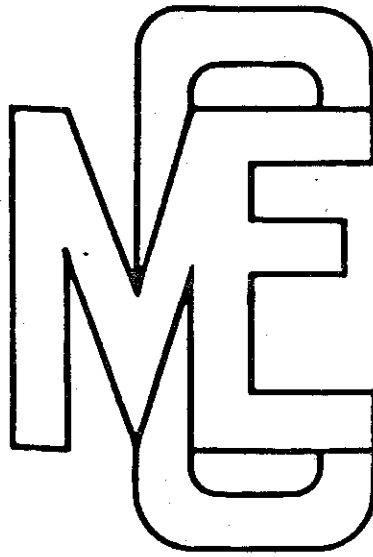


MCE TEST REPORT



COMPANY: R & R ENERGY

LOCATION: Sulpherdale

WELL NO.: 42-7

DATE: 6/26/80

MEASUREMENT AND CONTROL ENGINEERING

P.O. Box 987 Ventura, California 93001

Phone: (805) 648-7282

Long Beach, Calif. (213) 426-9794 Bakersfield, Calif. (805) 327-2394



MEASUREMENT AND CONTROL ENGINEERING

Date: 6/26/80
Company: R & R ENERGY
Location: Sulpherdale
Well No.: 42-7
Test Interval:
MCE Technician:

OPERATIONS LOG

Page 1 of 1

DATE & TIME

OPERATIONS LOG

1425 Halliburton start pump H2 at 1000 SCFM thru 2 7/8 TBG at 3100 ft
1441 Fluid to surface stop pump N2
1508 Start pump N2 at 600 SCFM
1527 Fluid to surface
1725 Halliburton stop pumping

SUMMAEY

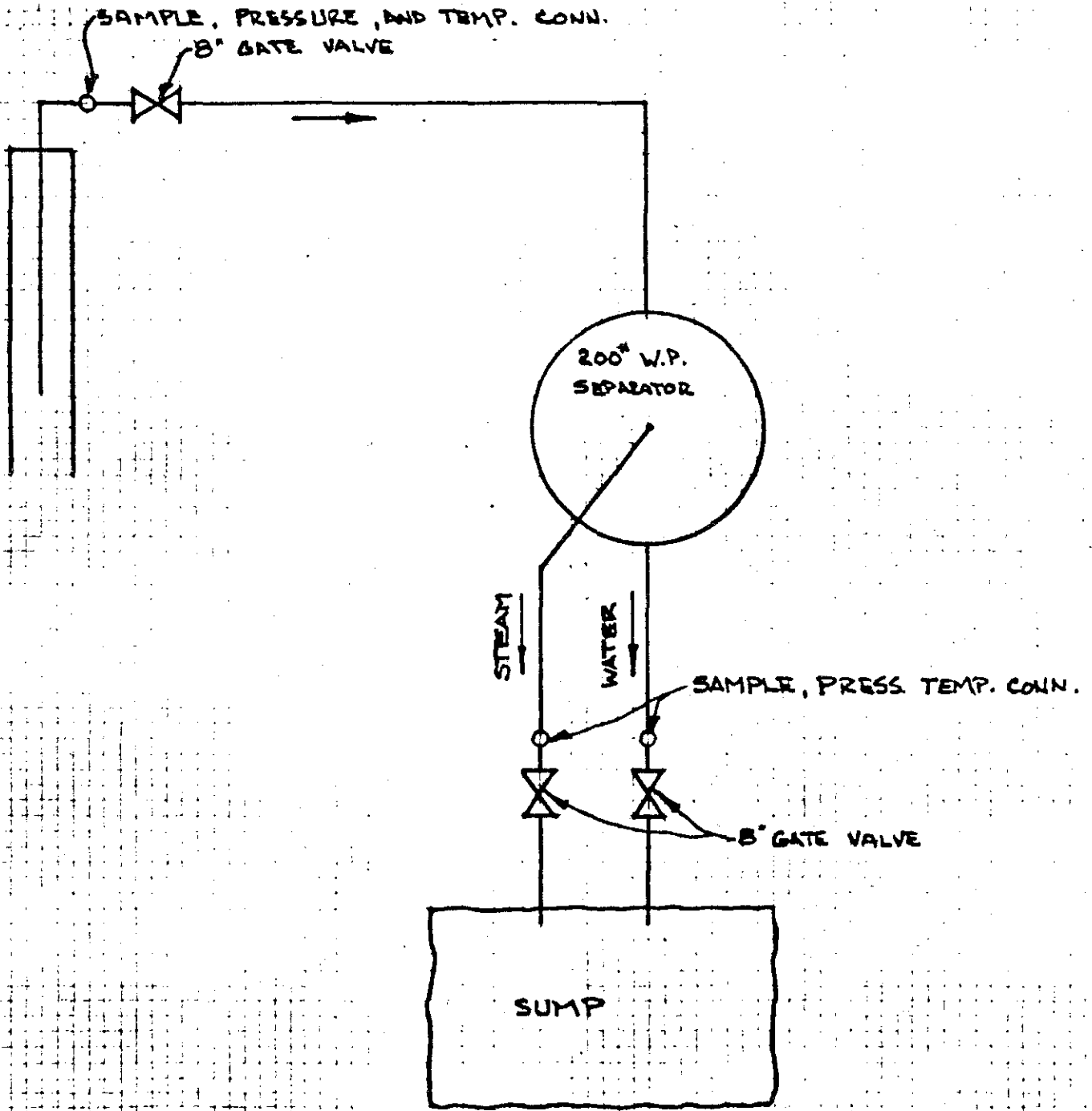
Well Stabilized at 40,009 lb/m/hr steam and 356 GPM
water rate calculated over stable period from 1655 to 1725



