



Project No. E7744
June 23, 1999

GEOTECHNICAL

GEOLOGICAL

ENVIRONMENTAL

SPECIAL
INSPECTIONS

MATERIALS
TESTING

Mr. John Hughes
Citation Homes
404 Saratoga Avenue, Suite 100
Santa Clara, California 95050

Subject: Proposed Residential Development
600 and 621 Daggett Avenue
Future Tract 7003
Union City, California
ADDITIONAL PHASE II ENVIRONMENTAL SAMPLING

- Reference: 1) *Phase II Environmental Site Assessment*
By Terrasearch, Inc.
Dated March 19, 1999
- 2) *Additional Phase II Surficial Metal and Organochloride
Pesticide Phase II Environmental Sampling*
By Terrasearch, Inc.
Dated April 26, 1999

Dear Mr. Hughes:

In accordance with your authorization, **TERRASEARCH, inc.** has prepared this Additional Phase II Environmental Site Assessment to evaluate the concentrations of organochloride pesticides in surficial soil at 600 and 621 Daggett Avenue and halogenated volatile organics (HVOs) in the soil at 621 Daggett Avenue, Union City, California. The location of the site is shown on Figure 1, Site Vicinity Map.

This additional work has been requested by Ms. Maduhla Logan of the Alameda County Health Care Services Agency (ACHCSA) and Mr. Lorenzo Perez of Union City Environmental Programs Division, in our meeting held on June 10, 1999, and from the results of References 1 and 2.

On June 15, 1999, a **TERRASEARCH, inc.** field geologist was on-site to perform the additional soil sampling. As discussed with Ms. Logan and Mr. Perez, composite soil samples were collected from the 600 Daggett Avenue site and discrete soil samples were collected from the 621 Daggett Avenue site. 600 Daggett Avenue was divided into six sampling areas and composite soil samples 1A, 1B, 1C and 1D through 6A, 6B, 6C and 6D were collected from the surficial soil (1 foot below ground surface [bgs]) using a hand-sampler lined with clean brass tubes. Once the soil samples were collected, they were removed from the hand-sampler, capped, labeled and placed in a pre-chilled ice chest for temporary storage. Locations of the composite soil samples are shown on Figure 2, Site Plan.

SAN JOSE:
6840 Via Del Oro
Suite 110
San Jose, CA 95119
(408) 362-4920
Fax: (408) 362-4926

DUBLIN:
11840 Dublin Blvd.
Dublin, CA 94568
(925) 833-9297
Fax: (925) 833-9548

ELK GROVE:
8788 Elk Grove Blvd.
Building 3, Suite 14
Elk Grove, CA 95624
(916) 686-2878

FREMONT:
43353-B Osgood Rd.
Fremont, CA 94538
(510) 413-0100
Fax: (510) 413-0101

Six discrete soil samples (621-1 through 621-6) were collected from the surficial soil (1-foot bgs) at 621 Daggett Avenue using a hand-sampler lined with clean brass tubes. Once the soil samples were collected, they were removed from the hand-sampler, capped, labeled and placed in a pre-chilled ice chest for temporary storage. In addition, two soil samples (7-2 and 8-2) were collected from approximately two feet bgs at 621 Daggett Avenue site, using a hand-sampler lined with clean brass tubes. Once the soil samples were collected, they were removed from the hand-sampler, capped, labeled and placed in a pre-chilled ice chest for temporary storage. Locations of the discrete soil samples are shown on Figure 2, Site Plan.

All the soil samples collected from the site were transported under chain-of-custody documentation to GeoAnalytical Laboratories, Inc. of Modesto, California, a State-certified hazardous waste testing laboratory (Certification No. 1157) for analysis. Composite soil samples 1A, 1B, 1C and 1D through 6A, 6B, 6C and 6D were composited into six composited soil samples (1A/1B/1C/1D through 6A/6B/6C/6D) and analyzed for organochloride pesticides using Environmental Protection Agency (EPA) Method 8080. Soil samples 621-1 through 621-6 were analyzed for organochloride pesticides using EPA Method 8080 and soil samples 7-2 and 8-2 were analyzed for halogenated volatile organics (HVOs) using EPA Method 8010. The results of the laboratory analysis are listed in Table 1, and are attached to Appendix A.

