

BW - 19

MONITORING REPORTS

DATE:

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

VISION TECHNOLOGY
ATTN: KEVIN PARISH
P.O. BOX 5897
HOBBS, NM 88241
FAX: 505-391-0445

Sample Type: Water
Sample Condition: Intact/ Iced/ HNO3/ 3.5 deg C
Project Name: Carlsbad Brine
Project #: Key 1
Project Location: Carlsbad

Sampling Date: 01/17/02
Receiving Date: 01/18/02
Analysis Date: 01/24/02

ELT#	FIELD CODE	Ca mg/L	K mg/L	Mg mg/L	Na mg/L
0202431-01	Brine Water	880	44.6	47.3	108000
0202431-02	Fresh Water	64.7	1.58	28.8	14.2

REPORT LIMIT	0.01	0.05	0.001	0.01
QUALITY CONTROL	2.06	1.75	2.18	1.86
TRUE VALUE	2.00	2.00	2.00	2.00
% INSTRUMENT ACCURACY	103	88	109	93
SPIKED AMOUNT	1.00	1.00	1.00	1.00
ORIGINAL SAMPLE	<0.01	<0.05	<0.001	<0.01
SPIKE	1.02	0.886	1.11	0.918
SPIKE DUP	1.02	0.888	1.10	0.921
% EXTRACTION ACCURACY	102	89	110	92
BLANK	<0.01	<0.05	<0.001	<0.01
RPD	0.78	0.24	0.63	0.30

METHODS: SW846-6010B


Caley D. Keene
Raland K. Tuttle

01/30/02
Date

Yale E Key, Inc.
Carlsbad(405) City of Carlsbad #1
BW-019

2001	Fresh Water Metered Into Well In Barrels	Brine Produced In Barrels
January	32952	32755
February	39762	37840
March	36119	28090
April	no meter	15450
May	no meter	26500
June	no meter	29750
July	no meter	27439
August	no meter	28910
September	28990	25190
October	34913	39375
November	40977	43635
December	21755	23100
Totals for Year		

Yale E Key, Inc.
Carlsbad(405) City of Carlsbad #1
BW-019

2002	Fresh Water Metered Into Well In Barrels	Brine Produced In Barrels
January	22016	18190
February	19109	17885
March	8823	6000
April	15030	13135
May	10064	10635
June	6669	4800
July	10443	9940
August	16060	12330
September	5885	7430
October	4472	4620
November	6264	7080
December	7509	6760
Totals for Year	132344	118805



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
KEY ENERGY SERVICES
ATTN: ROYCE CROWELL
P.O. BOX 2040
HOBBS, NM 88241
FAX TO: (505) 393-3848

Receiving Date: 12/19/02
Reporting Date: 12/26/02
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: CARLSBAD #1

Sampling Date: 12/19/02
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		12/23/02	12/23/02	12/23/02	12/23/02	12/20/02	12/23/02
H7336-1	FRESH	37	53	38	1.40	525	215
H7336-2	BRINE	116672	1142	94	12.9	287093	75
Quality Control		NR	42	41	4.67	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference		NR	0.8	1.4	1.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/23/02	12/23/02	12/23/02	12/23/02	12/20/02	12/26/02
H7336-1	FRESH	40	95.1	0	262	7.39	313
H7336-2	BRINE	178945	4592	0	92	6.73	276544
Quality Control		1000	50.20	NR	1068	6.73	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		100.0	100	NR	107	96.1	NR
Relative Percent Difference		3.0	0.7	NR	7.7	0	0.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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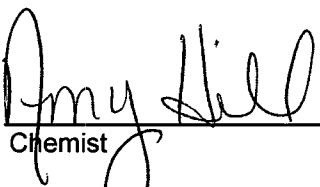
ANALYTICAL RESULTS FOR
KEY ENERGY SERVICES
ATTN: ROYCE CROWELL
P.O. BOX 2040
HOBBS, NM 88241
FAX TO: (505) 393-3848

Receiving Date: 12/19/02
Reporting Date: 12/24/02
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: CARLSBAD #1

Sampling Date: 12/19/02
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	F ⁻ (mg/L)	NO ₃ (mg/L)
ANALYSIS DATE:		12/23/02	12/20/02
H7336-1	FRESH	<0.1	0.85
H7336-2	BRINE	0.40	7.89
Quality Control		0.97	2.83
True Value QC		1.00	3.00
% Recovery		97.5	94.2
Relative Percent Difference		2.0	1.0

METHODS: EPA 600/4-79-020	SM4500-F'D	353.3
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Chemist

12-24-02
Date

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Key Energy Services, Inc.

CARLSBAD #1(BW-019)

Injection/Production

2003

Month	Water In.	Water Out
1/1/2003	15288	14400
2/1/2003	19114	13490
3/1/2003	23337	22881
4/1/2003	38	690
5/1/2003	10039	8300
6/1/2003	11005	10240
7/1/2003	8959	8450
8/1/2003	18892	17103
9/1/2003	13282	14685
10/1/2003	12379	9445
11/1/2003	14085	8732
12/1/2003	16084	16170
TOTAL	162502	144586

ROWLAND TRUCKING CO., INC.

OIL CONSERVATION DIV.
CARLSBAD - TRUCKERS BRINE WELL (BW-19)
WATER SALES/PURCHASE COMPARISON WORK SHEET
01 MAR -2 PM 1:53

	PURCHASED GALLONS = BARRELS		BARRELS SOLD	VARIANCE
2000 JANUARY	974,000	23,190	18635	(4,555)
FEBRUARY	1,127,000	26,833	26947	114
MARCH	700,000	16,667	12926	(3,741)
APRIL	1,186,000	28,238	15450	(12,788)
MAY	1,219,000	29,024	22720	(6,304)
JUNE	1,187,000	28,262	23745	(4,517)
JULY	1,188,000	28,286	21800	(6,486)
AUGUST	1,168,000	27,810	25825	(1,985)
SEPTEMBER	874,000	20,810	16500	(4,310)
OCTOBER	1,295,000	30,833	25600	(5,233)
NOVEMBER	942,000	22,429	17565	(4,864)
DECEMBER	1,359,000	32,357	20090	(12,267)
	13,219,000	314,738	247,803	(66,935)

Please contact Renee Gaillardet at 915-570-5721 with questions.

