

# OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

```

ITER  FUNCTION  TRANSMISS  STORTIVTY  SPEC_LEAK
  1  .920E-02  1891.      .6657E-04  .6043E-04
    
```

TERMINATION DUE TO PARAMETER CONVERGENCE

## FINAL RESULTS

```

ITER  FUNCTION  TRANSMISS  STORTIVTY  SPEC_LEAK
  1  .920E-02  1891.      .6659E-04  .6043E-04
    
```

FRACTIONAL COMPONENTS OF FUNCTION VALUE

```

WELL #      1
        1.000
    
```

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

## SENSITIVITY ANALYSIS

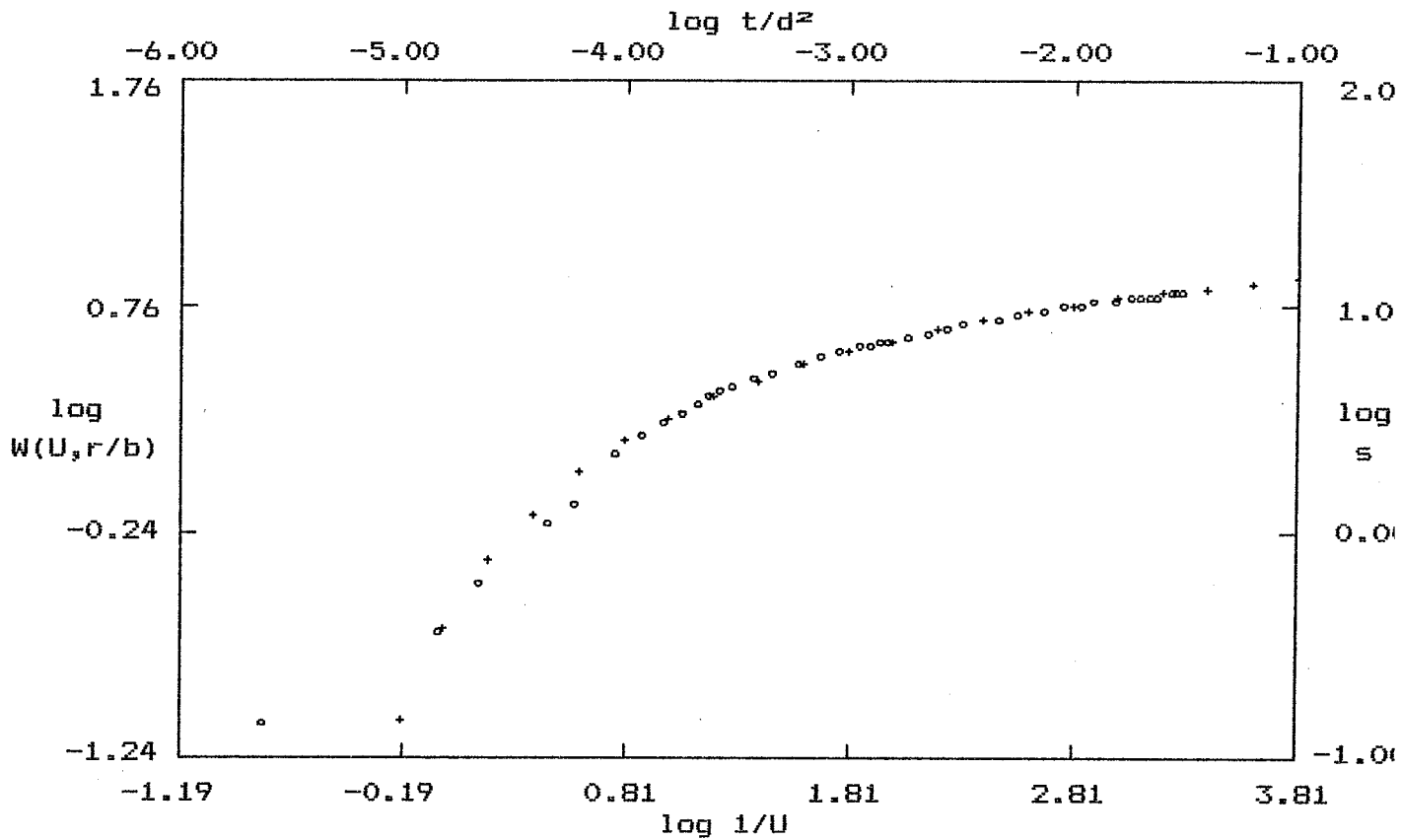
### TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	1891.	1889.	1893.
STORTIVTY	.6659E-04	0.0000	0.1453E-03
SPEC_LEAK	.6048E-04	0.0000	0.3858E-03

TO CONTINUE ENTER "RETURN"

*K<sub>ms</sub>*  
 $T = 14,145 \text{ gpd/ft}$   
 $S = 6.66 \times 10^{-5}$   
 $K'_h = 6.04 \times 10^{-5} \text{ day}^{-1}$

# PUMP TEST DATA



o - Data

+ - Type Curve

Confined Leaky:  $r/B = 0.02$

## SOLUTION

Transmissivity =  $1.284E+00$  ft.<sup>2</sup>/min. = 13,852 gpd/ft

Storativity =  $7.964E-05$

*Kuwait (HM 70)*