MEASUREMENT AND
CONTROL ENGINEERING

Date: 6/26/80
Company: R & R Energy
Location: Sulpherdale
Well No.: 42-7
Test Interval: _____
MCE Technician: _____

SURFACE EQUIPMENT LAYOUT





2960 N. Ventura Ave.
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-324-2208

SUBSURFACE SURVEY DATA

Company R & R Energies Field Beaver, Utah Date 6-25-80 Run #1
 Well Sulphurdale Tubing PSI 0 / Casing PSI 0
 Purpose 25' per minute Bottom Hole Temperature Survey Status _____
 Depth of Inst. _____ Zero KB = 22' Pickup _____ Temp. Max 340.6°
 Casing Size 13 3/8 Depth _____ Liner Size 9 5/8--7" Top 1326--Plug Bottom _____
 Perforations _____
 Tubing None

Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp
1800	286.5	2125	307.0	2450	310.8	2775	310.1
1825	290.3	2150	307.0	2475	311.1	2800	310.1
1850	291.3	2175	307.1	2500	310.3	2825	310.1
1875	292.7	2200	309.8	2525	311.1	2850	310.1
1900	295.1	2225	311.1	2550	310.3	2875	310.1
1925	296.8	2250	311.6	2575	311.0	2900	310.1
1950	298.5	2275	311.8	2600	310.1	2925	310.1
1975	300.3	2300	312.1	2625	310.5	2950	310.1
2000	302.3	2325	310.6	2650	310.5	2975	310.1
2025	304.0	2350	311.0	2675	310.1	3000	310.1
2050	304.6	2375	311.0	2700	310.1		
2075	305.8	2400	311.1	2725	310.1		
2100	306.6	2425	311.3	2750	310.1		