TABLE 1

Composite all are DDE x 4

↓

print

**LABORATORY ANALYSIS OF SOIL SAMPLES FOR
ORGANOCHLORIDE PESTICIDES AND HVOs**

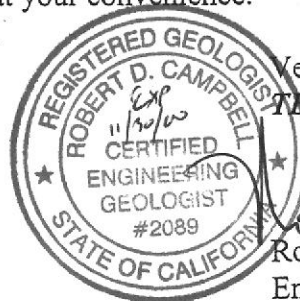
Sample ID	Sample Depth (feet)	DDE (mg/Kg)	DDT (mg/Kg)	Endrin (mg/Kg)	HVOs (mg/Kg)	OTHER PESTICIDES (mg/Kg)	TOTAL PESTICIDES* (mg/Kg)
1A/1B/1C/1D	1.0	0.14	<0.05	<0.01	NA	<0.01 to <0.10	0.56
2A/2B/2C/2D	1.0	0.055	<0.05	<0.01	NA	<0.01 to <0.10	0.22
3A/3B/3C/3D	1.0	0.032	<0.05	<0.01	NA	<0.01 to <0.10	0.128
4A/4B/4C/4D	1.0	0.010	<0.05	<0.01	NA	<0.01 to <0.10	0.04
5A/5B/5C/5D	1.0	0.021	<0.05	<0.01	NA	<0.01 to <0.10	0.084
6A/6B/6C/6D	1.0	0.032	<0.05	<0.01	NA	<0.01 to <0.10	0.128
621-1	1.0	0.072	<0.05	0.019	NA	<0.01 to <0.10	0.091
621-2	1.0	0.082	<0.05	0.074	NA	<0.01 to <0.10	0.156
621-3	1.0	0.070	<0.05	<0.01	NA	<0.01 to <0.10	0.070
621-4	1.0	0.093	<0.05	0.014	NA	<0.01 to <0.10	0.107
621-5	1.0	0.11	<0.05	0.018	NA	<0.01 to <0.10	0.129
621-6	1.0	0.097	<0.05	<0.01	NA	<0.01 to <0.10	0.097
7-2	2.0	NA	NA	NA	<0.005	NA	---
8-2	2.0	NA	NA	NA	<0.005	NA	---

- DDE = 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene using EPA Method 8080.
 DDT = 1,1,1-trichloro-2,2-bis-(p-chlorophenyl)ethane using EPA Method 8080.
 HVOs = Halogenated volatile organics using EPA Method 8010.
 mg/Kg = Milligrams per kilogram, equivalent to parts per million (ppm).
 * = Total pesticide concentrations were multiplied by 4 for the composited soil samples.

Laboratory analytical results reported that low levels of organochloride pesticides were detected within both composited and discrete soil samples collected from 600 and 621 Daggett Avenue. In addition, HVOs were not detected in soil samples 7-2 and 8-2 (less than 0.005 mg/Kg). Organochloride pesticide concentrations are below the action levels for the Cal EPA (even when multiplied by 4).

Based on the laboratory analytical results, **TERRASEARCH, inc.** recommends that further environmental work is **not** warranted at the site, and the site should be closed.

