

SECTION B-B

RRGE NO. 1
ELEV. 4835'

RRGE NO. 2
ELEV. 4845'

RRGE NO. 3
ELEV. 4860'

3915'

DATUM

7317'

0

RECENT

DEPTH
(FEET)

TERTIARY

PRE-CAMBRIAN

1000-

-1000

-1000

2000-

-2000

-2000

3000-

-3000

-3000

4000-

-4000

-4000

-5000

-5000

-6000

-6000

-2 KM

ALLUVIUM
RAFT RIVER FM

SALT LAKE FM

FAULT ZONE

CONTACT METAMORPHOSED QTZ - SHIST ZONE

ELBA QUARTZITE

QUARTZ MONZONITE

KO "C"
KO "B"

TD 5532 "B"
N50E 13 3/4°

TD 5853 "A"
N80W 6 3/4°

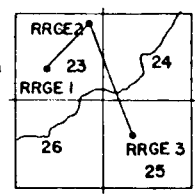
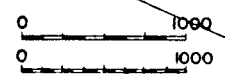
TD 5917 "C"
N60W 22 3/4°

TD 6543

TD 4989

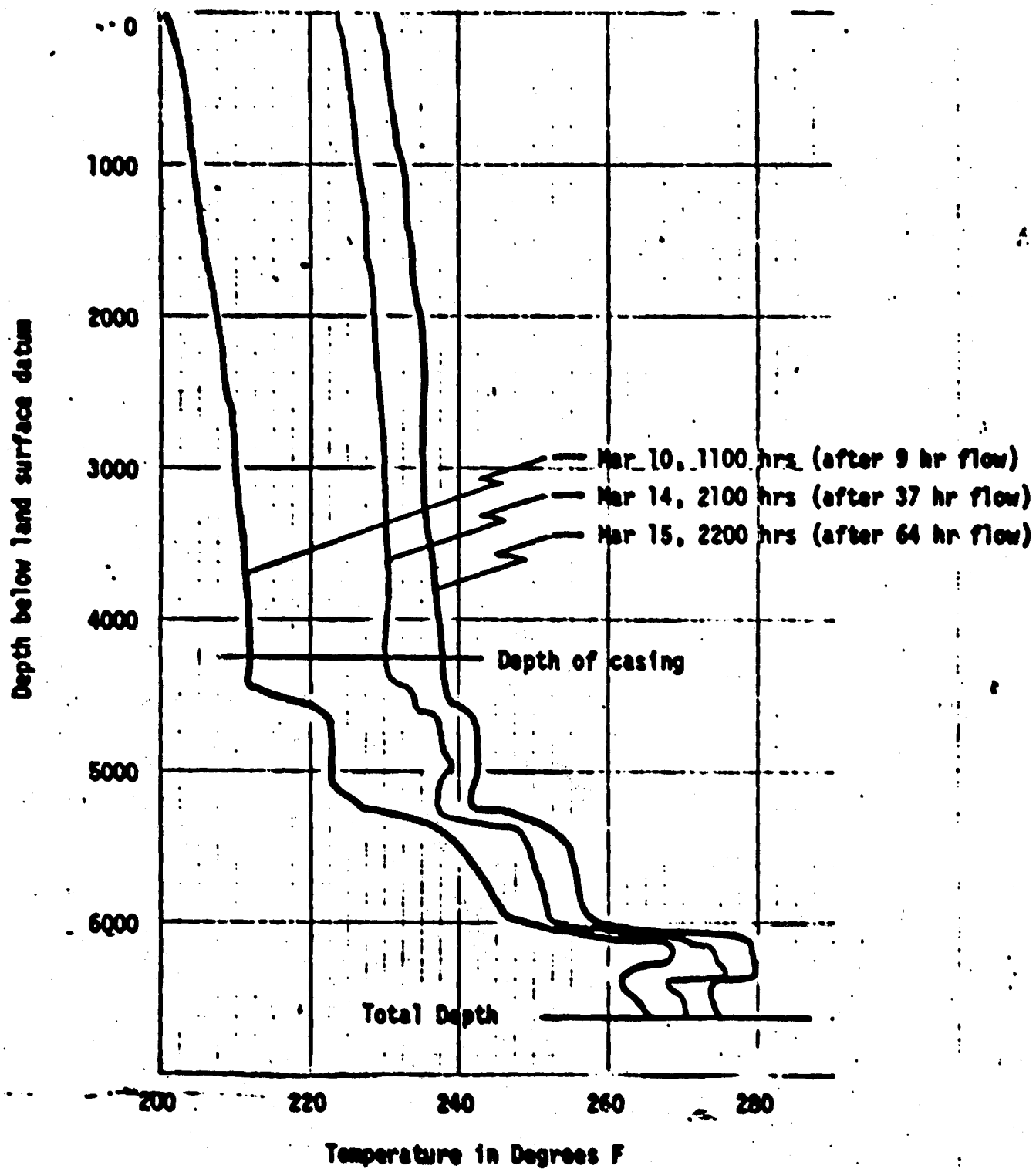
LEGEND

- Tuft
- Rhyolite
- Sandstone
- Shale
- Siltstone
- Shist
- Quartzite
- Quartz Monzonite
- Conglomerate
- Mica
- Pyrite
- Gypsum
- Cores