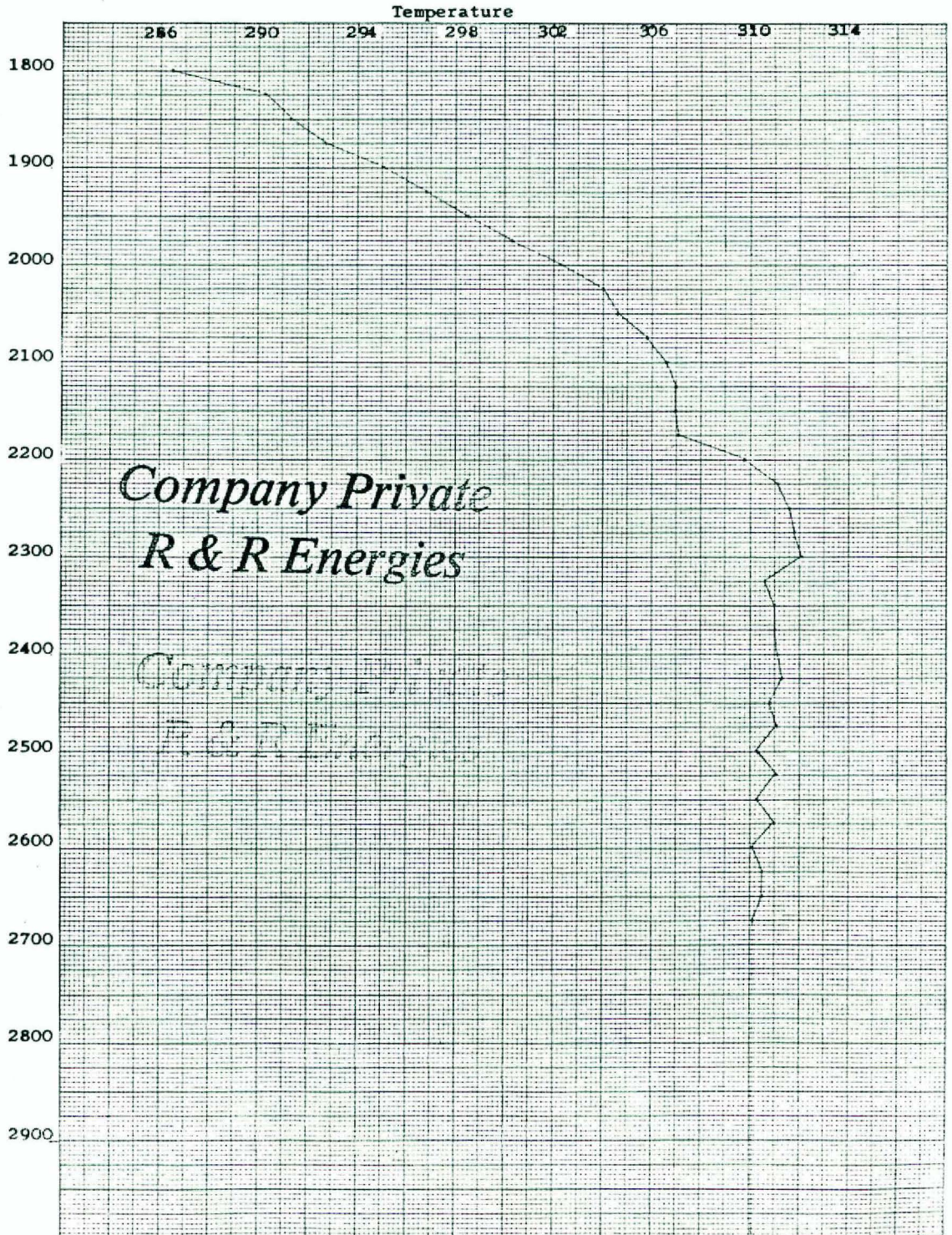


Fig 2

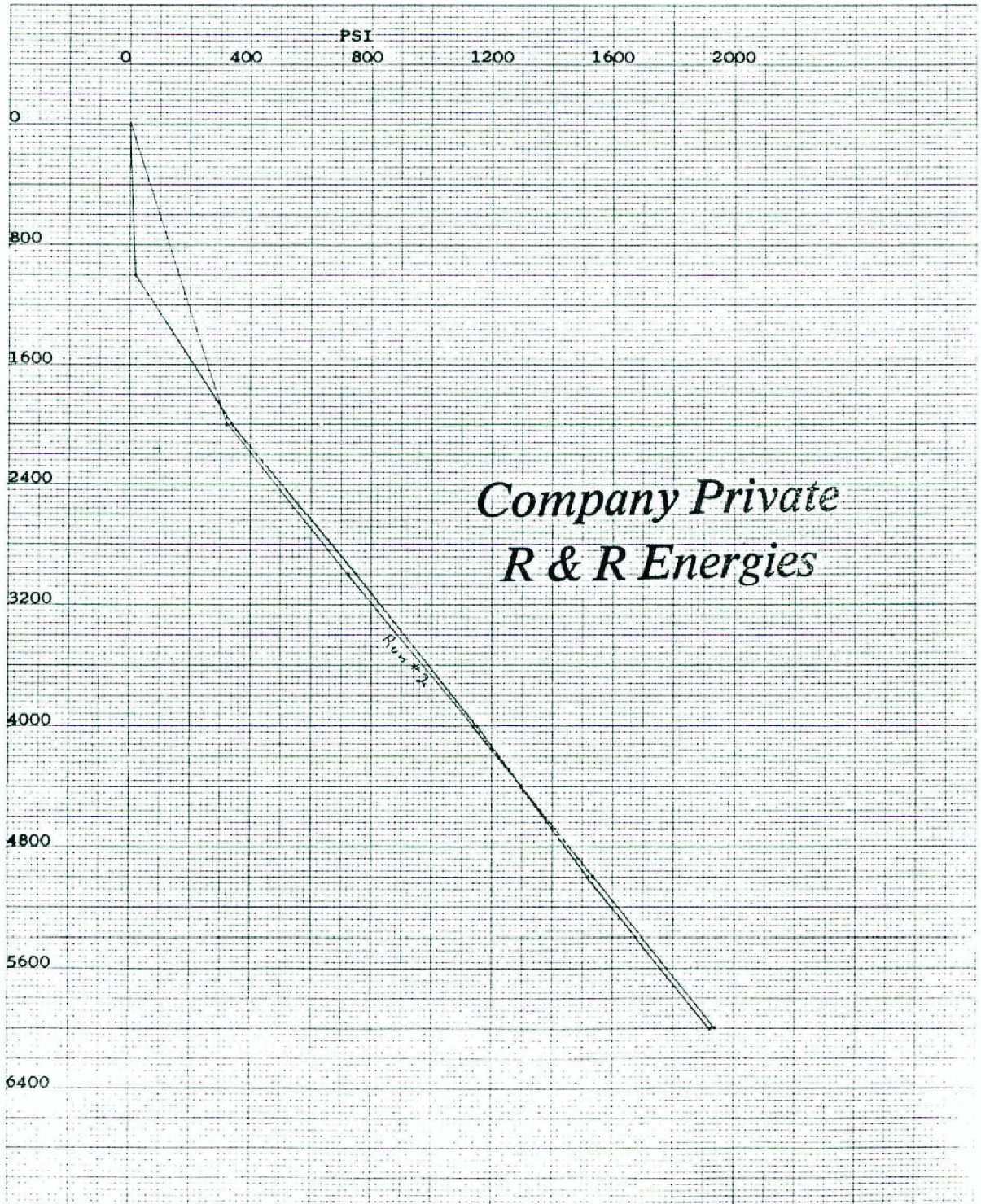


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Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-324-2208

SUBSURFACE SURVEY DATA

Company R & R Energies Field Beaver, Utah Run #2 Date 6-26-80 Run #3 Date 6-26-80
 Well Sulphurdale Tubing PSI 0 Casing PSI 0
 Purpose Bottom Hole Pressure Gradient Survey Status _____
 Depth of Inst. _____ Zero KB = 22' Pickup _____ Temp. Max 340.6°
 Casing Size 13 3/8 Depth _____ Liner Size 9 5/8--7" Top 1326--3148 Bottom _____
 Perforations _____
 Tubing Hung to 3048 2 7/8"

Run #2			Run #3			Fluid Level		Tests	
Depth	PSI	Grad	Depth	PSI	Grad	Date	Time	Fluid	Level
0	0		0	0		6-25	0930		1271
---	---	---	1000	18	.018	6-26	0710		1302
2000	321	.161	2000	337	.319	6-27	0905		975
3000	724	.403	3000	753	.416	Tests indicate good perm.			
4000	1140	.416	4000	1150	.397	No production index available because of increase in bottom hole pressure.			
4400	1297	.393	4400	1297	.368	This could indicate minor skin or well bore damage.			
5000	1520	.372	5000	1535	.397				
6000	1924	.404	6000	1939	.404				





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Bakersfield 805-324-2208

SUBSURFACE SURVEY DATA

Company R & R Energies Field Beaver, Utah Run #2 Date 6-26-80 Run #3 Date 6-26-80
 Well Sulphurdale Tubing PSI 0 Casing PSI 0
 Purpose Bottom Hole Temperature Survey Status _____
 Depth of Inst. _____ Zero KB = 22' Pickup _____ Temp. Max 340.6°
 Casing Size 13 3/8 Depth _____ Liner Size 9 5/8--7" Top 1326--3148 Bottom _____
 Perforations _____
 Tubing 2 7/8" Hung to 3048

Run #2			Run #3		
Time	Depth	Temp	Time	Depth	Temp
0725	0	78.3	1803	0	83.4
---	---	---	1810	1000	181.0
0734	2000	306.6	1817	2000	317.3
0742	3000	315.5	1824	3000	330.9
0749	4000	337.8	1831	4000	337.1
0755	4400	340.6	1838	4400	340.6
0802	5000	337.9	1845	5000	337.3
0810	6000	336.6	1853	6000	336.8