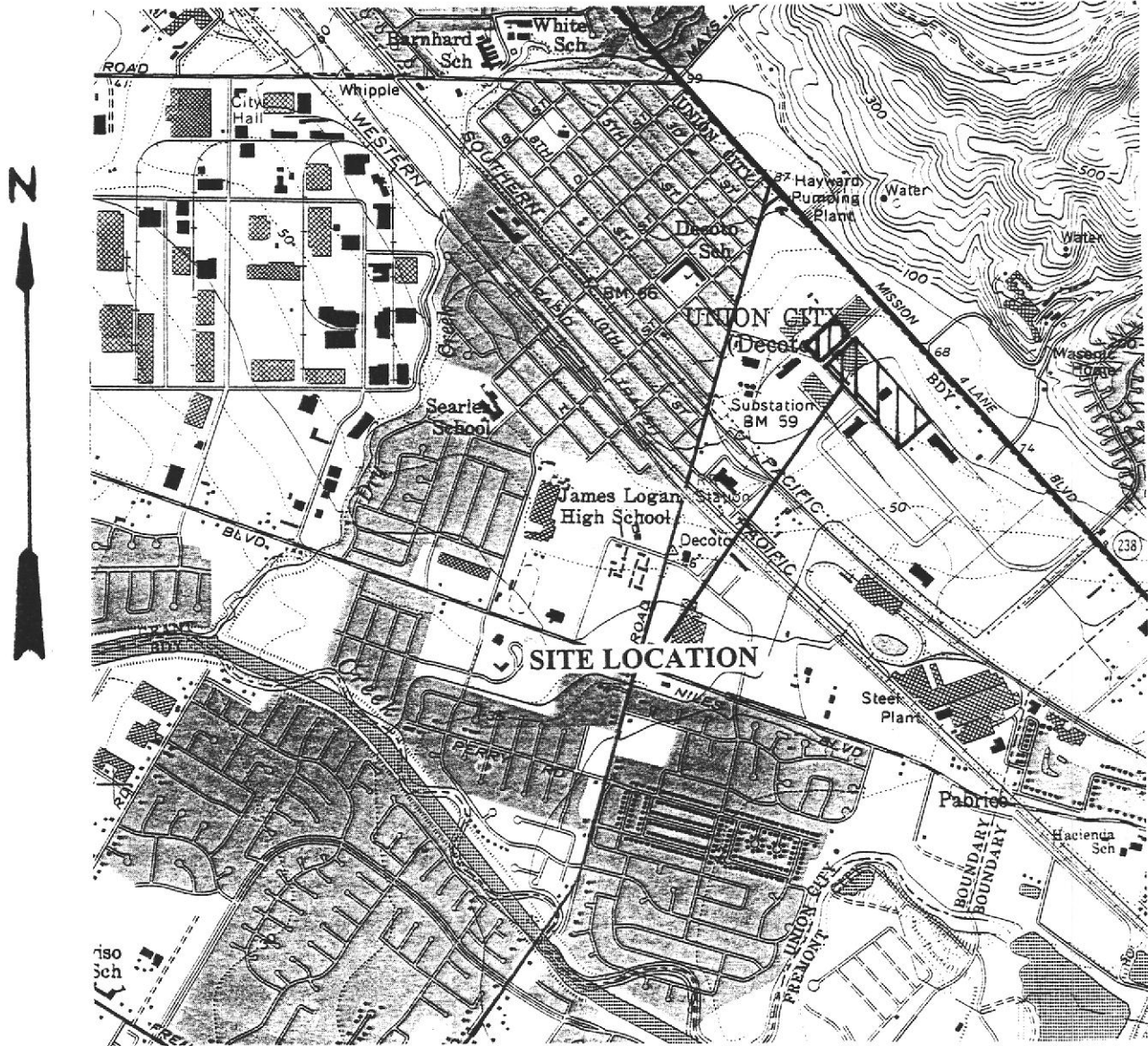
Should you have any questions relating to the contents of this report or require any additional information, please contact our office at your convenience.



Very truly yours,
TERRASEARCH, inc.

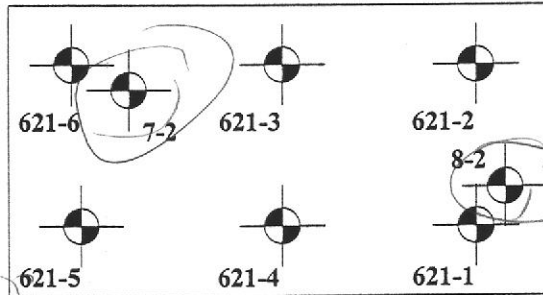
Robert D. Campbell
 Robert D. Campbell, C.E.G.
 Environmental Manager

Copies: 3 to Citation Homes Central



Scale: 1" = 2,000'

