1000	980
Gasoline	10	5100	13000	11000	16000
BFB surrogate, % recovery		91.6	88.5	96.1	103
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

Client Number: RSN04ARC01
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Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Air

Modified EPA Methods 8020 and 8015[a]

GTEL Sample Number		09	10		
Client Identification		AS VW34-50	METHOD BLANK		
Date Sampled		08/24/92	08/24/92		
Date Analyzed		08/25/92	08/25/92		
Analyte	Detection Limit, mg/m^3	Concentration, mg/m^3			
Benzene	0.5	560	<0.5		
Toluene	0.5	120	<0.5		
Ethylbenzene	0.5	43	<0.5		
Xylene, total	0.5	120	<0.5		
BTEX, total	--	840	--		
Gasoline	10	11000	<10		
BFB surrogate, % recovery		95.5	82.5		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.