ROWLAND TRUCKING CO., INC.

HOBBS - TRUCKERS II BRINE WELL (BW-0018) DIV.
WATER SALES/PURCHASE COMPARISON WORK SHEET

01 MAR -2 PM 1:53

	FRESH WATER PURCHASED GALLONS = BARRELS	BRINE & FRESH BARRELS SOLD	VARIANCE
2000 JANUARY	742800	17,686	6350 (11,336)
FEBRUARY	766000	18,238	5575 (12,663)
MARCH	755000	17,976	7455 (10,521)
APRIL	9457000	225,167	5807 (219,360)
MAY	8577000	204,214	6030 (198,184)
JUNE	6220000	148,095	6855 (141,240)
JULY	9791000	233,119	10085 (223,034)
AUGUST	9156000	218,000	8835 (209,165)
SEPTEMBER	10413000	247,929	10840 (237,089)
OCTOBER	8037000	191,357	13250 (178,107)
NOVEMBER	9150000	217,857	12210 (205,647)
DECEMBER	7154000	170,333	5705 (164,628)
	80,218,800	1,909,971	98,997 (1,810,974)

Please call Renee Gaillardet at 915-570-5721 with questions.

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL (BW-19)
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS	= BARRELS	BARRELS SOLD	VARIANCE
2000 JANUARY	974,000	23,190	18635	(4,555)
FEBRUARY	1,127,000	26,833	26947	114
MARCH	700,000	16,667	12926	(3,741)
APRIL	1,186,000	28,238	15450	(12,788)
MAY	1,219,000	29,024	22720	(6,304)
JUNE	1,187,000	28,262	23745	(4,517)
JULY	1,188,000	28,286	21800	(6,486)
AUGUST	1,168,000	27,810	25825	(1,985)
SEPTEMBER	874,000	20,810	16500	(4,310)
OCTOBER	-	0	0	0
NOVEMBER	-	0	0	0
DECEMBER	-	0	0	0
	9,623,000	229,119	184,548	(44,571)

Please contact Renee Gaillardet at 915-570-5721 with questions.

ROWLAND TRUCKING CO., INC.

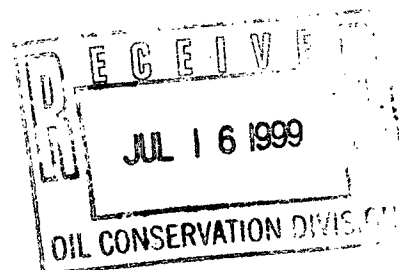
CARLSBAD - TRUCKERS BRINE WELL (BW-19)
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED		BARRELS	
	GALLONS	= BARRELS	SOLD	VARIANCE
2000 JANUARY	974,000	23,190	18635	(4,555)
FEBRUARY	1,127,000	26,833	26947	114
MARCH	700,000	16,667	12926	(3,741)
APRIL	1,186,000	28,238	15450	(12,788)
MAY	1,219,000	29,024	11474	(17,550)
JUNE	1,187,000	28,262	23745	(4,517)
JULY	-	0	0	0
AUGUST	-	0	0	0
SEPTEMBER	-	0	0	0
OCTOBER	-	0	0	0
NOVEMBER	-	0	0	0
DECEMBER	-	0	0	0
	6,393,000	152,214	109,177	(43,037)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL (BW-19)
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS = BARRELS		BARRELS SOLD	VARIANCE
2000 JANUARY	974000	23,190	18635	(4,555)
FEBRUARY	1127000	26,833	26947	114
MARCH	700000	16,667	12926	(3,741)
APRIL	0	0	0	0
MAY	0	0	0	0
JUNE	0	0	0	0
JULY	0	0	0	0
AUGUST	0	0	0	0
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
	2,801,000	66,690	58,508	(8,182)



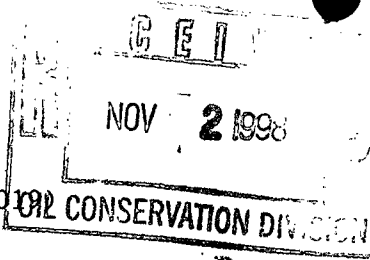
ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL (BW-19)
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS = BARRELS		BARRELS SOLD	VARIANCE
JANUARY	68000	1,619	685	(934)
FEBRUARY	177000	4,214	2155	(2,059)
MARCH	230000	5,476	3170	(2,306)
APRIL	195000	4,643	4255	(388)
MAY	88000	2,095	7565	5,470
JUNE	509000	12,119	10875	(1,244)
JULY	0	0	0	0
AUGUST	0	0	0	0
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
	0			
	1,267,000	30,167	28,705	(1,462)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE
WATER SALES/PURCHASE COMPARISON WORK SHEET