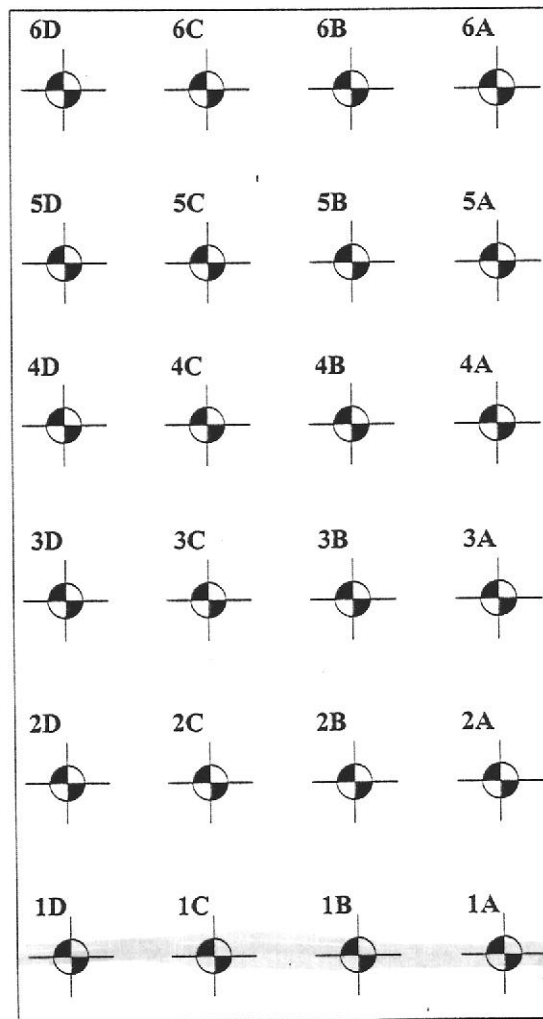
Source: U.S.G.S. Newark Quadrangle 7.5-Minute Topographic Map, 1980.



621 DAGGETT AVENUE

DAGGETT AVENUE

7th STREET



600 DAGGETT AVENUE

Approximate Scale 1" = 200'



SITE PLAN



GEOTECHNICAL ENGINEERS AND GEOLOGISTS

TERRASEARCH INC.

11840 DUBLIN BLVD., DUBLIN, CALIFORNIA 94568. (510) 833-9297

PHASE II ENVIRONMENTAL SITE ASSESSMENT

600 & 621 DAGGETT AVENUE
UNION CITY, CALIFORNIA

JOB NUMBER

E7744

DATE

06//99

APPROVED

FIGURE

2

APPENDIX A

**LABORATORY ANALYTICAL REPORT AND
CHAIN-OF-CUSTODY FORMS**



GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone: (209) 572-0900
Fax: (209) 572-0916

Lab Report # K166-14

Regulatory Yes No 1 of 2

Regulator: _____

Phone: (925) 833-9297

Fax: (925) 833-9548

To: Richard Campbell

Client: Terrasearch

CHAIN OF CUSTODY

Address: 11840 Dublin Boulevard

City Dublin Zip 94568

Project ID <u>E7744</u>				Container		No. Of Containers	ANALYSIS				Lab Use Only	
Sampled By		(Signature)		Type	Size						Lab ID #	Preservative
Date	Time	Sample type	Sample ID									
		Grab	Comp	Matrix								
<u>6/15/99</u>				<u>Soil</u>	<u>621-1</u>	<u>1</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-2</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-3</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-4</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-5</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-6</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-7</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>621-8</u>		<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>600-1A/1B/1C/1D</u>	<u>4</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>600-2A/2B/2C/2D</u>	<u>4</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>600-3A/3B/3C/3D</u>	<u>4</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>
					<u>600-4A/4B/4C/4D</u>	<u>4</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>

ANALYSIS
Pesticides
8010
As, Pb, Hg

Remarks Job # E7744 Use 7060 on Ar

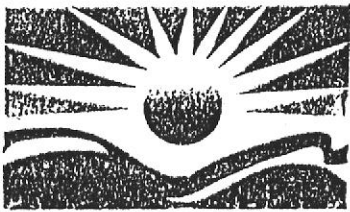
Richard Campbell 24-hr Turnaround

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
<u>Richard Campbell</u>	<u>6/15/99</u>	<u>3:15pm</u>	<u>Richard Campbell</u>	<u>6/15/99</u>	<u>3:15pm</u>
Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time