RAFT RIVER GEOTHERMAL EXPLORATORY WELL NO. 2

Temperature vs Depth



RRGE #2 RECOVERY AFTER REINJECTION

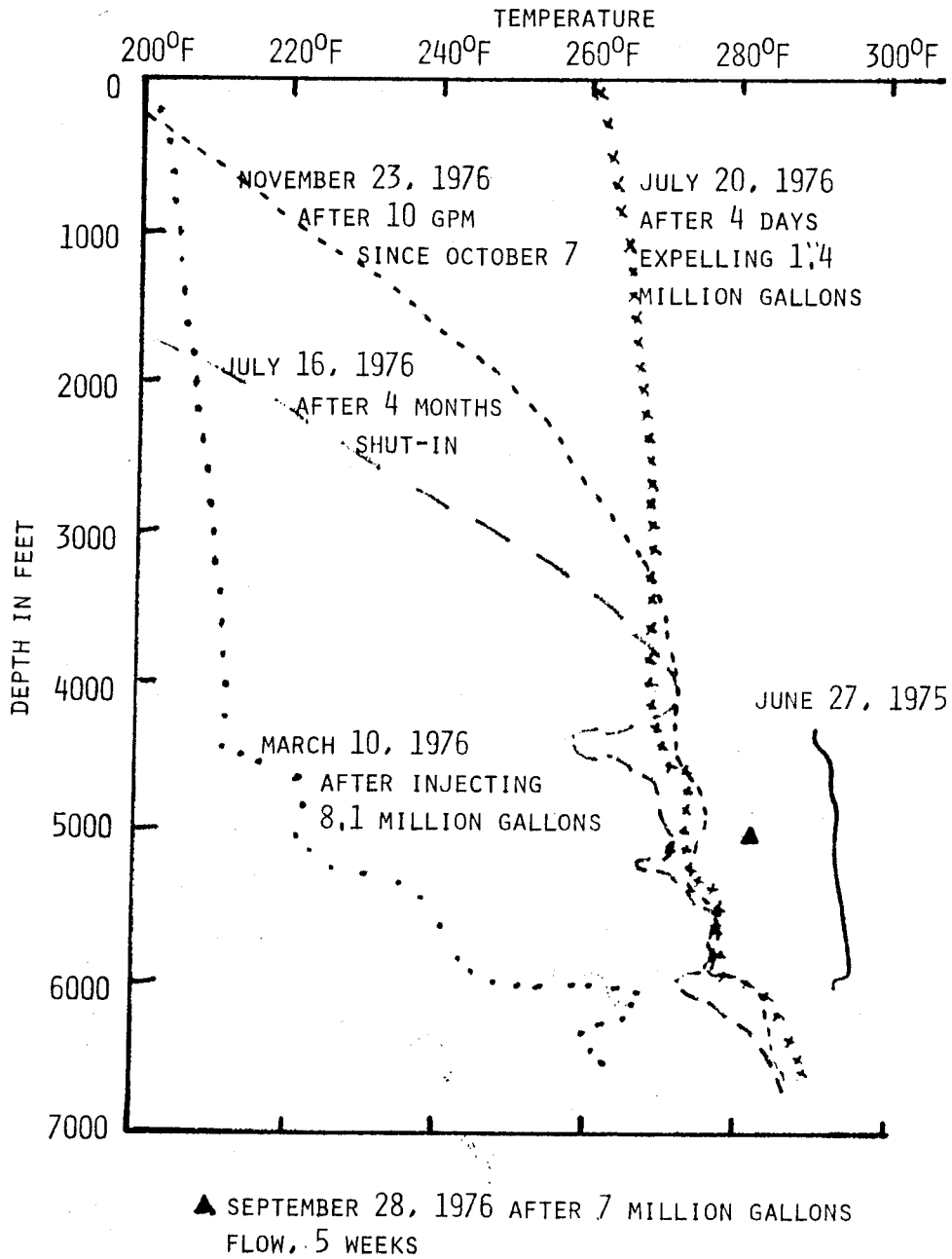
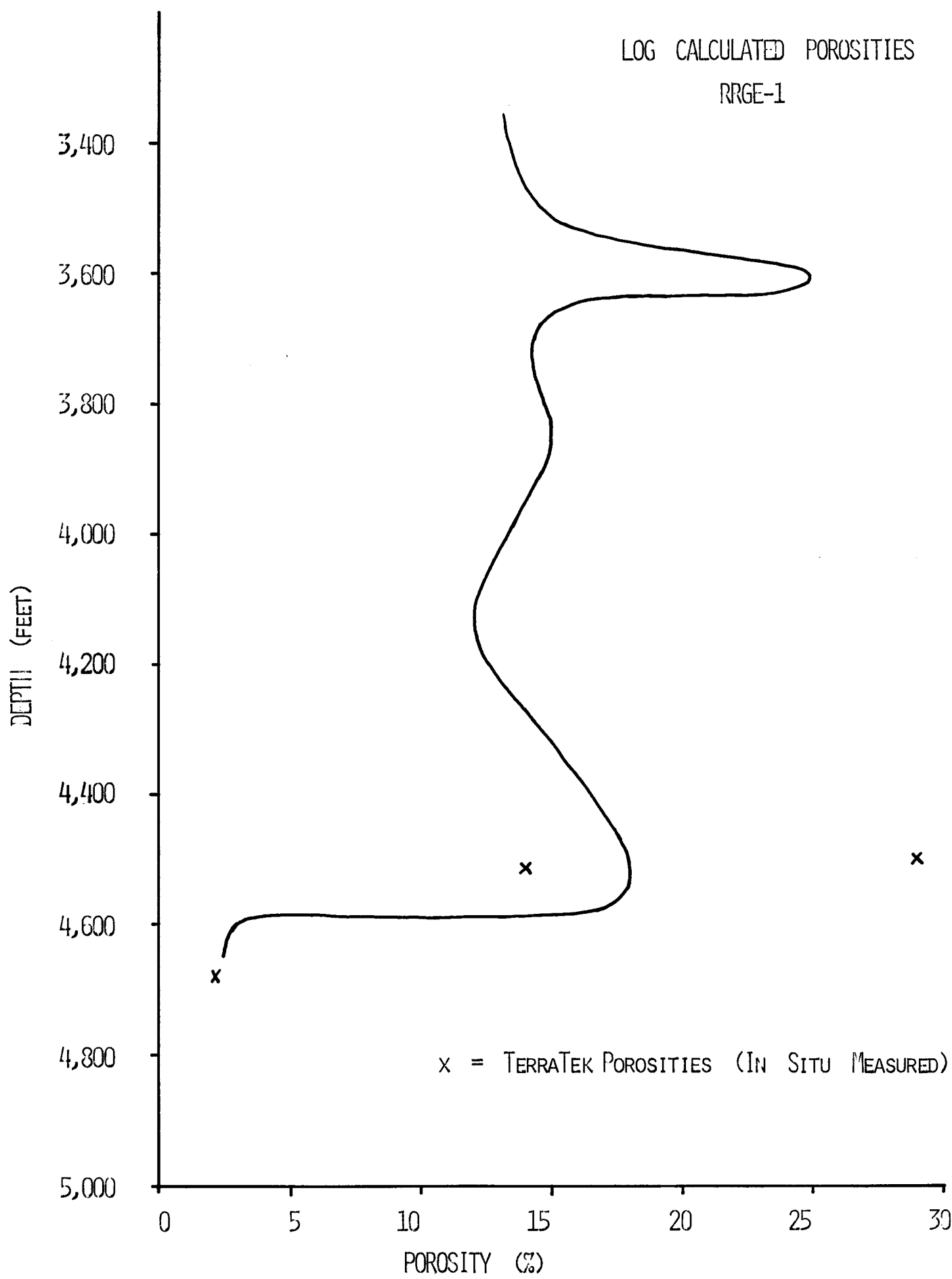