	PURCHASED GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1998 JANUARY	419000		9,976	7960	(2,016)
FEBRUARY	595000		14,167	12488	(1,679)
MARCH	606000		14,429	2340	(12,089)
APRIL	178200		4,243	2345	(1,898)
MAY	487000		11,595	7910	(3,685)
JUNE	647000		15,405	5870	(9,535)
JULY	475000		11,310	2870	(8,440)
AUGUST	534000		12,714	3115	(9,599)
SEPTEMBER	671000		15,976	2712	(13,264)
OCTOBER	0		0	0	0
NOVEMBER	0		0	0	0
DECEMBER	0		0	0	0
	4,612,200		109,814	47,610	(62,204)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1998 JANUARY	419000		9,976	7960	(2,016)
FEBRUARY	595000		14,167	12488	(1,679)
MARCH	606000		14,429	2340	(12,089)
APRIL	178200		4,243	2345	(1,898)
MAY	487000		11,595	7910	(3,685)
JUNE	647000		15,405	5870	(9,535)
JULY	0		0	0	0
AUGUST	0		0	0	0
SEPTEMBER	0		0	0	0
OCTOBER	0		0	0	0
NOVEMBER	0		0	0	0
DECEMBER	0		0	0	0
	2,932,200		69,814	38,913	(30,901)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED. GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1997 JANUARY	1489000		35,452	32520	(2,932)
FEBRUARY	832000		19,810	16445	(3,365)
MARCH	997000		23,738	16445	(7,293)
APRIL	1219000		29,024	25530	(3,494)
MAY	1229000		29,262	17725	(11,537)
JUNE	378000		9,000	6081	(2,919)
JULY	1445000		34,405	28105	(6,300)
AUGUST	1283000		30,548	13155	(17,393)
SEPTEMBER	452000		10,762	15250	4,488
OCTOBER	467000		11,119	11040	(79)
NOVEMBER	533000		12,690	11230	(1,460)
DECEMBER	1197000		28,500	22870	(5,630)
	----- 11,521,000		274,310	216,396	(57,914)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1996 JANUARY	498000		11,857	8101	(3,756)
FEBRUARY	701000		16,690	13720	(2,970)
MARCH	649000		15,452	14420	(1,032)
APRIL	683000		16,262	14085	(2,177)
MAY	1077000		25,643	26045	402
JUNE	829000		19,738	17610	(2,128)
JULY	860000		20,476	15798	(4,678)
AUGUST	709000		16,881	22690	5,809
SEPTEMBER	876000		20,857	16430	(4,427)
OCTOBER	1498000		35,667	30225	(5,442)
NOVEMBER	1092000		26,000	29480	3,480
DECEMBER	1187000		28,262	25615	(2,647)
	----- 10,659,000		253,786	234,219	(19,567)

ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1995 JANUARY	711000		16,929	11640	(5,289)
FEBRUARY	670000		15,952	13375	(2,577)
MARCH	921000		21,929	16882	(5,047)
APRIL	409000		9,738	7735	(2,003)
MAY	866000		20,619	17910	(2,709)
JUNE	906000		21,571	19065	(2,506)
JULY	452000		10,762	9937	(825)
AUGUST	583000		13,881	11405	(2,476)
SEPTEMBER	694000		16,524	29850	13,326
OCTOBER	605000		14,405	11525	(2,880)
NOVEMBER	589000		14,024	12675	(1,349)
DECEMBER	563000		13,405	13705	300
	7,969,000		189,738	175,704	(14,034)

2A.
ROWLAND TRUCKING CO., INC.

CARLSBAD - TRUCKERS BRINE WELL
WATER SALES/PURCHASE COMPARISON WORK SHEET

	PURCHASED GALLONS	=	BARRELS	BARRELS SOLD	VARIANCE
1994 JANUARY	259000		6,167	4915	(1,252)
FEBRUARY	358000		8,524	8365	(159)
MARCH	290000		6,905	3446	(3,459)
APRIL	366000		8,714	9310	596
MAY	608000		14,476	12125	(2,351)
JUNE	862000		20,524	18220	(2,304)
JULY	381000		9,071	7215	(1,856)
AUGUST	363000		8,643	7854	(789)
SEPTEMBER	296000		7,048	5085	(1,963)
OCTOBER	227000		5,405	3335	(2,070)
NOVEMBER	347000		8,262	6444	(1,818)
DECEMBER	383000		9,119	4395	(4,724)
	4,740,000		112,857	90,709	(22,148)

RECEIVED

FEB 02 1992

1/25/92

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1991
FOURTH QUARTER

OIL CONSERVATION DIV.
SANTA FE

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
DECEMBER	32000	762	2625
NOVEMBER	323000	7690	7910
OCTOBER	204000	4857	3045

=====

559000

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13310

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13580



Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, Fax 505/393-6754

WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NM

DATE: 1/3/92
SAMPLE DATE: 1/2/92
DATE ANALYZED: 1/3/92

SAMPLE IDENTIFICATION :		PIONEER BRINE STATION	TRUCKER'S BRINE STATION	TRUCKER'S II
pH		6.26	5.93	6.26
PHENO ALKALINITY	(CaCO3)	NIL	NIL	NIL
TOTAL ALKALINITY	(CaCO3)	68	108	128
BICARBONATE	(HCO3)	83.0	131.8	156.2
CARBONATE	(CO3)	NIL	NIL	NIL
HYDROXIDE	(OH)	NIL	NIL	NIL
TOTAL HARDNESS	(CaCO3)	5100	4300	5600
CALCIUM	(Ca)	1840.0	1560.0	1440.0
CALCIUM	(CaCO3)	4600	3900	3600
MAGNESIUM	(Mg)	120.0	96.0	480.0
MAGNESIUM	(CaCO3)	500	400	2000
CHLORIDE	(Cl)	225500	170000	169000
SULFATE	(SO4)	5100	5000	6625
TOTAL PHOSPHATE	(PO4)	***	***	***
ORTHO PHOSPHATE	(PO4)	***	***	***
POLY PHOSPHATE	(PO4)	***	***	***
SILICA	(SiO2)	25.0	25.0	37.0
SPECIFIC CONDUCTANCE	(mmhos)	***	***	***
IRON	(Fe)	0.70	1.20	0.10
COPPER	(Cu)	0.70	0.40	0.30
CALCULATED :				
TOTAL DISSOLVED SOLIDS		378896	287421	287889
SODIUM	(Na)	146228	110608	110150

ANALYZED BY: Steve P. Moreno
(HOBBS LAB)

APPROVED BY: [Signature]

*** INDICATES THAT THIS TEST WAS NOT RUN

UNICHEM INTERNATIONAL INC.



Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, Fax 505/393-6754

W A T E R A N A L Y S I S

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NM

DATE: 1/3/92
SAMPLE DATE: 1/2/92
DATE ANALYZED: 1/3/92

SAMPLE IDENTIFICATION :

PIONEER
BRINE
STATION

TRUCKER'S
BRINE
STATION

TRUCKER'S
II

RESISTIVITY

.04 ohm @ 72 F .04 ohm @ 72 F .04 ohm @ 72 F

*** INDICATES THAT THIS TEST WAS NOT RUN

UNICHEM INTERNATIONAL INC.

ROWLAND TRUCKING COMPANY

A DIVISION OF
UNICHEM INTERNATIONAL, INC.