Preservative: ① -4°C ② -HCl ③ -NaOH ④ -Na₂S₂O₃ ⑤ -HNO₃ ⑥ -H₂S O₄ ⑦ -Other _____ ⑧ -Other _____

Site Time:	Driving Time:	Total Hours:	Site Arrival:	Total Hours
Start:	Start:			x2=
Finish:				

Mileage: _____ Approved By: _____



GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone: (209) 572-0900
Fax: (209) 572-0916

Lab Report # K166-14

Regulatory Yes No 2082

Regulator: _____

Phone: (925) 833-9297

Fax: (925) 833-9548

To: ~~Robert Campbell~~ Rob Campbell

CHAIN OF CUSTODY

Client: Terrasearch

Address: 11840 Dublin Boulevard

City: Dublin Zip: 94568

Project ID <u>E7744</u>				Container		No. Of Containers	ANALYSIS EMA 3060 AS Pb H7 Zn TEPH / POG	Lab Use Only			
Sampled By		(Print Name) <u>Rob Campbell</u>		Type	Size			Lab ID #	Preservative		
Date	Time	Sample type	Sample ID								
		Grab	Comp	Matrix							
<u>6/15/99</u>		X		Soil	<u>600-5A/5B/5C/5D</u>	<u>4</u>	X	X	<u>K22084, K22085, K22086, K22087</u>	<u>16</u>	
<u>6/15/99</u>		X		Soil	<u>600-6A/6B/6C/6D</u>	<u>4</u>	X	X	<u>K22088, K22089, K22090, K22091</u>	<u>16</u>	
<u>6/15/99</u>		X		Soil	<u>0</u>	<u>1</u>	X	X	<u>K22092</u>	<u>16</u>	
Remarks: <u>24-hr Turnaround Use 7060 on Arsenic</u>											
Relinquished by (Signature) <u>Rob Campbell</u>				Date <u>6/15/99</u>	Time <u>3:15pm</u>	Received by (Signature) <u>[Signature]</u>			Date <u>6/15/99</u>	Time <u>3:15pm</u>	
Relinquished by (Signature)				Date	Time	Received by (Signature)			Date	Time	
Preservative: ① -4°C ② -HCl ③ -NaOH ④ -Na ₂ S ₂ O ₃ ⑤ -HNO ₃ ⑥ -H ₂ SO ₄ ⑦ -Other _____ ⑧ -Other _____											
Site Time: Start: _____ Finish: _____ Total Hours: _____				Driving Time: Start: _____ Site Arrival: _____ x2= _____				Total Hours			

Mileage: _____

Approved By: _____

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # K166-14

8080

Date: 6/18/99

TerraSearch Inc.
11840 Dublin Blvd.
Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

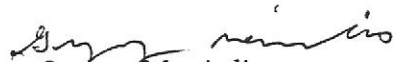
PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-1
Lab ID: K22060

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	72	
	10	Dieldrin	ND	
	10	Endrin	19	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

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8080

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Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99


PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-2
Lab ID: K22061

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	82	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	74	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


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Date Completed: 6/17/99

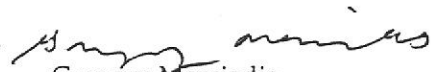
PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-3
Lab ID: K22062

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	70	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
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Certification # 1157


Donna Keller
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Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

PO#


Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-4

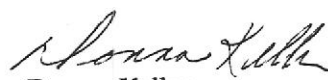
Lab ID: K22063

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	93	
	10	Dieldrin	ND	
	10	Endrin	14	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


Donna Keller
Laboratory Director

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Dublin CA 94568

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Date Completed: 6/17/99

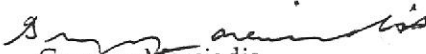
Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-5

Lab ID: K22064

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	110	
	10	Dieldrin	ND	
	10	Endrin	18	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