Well was produced @ high rate between tests

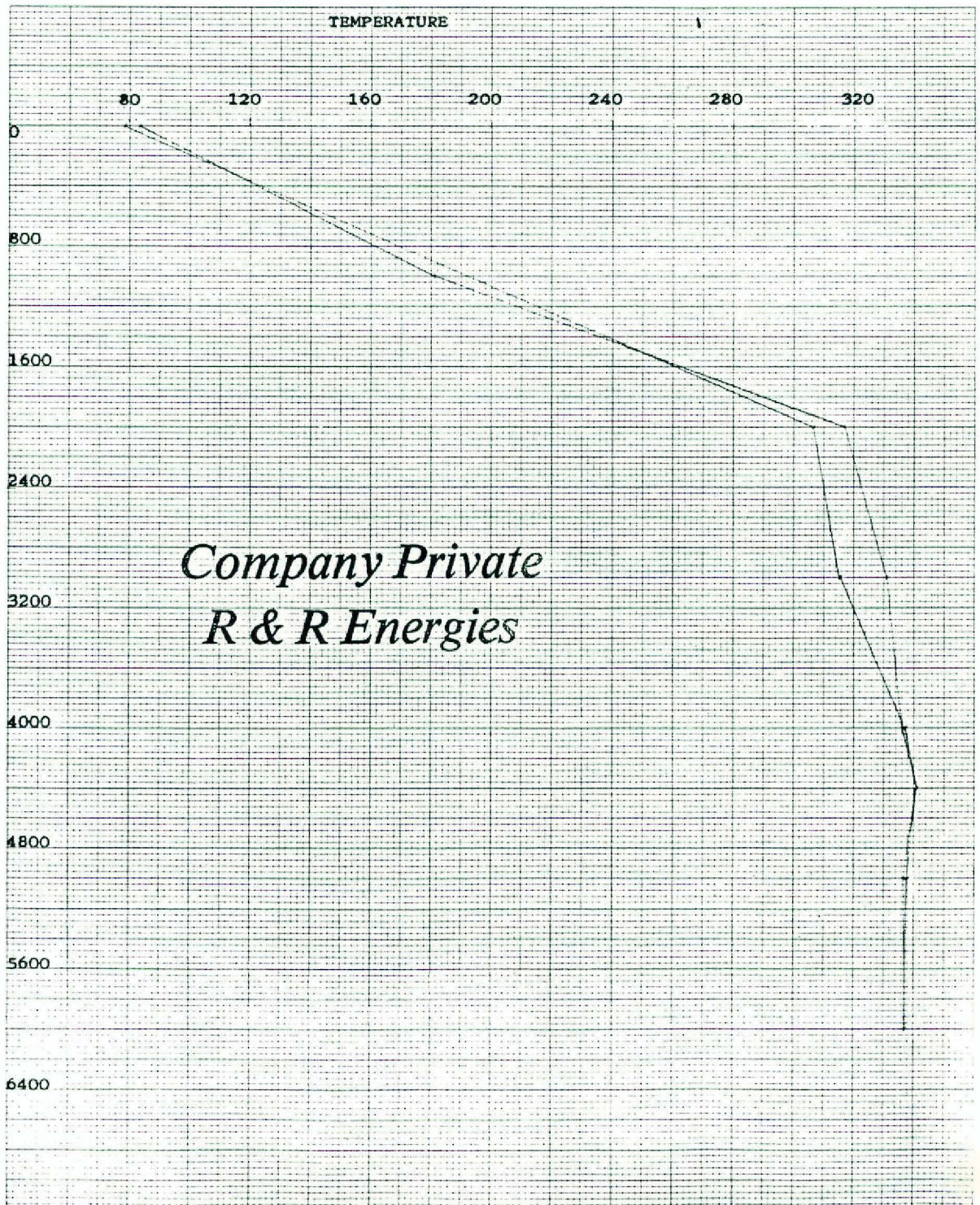


Fig 3

UNITED STATES DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY
 CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
 LAB-ID # 182601 RECORD-# 105395