PHONE
[505] 393-7751

P.O. BOX 1499
HOBBS, NEW MEXICO 88241

FAX
[505] 393-7751, Ext. 283

'91 OCT 24 AM 9 41

10/22/91

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1991
THIRD QUARTER

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
AUGUST	275000	6548	6665
JULY	599000	14262	4675
SEPTEMBER	297000	7071	3045

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1171000

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27881

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14385



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WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NM

DATE: 10/11/91
SAMPLE DATE: 10/9/91
DATE ANALYZED: 10/10/91

SAMPLE IDENTIFICATION :	PIONEER BRINE WELL	TRUCKER'S #2	CARLSBAD BRINE WELL
-------------------------	--------------------------	-----------------	---------------------------

pH		7.19	6.99	6.65
PHEND ALKALINITY	(CaCO3)	NIL	NIL	NIL
TOTAL ALKALINITY	(CaCO3)	76	156	156
BICARBONATE	(HCO3)	92.7	190.3	190.3
CARBONATE	(CO3)	NIL	NIL	NIL
HYDROXIDE	(OH)	NIL	NIL	NIL
TOTAL HARDNESS	(CaCO3)	5232	5184	4120
CALCIUM	(Ca)	1417.6	840.0	1556.8
CALCIUM	(CaCO3)	3544	2100	3692
MAGNESIUM	(Mg)	405.1	740.2	54.7
MAGNESIUM	(CaCO3)	1688	3084	228
CHLORIDE	(Cl)	184000	150400	186400
SULFATE	(SO4)	4900	5190	3525
TOTAL PHOSPHATE	(PO4)	***	***	***
ORTHO PHOSPHATE	(PO4)	***	***	***
POLY PHOSPHATE	(PO4)	***	***	***
SILICA	(SiO2)	79.0	89.0	82.0
SPECIFIC CONDUCTANCE	(mmhos)	136700	115000	119600
IRON	(Fe)	0.20	0.30	0.20
COPPER	(Cu)	1.30	0.30	0.60
CALCULATED :				
TOTAL DISSOLVED SOLIDS		210082	255066	312441
SODIUM	(Na)	119187	97616	120632

ANALYZED BY: *Steve J. Moore*
(HOBBS LAB)

APPROVED BY: *[Signature]*

UNICHEM INTERNATIONAL INC.

*** INDICATES THAT THIS TEST WAS NOT RUN

7/15/91

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1991
SECOND QUARTER 1991

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
APRIL	1143000	27214	25135
JUNE	512000	12190	14099
MAY	386000	9190	11040

=====
2041000

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48595

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50274



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WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NM

DATE: 7/11/91
SAMPLE DATE: 7/11/91
DATE ANALYZED: 7/11/91

SAMPLE IDENTIFICATION :		TRUCKER'S BRINE CARLSBAD	TRUCKER'S #2 HOBBS	PIONEER BRINE STATION EUNICE
		-----	-----	-----
pH		6.91	7.06	7.16
PHENO ALKALINITY	(CaCO3)	NIL	NIL	NIL
TOTAL ALKALINITY	(CaCO3)	108	204	80
BICARBONATE	(HCO3)	131.8	248.9	97.6
CARBONATE	(CO3)	NIL	NIL	NIL
HYDROXIDE	(OH)	NIL	NIL	NIL
TOTAL HARDNESS	(CaCO3)	3200	2000	4300
CALCIUM	(Ca)	1120.0	400.0	1348.8
CALCIUM	(CaCO3)	2800	1000	3372
MAGNESIUM	(Mg)	96.0	240.0	222.7
MAGNESIUM	(CaCO3)	400	1000	928
CHLORIDE	(Cl)	134000	128000	124000
SULFATE	(SO4)	4080	4240	5780
TOTAL PHOSPHATE	(PO4)	***	***	***
ORTHO PHOSPHATE	(PO4)	***	***	***
POLY PHOSPHATE	(PO4)	***	***	***
SILICA	(SiO2)	70.0	115.0	77.0
SPECIFIC CONDUCTANCE	(mmhos)	144200	136100	141100
IRON	(Fe)	0.50	0.20	0.10
COPPER	(Cu)	0.50	0.40	0.50
CALCULATED :				
TOTAL DISSOLVED SOLIDS		226847	217379	212693
SODIUM	(Na)	87350	84135	81166

ANALYZED BY: W. J. Moreno
(HOBBS LAB)

APPROVED BY: [Signature]

*** INDICATES THAT THIS TEST WAS NOT RUN

UNICHEM INTERNATIONAL INC.

5/06/91

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1991

Page 1

FIRST QUARTER

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
JANUARY	422000	10048	11316
FEBRUARY	150000	3571	4385
MARCH	399000	9500	10125

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971000

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23119

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25826



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WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NM

DATE: 4/30/91
SAMPLE DATE: 4/26/91
DATE ANALYZED: 4/29/91

SAMPLE IDENTIFICATION :

PIONEER
BRINE
EUNICE

TRUCKER'S
DRIVE BRINE
HOBBS

ROWLAND
TRUCKING
CARLSBAD

pH		7.20	7.20	6.23
PHENO ALKALINITY	(CaCO ₃)	NIL	NIL	NIL
TOTAL ALKALINITY	(CaCO ₃)	84	124	100
BICARBONATE	(HCO ₃)	102.5	151.3	122.0
CARBONATE	(CO ₃)	NIL	NIL	NIL
HYDROXIDE	(OH)	NIL	NIL	NIL
TOTAL HARDNESS	(CaCO ₃)	6300	5600	6500
CALCIUM	(Ca)	1440.0	1120.0	1680.0
CALCIUM	(CaCO ₃)	3600	2800	4200
MAGNESIUM	(Mg)	648.0	672.0	552.0
MAGNESIUM	(CaCO ₃)	2700	2800	2300
CHLORIDE	(Cl)	43200	38800	60400
SULFATE	(SO ₄)	5520	7050	3425
TOTAL PHOSPHATE	(PO ₄)	***	***	***
ORTHO PHOSPHATE	(PO ₄)	***	***	***
POLY PHOSPHATE	(PO ₄)	***	***	***
SILICA	(SiO ₂)	4.7	28.2	2.3
SPECIFIC CONDUCTANCE	(mmhos)	63800	32600	53500
IRON	(Fe)	0.10	NIL	0.20
COPPER	(Cu)	2.50	1.10	0.80

CALCULATED :

TOTAL DISSOLVED SOLIDS		78690	73819	104011
SODIUM	(Na)	27774	25997	37830

ANALYZED BY: Steve J. Moreno
(HOBBS LAB)

APPROVED BY: [Signature]

*** INDICATES THAT THIS TEST WAS NOT RUN

UNICHEM INTERNATIONAL INC.

