



JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.

555 East Walnut Street, Pasadena, California 91101/(213) 796-9141/(213) 681-4255

GL04773

Cable Address: Montgomery Pasadena California Telex: 67-5420

ATOMIC ABSORPTION

WATER ANALYSIS

Client: Ertec

Lab No. 801221

Job No. 437

Description and amount of sample: CK-WQ-6 well 14S/65E-23ac

Date sample taken: 11/13/80

Sampled by: Client

Date received: 11/20/80

Sample analyzed by: GLO

Date of analysis: 3/1/81

Report No.: _____

All results in mg/l

ELEMENT	Detection Limit	Concentration	ELEMENT	Detection Limit	Concentration
Ag	.005	ND	Fe	.03	.065
As	.001	.008	Hg	.0001	.0012
Ba	.02	.05	Mn	.01	.068
Cd	.003	ND	Pb	.002	ND
Cr	.02	ND	Se	.001	ND
Cu	.007	ND	Zn	.007	ND
Cn	.005	ND			

Submitted by G.L. Oll

Checked by A. Eaton

ND=Not Detected



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ATOMIC ABSORPTION
WATER ANALYSIS

Client: Ertec

Lab No. 801202

Job No. 437

Description and amount of sample: CK-WQ-5 well, 14S/65E-17aa

Date sample taken: 11/12/80

Sampled by: Client

Date received: 11/14/80

Sample analyzed by: GLO

Date of analysis: 3/1/81

Report No.: _____

All results in mg/l

ELEMENT	Detection Limit	Concentration	ELEMENT	Detection Limit	Concentration
Ag	.005	ND	Fe	.03	NA
As	.001	.015	Hg	.0001	ND
Ba	.02	.04	Mn	.01	NA
Cd	.003	ND	Pb	.002	ND
Cr	.02	ND	Se	.001	ND
Cu	.007	NA	Zn	.007	NA
Cn	.005	< ND			

Submitted by G L All

Checked by A Eaton

ND=Not Detected

NA=Not Analyzed



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ATOMIC ABSORPTION
WATER ANALYSIS

Client: Ertec

Lab No. 801204

Job No. 437

Description and amount of sample: CK-WQ-3 Well (C.A. Lewis), 145/65E-17a

Date sample taken: 11/12/80

Sampled by: Client

Date received: 11/14/80

Sample analyzed by: GLO

Date of analysis: 3/1/81

Report No.: _____

All results in mg/l

ELEMENT	Detection Limit	Concentration	ELEMENT	Detection Limit	Concentration
Ag	.005	.047	Fe	.03	NA
As	.001	.004	Hg	.0001	ND
Ba	.02	.23	Mn	.01	NA
Cd	.003	ND	Pb	.002	ND
Cr	.02	ND	Se	.001	ND
Cu	.007	NA	Zn	.007	NA
Cn	.005	ND			

Submitted by G.L. Oile

Checked by A. Eaton

ND=Not Detected

NA=Not Analyzed



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Cable Address: Montgomery Pasadena California Telex: 67-5420

ATOMIC ABSORPTION
WATER ANALYSIS

Client: Ertec

Lab No. 801201

Job No. 437

Description and amount of sample: CK-WQ-2 Well, 11S/62E-13bd

Date sample taken: 11/12/80

Sampled by: Client

Date received: 11/14/80

Sample analyzed by: GLO

Date of analysis: 3/1/81

Report No.: _____

All results in mg/l

ELEMENT	Detection Limit	Concentration	ELEMENT	Detection Limit	Concentration
Ag	.005	ND	Fe	.03	NA
As	.001	.005	Hg	.0001	ND
Ba	.02	.08	Mn	.01	NA
Cd	.003	ND	Pb	.002	ND
Cr	.02	ND	Se	.001	ND
Cu	.007	NA	Zn	.007	NA
Cn	.005	ND			

Submitted by L. L. Allen

Checked by A. Eaton

ND=Not Detected

NA=Not Analyzed

14 S / 65 E - 23ac
Well

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
ENVIRONMENTAL RESEARCH LABORATORY

555 E. Walnut St. Pasadena, Ca. 91101 213-796-9141

Client:ERTEC

Lab Number:801221.