SAMPLE LOCATION: R&R ENERGIES WELL NO. 42-7
 STATION ID: 383402112342201 LAT.LONG.SEQ.: 383402 1123422 01
 DATE OF COLLECTION: BEGIN--800626 END-- TIME--2000
 STATE CODE: 49 COUNTY CODE: 001 PROJECT IDENTIFICATION: 464990090
 DATA TYPE: 2 SOURCE: GROUND WATER GEOLOGIC UNIT:
 COMMENTS: UNIQUE-#:
 SECTION 7, T265, RGW SLM. KICKED OFF BY NA; 4300-4400 FEET, MET.
 MARBLE OF PENNSYLVANIAN, AGE, FORMATION DEFINITELY OQUIRRH; K
 RUNS: CA=478 NA=1100, K=190, CL=1800, SO4=600

ALK, TOT (CACO3)	MG/L	62	NITR TOT NO2+NO3 -N	MG/L	0.02
ANALYZING AGENCY		80020	NITR TOT NH4 AS N	DETR. DELETED	
BORON DISSOLVED	UG/L	11000	NITR. TOT NH4 AS NH4	MG/L	0.68
CALCIUM DISS	MG/L	49	PH LAB		8.6
CHLORIDE DISS	MG/L	1700	POTASSIUM DISS	MG/L	200
FLUORIDE DISS	MG/L	7.8	POTASSIUM 40, D.PCI/L		150
HARDNESS NONCARB	MG/L	66	RESIDUE DIS CALC SUM	MG/L	3810
HARDNESS TOTAL	MG/L	130	RESIDUE DIS TON/AFT		5.18
LITHIUM DISSOLVED	UG/L	5000	SAR		42
MAGNESIUM DISS	MG/L	1.4	SILICA DISSOLVED	MG/L	170
NITR DIS NO2+NO3 -N	MG/L	1.8	SODIUM DISS	MG/L	1100
NITR TOT NO2 AS N	MG/L	0.04	SODIUM PERCENT		86
NITR TOT NO3 AS N	MG/L	0.00	SP. CONDUCTANCE LAB		6213
			SULFATE DISS	MG/L	520

CATIONS			ANIONS		
	(MG/L)	(MEQ/L)		(MG/L)	(MEQ/L)
CALCIUM DISS	49	2.445	CHLORIDE DISS	1700	47.957
MAGNESIUM DISS	1.4	0.115	FLUORIDE DISS	7.8	0.411
POTASSIUM DISS	200	5.114	SULFATE DISS	520	10.826
SODIUM DISS	1100	47.850	ALK, TOT (CACO3)	62	1.239
			NITR DIS NO2+N	1.8	0.129
TOTAL		55.524	TOTAL		60.561

PERCENT DIFFERENCE = -4.34

1ST RETRIEVAL THROUGH "LABPRIM" 09/13/80

MAIL TO UTAH
 SCHEDULES USED: 1023 1038 0 0
 TOTAL PARAMETERS: 29 HCODE = 16
 COST OF ANALYSIS \$ 52.40 BILLING CODE: 49
 SUBMIT CORRECTIONS TO THE DENVER CENLAB LAB
 WITHIN 15 DAYS FROM 09/17/80. INDICATE THE
 CENTRAL LAB ID # AND RECORD # WITH RESPONSE.
 WRD-QW FILE STORAGE WAS REQUESTED AND THE
 STATION HEADING INFORMATION IN THE WRD STATION
 HEADER FILE WAS SUBSTITUTED HERE. PLEASE CHECK.

$T_{gSiO_2} = 159^{\circ}C$

$T_{Na-K} = 274$

$T_{Na-K-Ca} = 175^{\circ}C$

UNITED STATES DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY
 CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
 LAB-ID # 184014 RECORD-# 106588

SAMPLE LOCATION: R&R ENERGIES WELL NO. 42-7
 STATION ID: 383402112347201 LAT.LONG.SEQ.: 383402 1123422 01
 DATE OF COLLECTION: BEGIN--800626 END-- TIME--2100
 STATE CODE: 49 COUNTY CODE: 001 PROJECT IDENTIFICATION: 464990090
 DATA TYPE: 2 SOURCE: GROUND WATER GEOLOGIC UNIT:
 COMMENTS: UNIQUE-#:
 COLLECT NEAR END OF TEST; K. THOMPSON
 RERUNS: CA = 13, MG = 1.7, NA = 170, K = 32, CL = 180, SO4 = 150

1ST RETRIEVAL THROUGH "LABPRIM" 09/13/80

MAIL TO UTAH
 SCHEDULES USED: 1023 1038 0 0
 TOTAL PARAMETERS: 29 HCODE = 16
 COST OF ANALYSIS \$ 52.40 BILLING CODE: 49
 SUBMIT CORRECTIONS TO THE DENVER CENLAB LAB
 WITHIN 15 DAYS FROM 09/17/80. INDICATE THE
 CENTRAL LAB ID # AND RECORD # WITH RESPONSE.
 WRD-QW FILE STORAGE WAS REQUESTED AND THE
 STATION HEADING INFORMATION IN THE WRD STATION
 HEADER FILE WAS SUBSTITUTED HERE.PLEASE CHECK.