1/30/91

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1990

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
JANUARY	498000	11857	8090
FEBRUARY	595000	14167	16450
MARCH	849000	20214	7310
APRIL	255000	6071	6025
MAY	419000	9976	9456
JUNE	473000	11262	12263
JULY	673000	16024	12399
AUGUST	672000	16000	13150
SEPTEMBER	337000	8024	7895
OCTOBER	360000	8571	9604
NOVEMBER	511000	12167	11205
DECEMBER	311000	7405	7225

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5953000=====
141738=====
121072



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1990
VOL 5
S/L CONSULTING DIVISION
ALABAMA

91 FEB 4 AM 9 07

WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND TRUCKING
FACILITY: HOBBS
LOCATION: HOBBS, NEW MEXICO

DATE: 1/30/91
SAMPLE DATE: 1/28/91
DATE ANALYZED: 1/29/91

SAMPLE IDENTIFICATION :	PIONEER BRINE	TRUCKERS II	TRUCKERS BRINE CARLSBAD
-------------------------	------------------	----------------	-------------------------------

pH	5.89	7.60	7.02
PHEND ALKALINITY (CaCO3)	NIL	NIL	NIL
TOTAL ALKALINITY (CaCO3)	60	120	140
BICARBONATE (HCO3)	73.2	146.4	170.8
CARBONATE (CO3)	NIL	NIL	NIL
HYDROXIDE (OH)	NIL	NIL	NIL
TOTAL HARDNESS (CaCO3)	4000	3600	3800
CALCIUM (Ca)	1040.0	800.0	1000.0
CALCIUM (CaCO3)	2600	2000	2500
MAGNESIUM (Mg)	336.0	384.0	312.0
MAGNESIUM (CaCO3)	1400	1600	1300
CHLORIDE (Cl)	172000	15600	154000
SULFATE (SO4)	1410	1925	1225
TOTAL PHOSPHATE (PO4)	***	***	***
ORTHO PHOSPHATE (PO4)	***	***	***
POLY PHOSPHATE (PO4)	***	***	***
SILICA (SiO2)	2.3	2.3	2.3
SPECIFIC CONDUCTANCE (mmhos)	90300	74600	74500
IRON (Fe)	1.65	0.11	0.11
COPPER (Cu)	0.80	0.20	4.90

CALCULATED :			
TOTAL DISSOLVED SOLIDS	285161	28286	255388
SODIUM (Na)	110300	9429	98678

ANALYZED BY:

(HOBBS LAB)

APPROVED BY:

*** INDICATES THAT THIS TEST WAS NOT RUN
UNICHEM INTERNATIONAL INC.

10/16/89

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1989

Page 1

MONTH	THIRD QUARTER		BRINE WATER SALES
	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	
JULY	466000	11095	10023
AUGUST	244000	5810	4550
SEPTEMBER	587000	13976	14775

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1297000

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30881

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29348

OIL CONSERVATION DIVISION
RECEIVED
89 OCT 19 AM 9 20

R E C E I V E **D**
OCT 17 1989
GROUND WATER BUREAU



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W A T E R A N A L Y S I S

ALL RESULTS EXPRESSED IN MG/L UNLESS OTHERWISE NOTED

CLIENT NAME: ROWLAND
FACILITY: UNICHEM
LOCATION:

DATE: 10/10/89
SAMPLE DATE: 10/02/89
DATE ANALYZED: 10/06/89

SAMPLE IDENTIFICATION : TRUCKERS
BRINE

pH		6.03
PHENO ALKALINITY	(CaCO3)	NIL
TOTAL ALKALINITY	(CaCO3)	120
BICARBONATE	(HCO3)	146.4
CARBONATE	(CO3)	NIL
HYDROXIDE	(OH)	NIL
TOTAL HARDNESS	(CaCO3)	4200
CALCIUM	(Ca)	1488.0
CALCIUM	(CaCO3)	3720
MAGNESIUM	(Mg)	115.2
MAGNESIUM	(CaCO3)	480
CHLORIDE	(Cl)	194400
SULFATE	(SO4)	1200
TOTAL PHOSPHATE	(PO4)	***
ORTHO PHOSPHATE	(PO4)	***
POLY PHOSPHATE	(PO4)	***
SILICA	(SiO2)	23.0
SPECIFIC CONDUCTANCE	(mmhos)	100000
IRON	(Fe)	2.10
COPPER	(Cu)	0.44
CALCULATED :		
TOTAL DISSOLVED SOLIDS		322020
SODIUM	(Na)	124647

ANALYZED BY: Mitchell Jovic
(HOBBS LAB)

APPROVED BY: [Signature]

*** INDICATES THAT THIS TEST WAS NOT RUN

7/14/89

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1989
SECOND QUARTER

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
APRIL	206000	4905	19155
MAY	80500	1917	10000
JUNE	121300	2888	11707

R - 34154 D
JUL 17 1989
GROUND WATER BUREAU

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407800

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9710

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40862

2/27/89

CARLSBAD BRINE STATION
FRESH WATER TO BRINE WATER COMPARISON FOR 1988

Page 1

MONTH	FRESH WATER GALLONS PURCHASED	FRESH WATER BARRELS PURCHASED	BRINE WATER SALES
JANUARY	263000	6260	7990
FEBRUARY	389000	9260	6400
MARCH	307000	7310	6390
APRIL	164000	3900	7735
MAY	387000	9210	8400
JUNE	452000	10760	6510
JULY	334000	7950	3300
AUGUST	75000	1790	8530
SEPTEMBER	972000	23140	8375
OCTOBER	378000	9000	7245
NOVEMBER	271000	6450	8965
DECEMBER	365000	8690	5510

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4357000=====
103740=====
85350

R E C E I V E D
FEB 28 1989
GROUND WATER BUREAU



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W A T E R A N A L Y S I S

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: N.M.E.I.D.
FACILITY: CARLSBAD BRINE WELL
LOCATION: CARLSBAD, NM.