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Donna Keller
Laboratory Director

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8080

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11840 Dublin Blvd.
Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99


PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell


Sample ID: 621-6
Lab ID: K22065

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	97	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # K166-14

8080

Date: 6/18/99

TerraSearch Inc.
11840 Dublin Blvd.
Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

PO#


Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 600-2A, 600-2B, 600-2C, 600-2D

Lab ID: K22072,22073,22074,22075

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	55	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
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Project: E7744

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Date Started: 6/16/99
Date Completed: 6/17/99

PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 600-3A, 600-3B, 600-3C, 600-3D

Lab ID: K22076,22077,22078,22079

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	32	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


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Laboratory Director

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Project: E7744

PO#

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99


Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 600-4A, 600-4B, 600-4C, 600-4D


Lab ID: K22080,22081,22082,22083

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	10	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


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Project: E7744

PO#

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

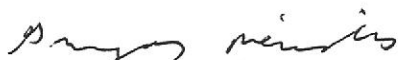
Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 600-5A, 600-5B, 600-5C, 600-5D


Lab ID: K22084,22085,22086,22087

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	21	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

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Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

PO#


Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 600-6A, 600-6B, 600-6C, 600-6D

Lab ID: K22088,22089,22090,22091

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	32	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # K166-14

8010

Date: 6/17/99

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Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/16/99

PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

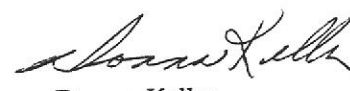
Sample ID: 7-2

Lab ID: K22066

Method	MDL	Analyte	Results	Units
8010	5.0	Dichlorodifluoromethane	ND	µg/Kg
	5.0	Chloromethane	ND	
	5.0	Vinyl Chloride	ND	
	5.0	Bromomethane	ND	
	5.0	Chloroethane	ND	
	5.0	Trichlorofluoromethane	ND	
	5.0	1,1-Dichloroethene	ND	
	5.0	Methylene Chloride	ND	
	5.0	trans-1,2-Dichloroethene	ND	
	5.0	1,1-Dichloroethane	ND	
	5.0	Chloroform	ND	
	5.0	1,1,1-Trichloroethane	ND	
	5.0	Carbon Tetrachloride	ND	
	5.0	1,2-Dichloroethane	ND	
	5.0	Trichloroethene	ND	
	5.0	1,2-Dichloropropane	ND	
	5.0	Bromodichloromethane	ND	
	5.0	Dibromomethane	ND	
	5.0	2-Chloroethylvinyl ether	ND	
	5.0	trans-1,3-Dichloropropene	ND	
	5.0	cis-1,3-Dichloropropene	ND	
	5.0	1,1,2-Trichloroethane	ND	
	5.0	Tetrachloroethene	ND	
	5.0	Dibromochloromethane	ND	
	5.0	1,2-Dibromoethane	ND	
	5.0	1,1,1,2-Tetrachloroethane	ND	
	5.0	Chlorobenzene	ND	
	5.0	Bromoform	ND	
	5.0	1,1,2,2-Tetrachloroethane	ND	
	5.0	1,2,3-Trichloropropane	ND	
	5.0	Bromobenzene	ND	
	5.0	2-Chlorotoluene	ND	
	5.0	1,3-Dichlorobenzene	ND	
	5.0	1,4-Dichlorobenzene	ND	
	5.0	1,2-Dichlorobenzene	ND	


Sylvia Krenn
Chemist

Certification # 1157


Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # K166-14

8010

Date: 6/17/99

TerraSearch Inc.
11840 Dublin Blvd.
Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/16/99

PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 8-2

Lab ID: K22067

Method	MDL	Analyte	Results	Units
8010	5.0	Dichlorodifluoromethane	ND	µg/Kg
	5.0	Chloromethane	ND	
	5.0	Vinyl Chloride	ND	
	5.0	Bromomethane	ND	
	5.0	Chloroethane	ND	
	5.0	Trichlorofluoromethane	ND	
	5.0	1,1-Dichloroethene	ND	
	5.0	Methylene Chloride	ND	
	5.0	trans-1,2-Dichloroethene	ND	
	5.0	1,1-Dichloroethane	ND	
	5.0	Chloroform	ND	
	5.0	1,1,1-Trichloroethane	ND	
	5.0	Carbon Tetrachloride	ND	
	5.0	1,2-Dichloroethane	ND	
	5.0	Trichloroethene	ND	
	5.0	1,2-Dichloropropane	ND	
	5.0	Bromodichloromethane	ND	
	5.0	Dibromomethane	ND	
	5.0	2-Chloroethylvinyl ether	ND	
	5.0	trans-1,3-Dichloropropene	ND	
	5.0	cis-1,3-Dichloropropene	ND	
	5.0	1,1,2-Trichloroethane	ND	
	5.0	Tetrachloroethene	ND	
	5.0	Dibromochloromethane	ND	
	5.0	1,2-Dibromoethane	ND	
	5.0	1,1,1,2-Tetrachloroethane	ND	
	5.0	Chlorobenzene	ND	
	5.0	Bromoform	ND	
	5.0	1,1,2,2-Tetrachloroethane	ND	
	5.0	1,2,3-Trichloropropane	ND	
	5.0	Bromobenzene	ND	
	5.0	2-Chlorotoluene	ND	
	5.0	1,3-Dichlorobenzene	ND	
	5.0	1,4-Dichlorobenzene	ND	
	5.0	1,2-Dichlorobenzene	ND	


Sylvia Krenn
Chemist

Certification # 1157


Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # K166-14

Date: 6/17/99

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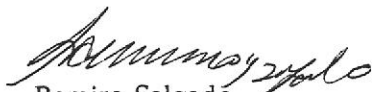
Project: E7744

PO#


Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID	Lab ID	MDL	Method	Analyte	Results	Units
621-1	K22060	0.5	7060	Arsenic	14.5	mg/Kg
		5.0	7420	Lead	15	mg/Kg
		0.05	7471	Mercury	0.06	mg/Kg
621-2	K22061	0.5	7060	Arsenic	16.5	mg/Kg
		5.0	7420	Lead	ND	mg/Kg
		0.05	7471	Mercury	0.11	mg/Kg
621-3	K22062	0.5	7060	Arsenic	12.5	mg/Kg
		5.0	7420	Lead	12	mg/Kg
		0.05	7471	Mercury	ND	mg/Kg
621-4	K22063	0.5	7060	Arsenic	14.3	mg/Kg
		5.0	7420	Lead	16	mg/Kg
		0.05	7471	Mercury	ND	mg/Kg
621-5	K22064	0.5	7060	Arsenic	14.5	mg/Kg
		5.0	7420	Lead	19	mg/Kg
		0.05	7471	Mercury	0.14	mg/Kg
621-6	K22065	0.5	7060	Arsenic	15.4	mg/Kg
		5.0	7420	Lead	9	mg/Kg
		0.05	7471	Mercury	ND	mg/Kg


Ramiro Salgado
Chemist

Certification # 1157


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Laboratory Director

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Report # K166-14

Date: 6/17/99

TerraSearch Inc.
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Dublin CA 94568