ALK,TOT(CACO3)	MG/L	180	NITR TOT NO2+NO3 -N	MG/L	0.01
ANALYZING AGENCY		80020	NITR TOT NH4 AS N	MG/L	27
BORON DISSOLVED	UG/L	1600	NITR. TOT NH4 AS NH4	MG/L	33
CALCIUM DISS	MG/L	15	PH LAB		7.5
CHLORIDE DISS	MG/L	170	POTASSIUM DISS	MG/L	32
FLUORIDE DISS	MG/L	6.8	POTASSIUM 40,D.PCI/L		24
HARDNESS NONCARB	MG/L	0	RESIDUE DIS CALC SUM	MG/L	675
HARDNESS TOTAL	MG/L	45	RESIDUE DIS TON/AFT		0.92
LITHIUM DISSOLVED	UG/L	610	SAR		11
MAGNESIUM DISS	MG/L	1.8	SILICA DISSOLVED	MG/L	29
NITR DIS NO2+NO3 -N	MG/L	0.02	SODIUM DISS	MG/L	170
NITR TOT NO2 AS N	MG/L	0.01	SODIUM PERCENT		81
NITR TOT NO3 AS N	MG/L	0.00	SP. CONDUCTANCE LAB		1250
			SULFATE DISS	MG/L	140

$$T_{SiO_2} = 82$$

$$T_{Na-K} = 278$$

$$T_{Na-K-Ca} = 171$$

CATIONS			ANIONS		
	(MG/L)	(MEQ/L)		(MG/L)	(MEQ/L)
CALCIUM DISS	15	0.749	CHLORIDE DISS	170	4.796
MAGNESIUM DISS	1.8	0.148	FLUORIDE DISS	6.8	0.358
POTASSIUM DISS	32	0.818	SULFATE DISS	140	2.915
SODIUM DISS	170	7.395	ALK,TOT(CACO3)	180	3.596
			NITR DIS NO2+N	0.02	0.001
TOTAL		9.110	TOTAL		11.666

PERCENT DIFFERENCE = -12.30

QUALITY CONTROL INFORMATION FOR LAB ID # 184014 RECORD # 06588

VALUE HAS BEEN VERIFIED BY LAB FOR BORON DISSOLVED	VALUE =	1600.000
***THE FOLLOWING PARAMETER MAY CONTRIBUTE TO CATION SUM--LI DISS	VALUE =	610.000
**CATION/.01(CONDUCTANCE) RATIO IS EITHER BELOW 0.92 OR ABOVE 1.24-----RATIO	VALUE =	0.728
**CALCULATED SOLIDS/CONDUCTANCE RATIO IS EITHER BELOW 0.55 OR ABOVE 0.81---RATIO	VALUE =	0.539
**THE PERCENT DIFFERENCE COMPUTED FOR THE ANALYSIS DOES NOT AGREE WITH THE CURVE	VALUE =	2.025

QUALITY CONTROL INFORMATION FOR LAB ID # 182601 RECORD # 05395

CHECKED OK: NITR DIS NO2+NO3 -N IS > NITR TOT NO2+NO3 -N
**LC 304,NO2 + NO3 AS N TOT IS LESS THAN LC 302,NITR. NO2 AS N TOTAL VALUE = 0.020
VALUE HAS BEEN VERIFIED BY LAB FOR BORON DISSOLVED VALUE = 11000.000
***THE FOLLOWING PARAMETER MAY CONTRIBUTE TO CATION SUM--LI DISS VALUE = 5000.000
**CATION/.01(CONDUCTANCE) RATIO IS EITHER BELOW 0.92 OR ABOVE 1.24-----RATIO VALUE = 0.893
**THE PERCENT DIFFERENCE COMPUTED FOR THE ANALYSIS DOES NOT AGREE WITH THE CURVE VALUE = 1.995
NITR TOT NH4 AS N WAS DELETED BECAUSE: INSUFFICIENT AMOUNT OF WATER.