DATE: 01/18/89
SAMPLE DATE: 01/14/89
DATE ANALYZED: 01/17/89

SAMPLE IDENTIFICATION : CARLSBAD
BRINE
WELL

pH		6.58
PHENO ALKALINITY	(CaCO3)	NIL
TOTAL ALKALINITY	(CaCO3)	50
BICARBONATE	(HCO3)	61.0
CARBONATE	(CO3)	NIL
HYDROXIDE	(OH)	NIL
TOTAL HARDNESS	(CaCO3)	4000
CALCIUM	(Ca)	1600.0
CALCIUM	(CaCO3)	4000
MAGNESIUM	(Mg)	NIL
MAGNESIUM	(CaCO3)	NIL
CHLORIDE	(Cl)	206800
SULFATE	(SO4)	6175
TOTAL PHOSPHATE	(PO4)	***
ORTHO PHOSPHATE	(PO4)	***
POLY PHOSPHATE	(PO4)	***
SILICA	(SiO2)	160.0
SPECIFIC CONDUCTANCE	(mmhos)	137400
IRON	(Fe)	0.50
COPPER	(Cu)	0.50

CALCULATED :
TOTAL DISSOLVED SOLIDS 349921
SODIUM (Na) 135125

ANALYZED BY:

John Branning
(HOBBS LAB)

APPROVED BY:

Jim Branning

*** INDICATES THAT THIS TEST WAS NOT RUN



ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

DATE: 01/18/89
SAMPLE DATE: 01/14/89
DATE ANALYZED: 01/17/89

CARLSBAD
BRINE
WELL

POTASSIUM (as K)	21.0
NITRATES (as NO3)	14.08
NITRATES (as N)	3.2

*** INDICATES THAT THIS TEST WAS NOT RUN

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ROWLAND TRUCKING

Date : 01-29-1989

Location: Carlsbad Brine Well (on 1-18-1989)

	<u>Sample 1</u>
Specific Gravity:	1.227
Total Dissolved Solids:	317770
pH:	7.37
IONIC STRENGTH:	5.528

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	80.0	1600
Magnesium	(Mg ⁺²)	24.0	292
Sodium	(Na ⁺¹)	5330	122000

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	2.60	159
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	68.2	3280
Chloride	(Cl ⁻¹)	5360	190000

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium</u>	<u>Calcium</u>
		<u>Carbonate</u>	<u>Sulfate</u>
86°F	30°C	2.3	-18



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WATER ANALYSIS

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: WAYNE PRICE
FACILITY: CARLSBAD BRINE WELL
LOCATION: CARLSBAD, NM.

DATE: 05/05/88
SAMPLE DATE: 04/20/88
DATE ANALYZED: 05/02/88

SAMPLE IDENTIFICATION : CARLSBAD
BRINE
WELL

pH		6.25
PHEND ALKALINITY	(CaCO3)	NIL
TOTAL ALKALINITY	(CaCO3)	72
BICARBONATE	(HCO3)	87.8
CARBONATE	(CO3)	NIL
HYDROXIDE	(OH)	NIL
TOTAL HARDNESS	(CaCO3)	3840
CALCIUM	(Ca)	1480.0
CALCIUM	(CaCO3)	3700
MAGNESIUM	(Mg)	33.6
MAGNESIUM	(CaCO3)	140
CHLORIDE	(Cl)	185000
CHROMATE	(CrO4)	***
SULFATE	(SO4)	5250
TOTAL PHOSPHATE	(PO4)	***
ORTHO PHOSPHATE	(PO4)	***
POLY PHOSPHATE	(PO4)	***
SILICA	(SiO2)	***
SILICA	(CaCO3)	***
SPECIFIC CONDUCTANCE	(mmhos)	176800
IRON	(Fe)	1.02
COPPER	(Cu)	***

CALCULATED :

TOTAL DISSOLVED SOLIDS		312493
SODIUM	(Na)	120642

ANALYZED BY: *Dyle Branning*

(HOBBS LAB)

APPROVED BY: *Jimmy Pindt*

*** INDICATES THAT THIS TEST WAS NOT RUN



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W A T E R A N A L Y S I S

ALL RESULTS EXPRESSED IN PPM UNLESS OTHERWISE NOTED

CLIENT NAME: WAYNE PRICE
FACILITY: CARLSBAD BRINE WELL
LOCATION: CARLSBAD, NM.

DATE: 05/05/88
SAMPLE DATE: 04/20/88
DATE ANALYZED: 05/02/88

SAMPLE IDENTIFICATION : CARLSBAD
 BRINE
 WELL

TOTAL DISSOLVED SOLIDS	300.2 mg/l
POTASSIUM (as K)	190 mg/l
NITRATES (as NO3)	37.4 mg/l
NITRATES (as N)	8.5 mg/l

*** INDICATES THAT THIS TEST WAS NOT RUN

	INITIALS	DATE	REFERENCE
PREPARED BY			
CHECKED BY			
APPROVED BY			

Carlstad Brine Well

Year-End Results (1987)

Fresh Water to Brine
Production Comparison

Fresh Water to Brine Production Comparison 1987

LINE No.	(1)	(2)	(3)	(4)	(5)	LINE No.
	Meter # 01-02350-01 gallons	Meter # 01-20475-01 gallons	Meter # 01-20400-1 gallons	Total Fresh Bbls	Brine Sales Bbls	
1	-	180000	13000	4595.24	9800.00	1
2	33000	402000	96000	12642.86	4800.00	2
3	60000	149000	36000	5833.33	6610.00	3
4	67000	165000	39000	6452.38	5550.00	4
5	40000	101000	23000	3904.76	3125.00	5
6	29000	97000	23000	3785.71	12875.00	6
7	101000	255000	61000	9928.57	8395.00	7
8	91000	228000	53000	8857.14	16055.00	8
9	173000	-	104000	6595.24	9910.00	9
10	98000	252000	60000	9761.90	16655.00	10
11	148000	380000	90000	14714.29	7800.00	11
12	111000	275000	68000	10809.52	6770.00	12
13						13
14						14
15						15
16	961,000 gal	2,484,000 gal	666,000 gal	97880.95	108345.00	16
17						17
18						18
19						19
20						20
21						21
22						22
23						23
24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32						32