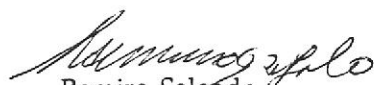
Project: E7744

PO#


Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID	Lab ID	MDL	Method	Analyte	Results	Units
600-1A, 600-1B, 600-1C, 600-1D	K22068,	0.5	7060	Arsenic	16.5	mg/Kg
	K22069,	5.0	7420	Lead	15	mg/Kg
	K22070,					
	K22071	0.05	7471	Mercury	0.05	mg/Kg
600-2A, 600-2B, 600-2C, 600-2D	K22072,	0.5	7060	Arsenic	8.3	mg/Kg
	K22073,	5.0	7420	Lead	10	mg/Kg
	K22074,					
	K22075	0.05	7471	Mercury	0.08	mg/Kg
600-3A, 600-3B, 600-3C, 600-3D	K22076,	0.5	7060	Arsenic	10.8	mg/Kg
	K22077,	5.0	7420	Lead	9	mg/Kg
	K22078,					
	K22079	0.05	7471	Mercury	ND	mg/Kg
600-4A, 600-4B, 600-4C, 600-4D	K22080,	0.5	7060	Arsenic	18.5	mg/Kg
	K22081,	5.0	7420	Lead	8	mg/Kg
	K22082,					
	K22083	0.05	7471	Mercury	0.12	mg/Kg
600-5A, 600-5B, 600-5C, 600-5D	K22084,	0.5	7060	Arsenic	13.8	mg/Kg
	K22085,	5.0	7420	Lead	10	mg/Kg
	K22086,					
	K22087	0.05	7471	Mercury	0.06	mg/Kg
600-6A, 600-6B, 600-6C, 600-6D	K22088,	0.5	7060	Arsenic	19.8	mg/Kg
	K22089,	5.0	7420	Lead	11	mg/Kg
	K22090,					
	K22091	0.05	7471	Mercury	0.05	mg/Kg


Ramiro Salgado
Chemist

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Report# K166-14


QC REPORT

TerraSearch Inc
11840 Dublin Blvd.
Dublin


CA 94568

Dates Analyzed 6/17/99

Analyte	Batch #	Method	MS % Recovery	MSD % Recovery	RPD	Blank
Arsenic	I01688	7060	97.8	105.3	7.4	ND
Lead	I01651	7420	100.0	100.0	0.0	ND
Mercury	I01656	7471	102.8	91.7	11.4	ND
Arsenic	I01690	7060	90.7	92.7	2.2	ND
Lead	I01652	7420	93.3	96.7	3.5	ND
Mercury	I01655	7471	105.8	104.7	1.1	ND


Ramiro Salgado
Chemist

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Donna Keller
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Report# K166-14

QC REPORT

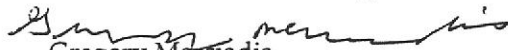
TerraSearch Inc
11840 Dublin Blvd.
Dublin

CA 94568

Dates Analyzed 6/16/99

Analyte	Batch #	Method	MS % Recovery	MSD % Recovery	RPD	Blank
Gamma-BHC	SV00220	8080	84.0	88.8	5.6	ND
Heptachlor			78.2	79.6	1.8	ND
Aldrin			73.6	75.8	2.8	ND

Comments:


Gregory Merciadis
Chemist

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CERTIFICATE OF ANALYSIS

Report # K166-14

8080

Date: 6/18/99

TerraSearch Inc.
11840 Dublin Blvd.
Dublin CA 94568

Project: E7744

Date Rec'd: 6/15/99
Date Started: 6/16/99
Date Completed: 6/17/99

PO#

Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-3
Lab ID: K22062

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	70	
	10	Dieldrin	ND	
	10	Endrin	ND	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


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PO#

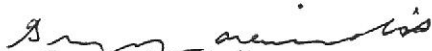
Date Sampled: 6/15/99
Time:
Sampler: Robert Campbell

Sample ID: 621-5

Lab ID: K22064

Method	MDL	Analyte	Results	Units
8080	10	Alpha-BHC	ND	µg/Kg
	10	Gamma-BHC	ND	
	10	Heptachlor	ND	
	10	Beta-BHC	ND	
	10	Delta-BHC	ND	
	10	Aldrin	ND	
	10	Heptachlor Epoxide	ND	
	50	Endosulfan 1	ND	
	10	DDE	110	
	10	Dieldrin	ND	
	10	Endrin	18	
	50	DDD	ND	
	50	Endosulfan 2	ND	
	50	DDT	ND	
	50	Endrin Aldehyde	ND	
	100	Endosulfan Sulfate	ND	
	100	Methoxychlor	ND	
	100	Toxaphene	ND	
	100	Chlordane	ND	
	100	Arochlor1016	ND	
	100	Arochlor1221	ND	
	100	Arochlor1232	ND	
	100	Arochlor1242	ND	
	100	Arochlor1248	ND	
	100	Arochlor1254	ND	
	100	Arochlor1260	ND	

Final Results, Confirmed


Gregory Merciadis
Chemist

Certification # 1157


Donna Keller
Laboratory Director