Job Number: 437.0000

Description:CK-WQ-5

Sample Taken on:11/13/80 by CLIENT

Sample Received:11/20/80

Completed on: 1/13/81 By GLO

*
* STANDARD MINERALS *
*

* CATIONS * MG/L * MEQ/L * ANIONS * MG/L * MEQ/L *

* * * * *
* SODIUM * 315.0 * 13.70 * BICARBONATE * 359.7 * 5.90 *
* POTASSIUM * 30.5 * 0.78 * CARBONATE * 0.0 * 0.02 *
* CALCIUM * 135.0 * 6.79 * HYDROXIDE * 0.0 * 0.00 *
* MAGNESIUM * 68.8 * 5.66 * CHLORIDE * 120.0 * 3.33 *
* AMMONIA * 0.0 * 0.00 * SULFATE * 819.3 * 17.05 *
* * * * *
* NITRATE * 0.0 * 0.00 *

TOT CATIONS * 25.93 *TOTAL ANIONS * * 25.35 *

*
* SPECIAL ANALYSES *
*

* PARAMETERS * VALUE * UNITS *

* pH * 7.7 * Units *
* Specific Conduct * 2351.0 * MicroMhos-cm *
* Fluoride * 2.0 * MG/L *
* Silica * 22.8 * MG/L *
* Total Diss. Sol. * 1.8 * G/L *
* Tot. hardness * 522.9 * MG/L as CaCO3 *
* Alkalinity * 295.0 * MG/L as CaCO3 *

* LANG. INDEX * 0.67 * *

SUBMITTED BY: Grace Livingston

CHECKED BY: A. Eaton
A. EATON, PH.D

143/65E-17aa
Well

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
ENVIRONMENTAL RESEARCH LABORATORY

555 E. Walnut St. Pasadena, Ca. 91101 213-796-9141

Client:ERTEC

Lab Number:801202.

Job Number: 437.0000

Description:CK-WQ-5

Sample Taken on:11/12/80 by CLIENT

Sample Received:11/14/80

Completed on: 1/13/81 By GLO

*
*
* STANDARD MINERALS *
*

* CATIONS *	* MG/L *	* MEQ/L *	* ANIONS *	* MG/L *	* MEQ/L *
* SODIUM *	95.0 *	4.13 *	* BICARBONATE *	273.8 *	4.49 *
* POTASSIUM *	15.2 *	0.39 *	* CARBONATE *	0.3 *	0.01 *
* CALCIUM *	64.7 *	3.23 *	* HYDROXIDE *	0.0 *	0.00 *
* MAGNESIUM *	25.7 *	2.20 *	* CHLORIDE *	68.0 *	1.92 *
* AMMONIA *	0.0 *	0.00 *	* SULFATE *	172.0 *	3.58 *
* * *	* * *	* * *	* NITRATE *	0.5 *	0.03 *
TOT CATIONS	* 9.95 *	*TOTAL ANIONS *	* 10.03 *		

*
* SPECIAL ANALYSES *
*

* PARAMETERS *	* VALUE *	* UNITS *
* pH *	7.5 *	Units *
* Specific Conduct *	982.0 *	MicroMhos-cm *
* Fluoride *	1.6 *	MG/L *
* Silica *	23.7 *	MG/L *
* Total Diss. Sol. *	583.0 *	MG/L *
* Arsenic *	15.0 *	UG/L *
* Selenium *	< 3.0 *	UG/L *
* Mercury *	< 0.1 *	UG/L *
* Lead *	< 3.0 *	UG/L *
* Barium *	40.0 *	UG/L *
* Cadmium *	< 3.0 *	UG/L *
* Chromium, Tot. *	< 10.0 *	UG/L *
* Silver *	< 5.0 *	UG/L *
* Tot. hardness *	271.5 *	MG/L as CaCO3 *
* Alkalinity *	225.0 *	MG/L as CaCO3 *
* LANG. INDEX *	0.15 *	* *

SUBMITTED BY:

G. L. O'Neil
GLO

CHECKED BY:

A. Eaton
A. EATON, PH.D

Well (C.A. Lewis)
145/65E-17aa

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
ENVIRONMENTAL RESEARCH LABORATORY

555 E. Walnut St. Pasadena, Ca. 91101 213-795-9141

Client: ERTEC

Lab Number: 301204.

Job Number: 437.0000

Description: CK-WQ-3

Sample Taken on: 11/12/80 by CLIENT

Sample Received: 11/14/80

Completed on: 1/13/81 By GLO

*
*
* STANDARD MINERALS *
*

* CATIONS *	* MG/L *	* MEQ/L *	* ANIONS *	* MG/L *	* MEQ/L *
* SODIUM *	* 225.0 *	* 9.79 *	* BICARBONATE *	* 579.2 *	* 9.50 *
* POTASSIUM *	* 25.1 *	* 0.64 *	* CARBONATE *	* 0.6 *	* 0.02 *
* CALCIUM *	* 114.6 *	* 5.72 *	* HYDROXIDE *	* 0.0 *	* 0.00 *
* MAGNESIUM *	* 50.2 *	* 4.95 *	* CHLORIDE *	* 143.4 *	* 4.05 *
* AMMONIA *	* 0.0 *	* 0.00 *	* SULFATE *	* 394.2 *	* 8.21 *
* * *	* * *	* * *	* NITRATE *	* 0.0 *	* 0.00 *
TOT CATIONS	* 21.10	*TOTAL ANIONS *	* 21.77 *		