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Rowland Trucking

Date : 02-23-1988

Location: Carlsbad Brine Well - Wellhead (on 02-22-1988)

Sample 1

Specific Gravity:

1.218

Total Dissolved Solids:

305489

pH:

6.46

IONIC STRENGTH:

5.310

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	84.0	1680
Magnesium	(Mg ⁺²)	16.0	194
Sodium	(Na ⁺¹)	5120	118000
Iron (total)	(Fe ⁺²)	0.086	2.40

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	3.00	183
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	56.2	2700
Chloride	(Cl ⁻¹)	5160	183000

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium</u>	<u>Calcium</u>
		<u>Carbonate</u>	<u>Sulfate</u>
86°F	30°C	1.1	-25

Potassium - 69.5 ppm

Nitrates - 10.56 mg/l (2.4 mg/l as nitrogen)



1Q1987

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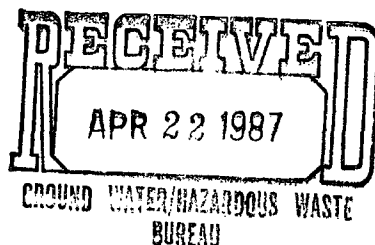
WATER ANALYSIS

CLIENT NAME: ROWLAND TRUCKING CO.
FACILITY: CARLSBAD BRINE STATION
LOCATION: CARLSBAD, NM

DATE: 04/15/87
SAMPLE DATE: 04/14/87
DATE ANALYZED: 04/15/87

SAMPLE IDENTIFICATION - BRINE WATER

CHLORIDE	200000	PPM	AS	C1
SULFATE	5140	PPM	AS	SQ4
NITRATE	27.3	PPM	AS	NO3
SPECIFIC CONDUCTANCE	167800	umhos		



ANALYZED BY: *Joanna Londo*
(HOBBS LAB)

APPROVED BY: *Ted Schlosser*

*** INDICATES THAT THIS TEST WAS NOT RUN

UNICHEM INTERNATIONAL INC.

EUNICE RENTAL TOOL COMPANY DIVISION
UNICHEM INTERNATIONAL, INC.

P. O. Box 1196
EUNICE, NEW MEXICO 88231

November 4, 1981

Volumes

8-76 to 9-81

Analysis 3Q 1977

New Mexico Oil Conservation Commission
P. O. Drawer "DD"
Artesia, New Mexico 88210

ATTN: Mr. Larry Brooks

Gentlemen:

The following is a breakdown by month of brine production based on actual sales and fresh water purchased at the brine well site from the City of Carlsbad:

<u>DATE</u>	<u>BRINE</u>	<u>FRESH</u>	
8/76	150 bbls.		
9/76	5788 bbls.	833 bbls.	225 psi
10/76	5180 bbls.	8667 bbls.	225 psi
11/76	14660 bbls.	19167 bbls.	225 psi
12/76	18250 bbls.	21405 bbls.	225 psi
1/77	13272 bbls.	14238 bbls.	225 psi
2/77	21795 bbls.	19500 bbls.	225 psi
3/77	15225 bbls.	19524 bbls.	225 psi
4/77	24265 bbls.	23048 bbls.	225 psi
5/77	29380 bbls.	29429 bbls.	225 psi
6/77	18680 bbls.	18048 bbls.	225 psi
7/77	31745 bbls.	26333 bbls.	225 psi
8/77	30455 bbls.	38071 bbls.	225 psi
9/77	44920 bbls.	62405 bbls.	225 psi
10/77	16189 bbls.	19762 bbls.	225 psi
11/77	29295 bbls.	34619 bbls.	225 psi
12/77	31608 bbls.	34976 bbls.	225 psi

EUNICE RENTAL TOOL COMPANY DIVISION
UNICHEM INTERNATIONAL, INC.

P. O. Box 1196
EUNICE, NEW MEXICO 88231

New Mexico Oil Conservation Commission
Mr. Larry Brooks

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<u>DATE</u>	<u>BRINE</u>	<u>FRESH</u>	
1/78	57986 bbls.	66286 bbls.	225 psi
2/78	61340 bbls.	61214 bbls.	225 psi
3/78	62244 bbls.	59786 bbls.	225 psi
4/78	17713 bbls.	29429 bbls.	225 psi
5/78	23565 bbls.	49381 bbls.	225 psi
6/78	34326 bbls.	69738 bbls.	225 psi
7/78	70789 bbls.	69976 bbls.	225 psi
8/78	46808 bbls.	52190 bbls.	225 psi
9/78	49740 bbls.	57643 bbls.	225 psi
10/78	38456 bbls.	37452 bbls.	225 psi
11/78	17277 bbls.	17714 bbls.	225 psi
12/78	42445 bbls.	62857 bbls.	225 psi
1/79	46220 bbls.	57809 bbls.	225 psi
2/79	26843 bbls.	30333 bbls.	225 psi
3/79	22060 bbls.	24429 bbls.	225 psi
4/79	26140 bbls.	26762 bbls.	225 psi
5/79	14940 bbls.	31238 bbls.	225 psi
6/79	26235 bbls.	44143 bbls.	225 psi
7/79	32180 bbls.	25000 bbls.	225 psi
8/79	57339 bbls.	66048 bbls.	225 psi
9/79	25662 bbls.	23524 bbls.	225 psi
10/79	40065 bbls.	38357 bbls.	225 psi
11/79	31274 bbls.	34762 bbls.	225 psi
12/79	21587 bbls.	23857 bbls.	225 psi
1/80	35918 bbls.	37905 bbls.	225 psi
2/80	18435 bbls.	21333 bbls.	225 psi

EUNICE RENTAL TOOL COMPANY DIVISION UNICHEM INTERNATIONAL, INC.