Fig. 7 Flow history of RRGE-2 since conclusion of the re-injection experiments in March 1976

WELL	ROCK TYPE	SAMPLE DEPTH	WET BULK DENSITY (GM/CC)	DRY BULK DENSITY (GM/CC)	GRAIN DENSITY (GM/CC)	TOTAL POROSITY (%)	EFF WATER POROSITY (%)	PERM-EABILITY (MILLIDARC)
RRGE-1	Grn Tuff Siltstone	4500.5' (prod)	--	1.88	2.62	28.8	28.8	5.00
	Dk Gray Mica Slts	4518.0'	--	2.20	2.67	.7.6	14.3	
	Phyllite	4687.0'	--	2.73	2.79	2.2	0.8	
RRGE-2	Gray Siltstone	3728.4'	--	2.16	2.66	18.8	13.2	
	Gray Siltstone	4223.8'	--	2.07	2.66	22.2	15.0	
	Gray Siltstone	4227.0' (cased)	2.29	2.20	2.72	19.3	17.4	0.040
	Cal Tuff Siltstone	4373.0' (prod)	--	2.28	2.67	14.5	13.6	
	Quartz Monzonite	6500.0'	--	2.57	2.64	2.7	0.8	
RRGE-3A	Grn Sandstone-Slts (L)	3365.0' (cased)	--	1.74	2.60	33.1	11.3	0.040
	Grn Tuff Siltstone (U)	3365.0' (cased)	--	1.53	2.48	38.3	34.7	3.400
RRGE-3C	Gry Silty Shale (fractured)	4994.0' (prod)	--	2.31	2.70	14.4	9.1	0.001
	Gry Slst (fractured)	5273.0' (prod)	--	1.97	2.66	25.9	23.0	0.044
	Quart w/ Schist lam	5550.5'	--	2.64	2.70	2.2	1.2	

CORED SAMPLE PHYSICAL PROPERTIES

LOG CALCULATED POROSITIES
RRGE-1



x = TERRATEK POROSITIES (IN SITU MEASURED)

RAFT RIVER WELLS PRODUCTION ZONES

	<u>MINOR</u>	<u>MAJOR</u>	<u>TOTAL EFFECTIVE (100% MAJOR; 25% MINOR)</u>
RRGE-1	3,800 - 4,250		APPROXIMATELY 550
	4,650 - 4,800	4,250 - 4,650	
RRGE-2		4,300 - 4,575	APPROXIMATELY 650
	4,850 - 5,000	5,175 - 5,300	
	5,300 - 5,500	5,930 - 6,100	
RRGE-3	4,400 - 4,600		APPROXIMATELY 425
		4,650 - 4,850	
	4,850 - 5,100	5,400 - 5,500	

2.6.2 Pump Tests and Well Interaction Studies

Analysis was completed on the pumping tests (work performed under Subcontract by the Idaho Bureau of Mines and Geology). They were conducted on two privately owned irrigation wells (See Figure 5) in the immediate vicinity of the deep test hole location. Both wells are approximately 200 ft deep, 18 inches in diameter with perforated casing and have a free water surface (water table) located at a depth of 30 ft. One well was pumped at 1600 gpm and data were taken at 5 observation points. The other well was pumped at 1200 gpm and data were taken at two observation points. Both wells exhibited a drawdown of approximately 6 ft during pumping. The second test was aborted part way through by power failure.

The data were used in a two dimensional ground water computer code using the "Theis" equations and both transmissibility and reservoir storage coefficient were calculated. The equation is:

$$TV^2h = S\frac{2h}{2t} + Q/A$$

Where T represents the transmissivity coefficient in $\frac{L^2}{t}$

S is storage coefficient, dimensionless

Q the well discharge (or reinjection rate in L^3/t)

h is the head above a given data plane

The solution for T gave values in the range of 2.2×10^5 gal/day/ft and for S approximately 1.7×10^{-3} .