*
*
* SPECIAL ANALYSES *
*

* PARAMETERS *	* VALUE *	* UNITS *
* pH *	* 7.5 *	* Units *
* Specific Conduct *	* 1792.0 *	* MicroMhos-cm *
* Fluoride *	* 1.5 *	* MG/L *
* Silica *	* 37.8 *	* MG/L *
* Total Diss. Sol. *	* 1.2 *	* G/L *
* Arsenic *	* 4.0 *	* UG/L *
* Selenium *	* < 3.0 *	* UG/L *
* Mercury *	* < 0.1 *	* UG/L *
* Lead *	* < 3.0 *	* UC/L *
* Barium *	* 0.2 *	* MG/L *
* Cadmium *	* < 3.0 *	* UG/L *
* Chromium, Tot. *	* < 10.0 *	* UG/L *
* Silver *	* 47.0 *	* UG/L *
* Tot. hardness *	* 534.1 *	* MG/L as CaCO3 *
* Alkalinity *	* 476.0 *	* MG/L as CaCO3 *
* LANG. INDEX *	* 0.64 *	* *

SUBMITTED BY: [Signature]
GLO

CHECKED BY: [Signature]
A. EATON, PH.D

Well
11S/62E-13bd

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
ENVIRONMENTAL RESEARCH LABORATORY

555 E. Walnut St. Pasadena, Ca. 91101 213-796-9141

Client:ERTEC

Lab Number:881201.

Job Number: 437.0000

Description:CK-WQ-2

Sample Taken on:11/12/80 by CLIENT

Sample Received:11/14/80

Completed on: 1/13/81 By GLO

*
* STANDARD MINERALS *
*

* CATIONS *	* MG/L *	* MEQ/L *	* ANIONS *	* MG/L *	* MEQ/L *
* SODIUM *	32.1 *	1.40 *	* BICARBONATE *	257.7 *	4.23 *
* POTASSIUM *	2.9 *	0.07 *	* CARBONATE *	0.4 *	0.01 *
* CALCIUM *	37.4 *	1.87 *	* HYDROXIDE *	0.0 *	0.00 *
* MAGNESIUM *	27.0 *	2.22 *	* CHLORIDE *	15.4 *	0.45 *
* AMMONIA *	0.0 *	0.00 *	* SULFATE *	35.4 *	0.74 *
			* NITRATE *	1.2 *	0.09 *

TOT CATIONS * 5.56 *TOTAL ANIONS* * 5.52 *

*
* SPECIAL ANALYSES *
*

* PARAMETERS *	* VALUE *	* UNITS *
* pH *	7.7 *	Units *
* Specific Conduct *	553.0 *	MicroMhos-cm *
* Fluoride *	0.2 *	MG/L *
* Silica *	18.9 *	MG/L *
* Total Diss. Sol. *	299.0 *	MG/L *
* Arsenic *	5.0 *	UG/L *
* Selenium *	< 3.0 *	UG/L *
* Mercury *	< 0.1 *	UG/L *
* Lead *	< 3.0 *	UG/L *
* Barium *	80.0 *	UG/L *
* Cadmium *	< 3.0 *	UG/L *
* Chromium, Tot. *	< 10.0 *	UG/L *
* Silver *	< 5.0 *	UG/L *
* Tot. hardness *	294.6 *	MG/L as CaCO3 *
* Alkalinity *	212.0 *	MG/L as CaCO3 *

* LANG. INDEX * 0.13 *

SUBMITTED BY: G. L. Oller
GLO

CHECKED BY: A. Eaton
A. EATON, PH.D

CE-DT-4
13S/63E-23
Ertec carbonate
boring

Inorganic Water Chemistry.

<u>Time of Collection</u>	2000	1145
<u>Date of Collection</u>	12/20/80	12/23/80

<u>Constituent</u>	<u>Concentration, in mg/l</u>	
Calcium	51	51
Magnesium	20	20
Sodium	84	83
Potassium	10.7	10.7
Bicarbonate Alkalinity, as HCO ₃	306.4	306.4
Chloride	37.1	37.1
Sulfate	101	102
Nitrate, as N	0.20	0.21
Fluoride	2.3	2.1
Silicon Dioxide	34	34
Total Dissolved Solids, (Calculated)	491	491
Arsenic	0.017	0.010
Copper	< 0.01	< 0.01
Iron	0.02	0.04
Manganese	0.07	0.04
Mercury	< 0.0005	< 0.0005
Zinc	0.01	< 0.01

Analyst: Cranmer Engineering, Inc., Grass Valley, California.