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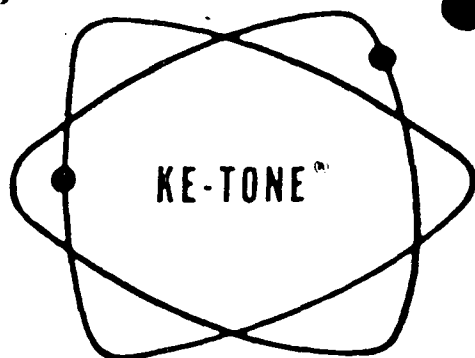
Page 3

<u>DATE</u>	<u>BRINE</u>	<u>FRESH</u>	
3/80	20573 bbls.	20667 bbls.	225 psi
4/80	34415 bbls.	31857 bbls.	225 psi
5/80	41195 bbls.	43881 bbls.	225 psi
6/80	25525 bbls.	21024 bbls.	225 psi
7/80	32953 bbls.	31167 bbls.	225 psi
8/80	19440 bbls.	23310 bbls.	225 psi
9/80	21755 bbls.	22976 bbls.	225 psi
10/80	39155 bbls.	39880 bbls.	225 psi
11/80	35865 bbls.	38952 bbls.	225 psi
12/80	51988 bbls.	56524 bbls.	225 psi
1/81	32247 bbls.	28952 bbls.	225 psi
2/81	31955 bbls.	39762 bbls.	225 psi
3/81	34670 bbls.	40214 bbls.	225 psi
4/81	44265 bbls.	39119 bbls.	225 psi
5/81	26795 bbls.	26310 bbls.	225 psi
6/81	33447 bbls.	33738 bbls.	225 psi
7/81	51910 bbls.	53905 bbls.	225 psi
8/81	30195 bbls.	32214 bbls.	225 psi
9/81	39649 bbls.	45929 bbls.	225 psi

The injection rate on fresh water stays constant as we have an auxilliary pump on the fresh water lines to inject fluid down the well. This rate is approximately 225 psi. The well is timed to produce thirty minutes (30) on and thirty minutes (30) off each hour and produces between One Hundred Fifty (150) and One Hundred Sixty (160) barrels per hour.

Some fresh water is sold as fresh water for which we have no breakdown. Also, in accounting for the fresh water used, we would have to take into consideration that there is a trailer house at the well site which is hooked up to the fresh water supply. On several occasions the fresh

Total = 194,694 (2 months)
~ 32,000/mo.



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

HOBBS, NEW MEXICO 88240

P. O. BOX 1499

RECEIVED

OCT 27 1981

Company Rowland Trucking

Field

Lease Carlsbad Brine Well

Sampling Date 9-14-77

Type of Sample Trucker's Brine

O. C. D.
ARTESIA, OFFICE

WATER ANALYSIS

IONIC FORM

me/l *

mg/l *

90.00

1,800

42.00

504

5,265.89

121,063

2

(CALCULATED)

2.60

159

Not

Found

Not

Found

93.69

4,500

5,301.60

188,000

316,026

132.00

6,600

2.60

130

129.40

6,470

2.60

130

Calcium (Ca++)
Magnesium (Mg++)
Sodium (Na+)
Iron (Total)Bicarbonate (HCO₃-)
Carbonate (CO₃-)
Hydroxide (OH-)
Sulphate (SO₄-)
Chloride (Cl-)

Total Dissolved Solids

6.9 pH c 68 °F
Dissolved Solids on Evap. at 103° - 105° C
Hardness as Ca CO₃
Carbonate Hardness as CaCO₃ (temporary)
Non-Carbonate Hardness as CaCO₃ (permanent)
Alkalinity as CaCO₃
Specific Gravity c 68° F 1.195

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

Makes Water Work

EUNICE RENTAL TOOL COMPANY DIVISION
UNICHEM INTERNATIONAL, INC.

P. O. Box 1196
EUNICE, NEW MEXICO 88231

October 23, 1981

8-76 to 9-81
received
OCT 29 1981

Bond under Truckers H_2O Co.

New Mexico Oil Conservation Commission
P. O. Drawer "DD"
Artesia, New Mexico 88210

ATTN: Mr. Larry Brooks

Gentlmen:

In answer to your request, the following is a general production history of our brine well, City of Carlsbad # 1, located in Unit letter H, 2420' from the north line and 330' from the east line of Section 36, Township 22 South, Range 26 East, Eddy County, New Mexico.

Application to drill was filed in May, 1976, drilling completed and the well put into production in August, 1976. Brine water is produced by pumping fresh water from the City of Carlsbad with an auxiliary pump at the rate of 225 psi into the salt section at approximately 742 feet. Brine water can be produced at a rate of 160 barrels per hour. Storage capacity at the well site is 3000 barrels. A brine sales meter was installed in December, 1978, which is used to meter production of brine. Fresh water meters belong to the City of Carlsbad.

The following is a breakdown by month of brine production based on actual sales by the barrel.

8/76	150	5/77	29380	2/78	61340	11/78	17277
9/76	5788	6/77	18680	3/78	62244	12/78	42445
10/76	5180	7/77	31745	4/78	17713	1/79	46220
11/76	14660	8/77	30455	5/78	23565	2/79	26843
12/76	18250	9/77	44920	6/78	34326	3/79	22060
1/77	13272	10/77	16189	7/78	70789	4/79	26140
2/77	21795	11/77	29295	8/78	46808	5/79	14940
3/77	15225	12/77	31608	9/78	49740	6/79	26235
4/77	24265	1/78	57986	10/78	38456	7/79	32180

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October 23, 1981

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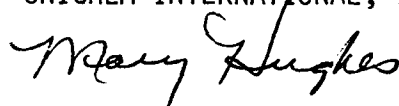
8/79	57339	3/80	20573	10/80	39155	5/81	26795
9/79	25662	4/80	34415	11/80	35865	6/81	33447
10/79	40065	5/80	41195	12/80	51988	7/81	51910
11/79	31274	6/80	25525	1/81	32247	8/81	30195
12/79	21587	7/80	32953	2/81	31955	9/81	39649
1/80	35918	8/80	19440	3/81	34670		
2/80	18435	9/80	21755	4/81	44265		

We are enclosing a copy of the water analysis of the brine water produced from this well.

If there is any additional information you need, please contact us.

Yours truly,

Eunice Rental Tool Co. Division
UNICHEM INTERNATIONAL, INC.



Office Manager

MH/s

Encl: