



Golder Associates
CONSULTING GEOTECHNICAL ENGINEERS

30 L 14 - 02 2b
GEOCRES No.

W073-11026 C

w.p. 240-66

MINISTRY OF TRANSPORTATION
AND COMMUNICATIONS

PERMANENT DEWATERING SYSTEM
ACIDIZING OF WELLS AND ADDITIONAL
TEST HOLES

EAST MAIN STREET TUNNEL
WELLAND *W.O. 73-11026 C* ONTARIO

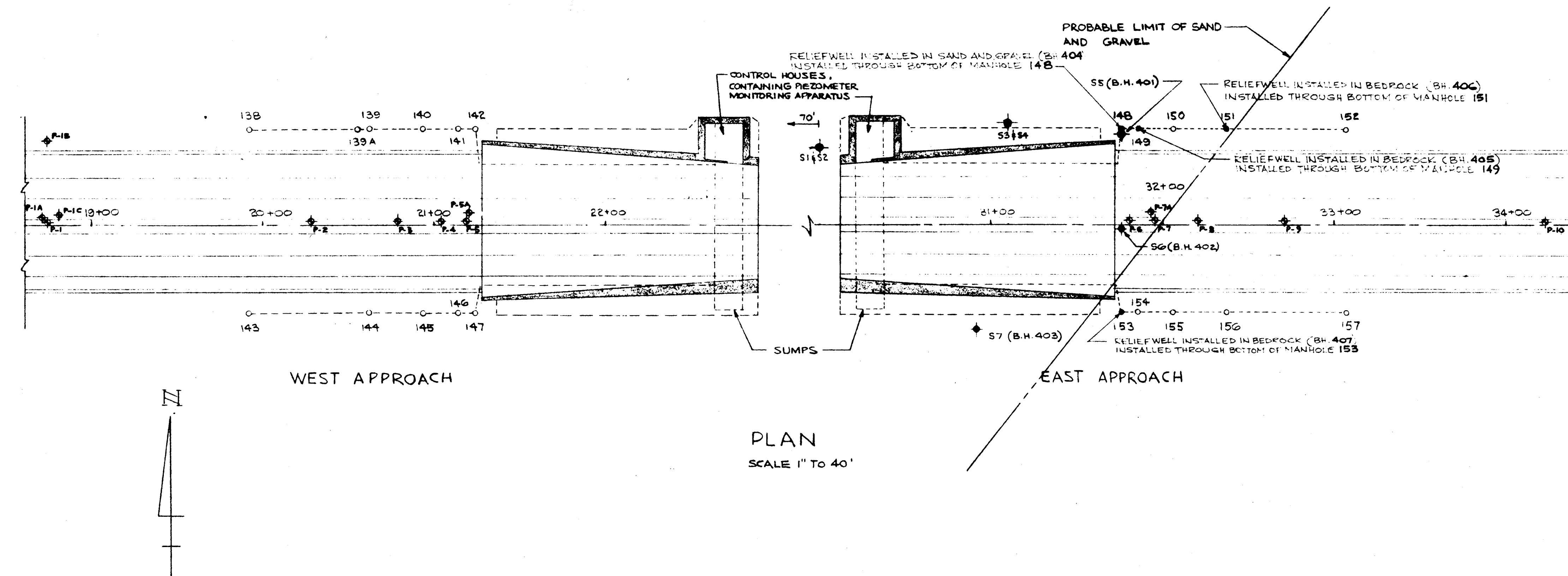
Distribution:

8 copies - Ministry of Transportation & Communications
TORONTO, Ontario

2 copies - H.Q. Golder and Associates Ltd.
MISSISSAUGA, Ontario

June, 1973

73086



LEGEND

- ◆ PERMANENT MONITORING PIEZOMETER LOCATION
- ◆ SUPPLEMENTARY PIEZOMETER LOCATION
- PERMANENT RELIEF WELL LOCATION

NOTE:

P-1, P-1A, P-1B DESTROYED; P-1C REPLACES P-1
P-5 DESTROYED; P-5A REPLACES P-5
P-7 DESTROYED; P-7A REPLACES P-7

Date JUNE 26, 1972

Golder Associates

Drawn *[Signature]*
Checked *[Signature]*
App'd *[Signature]*

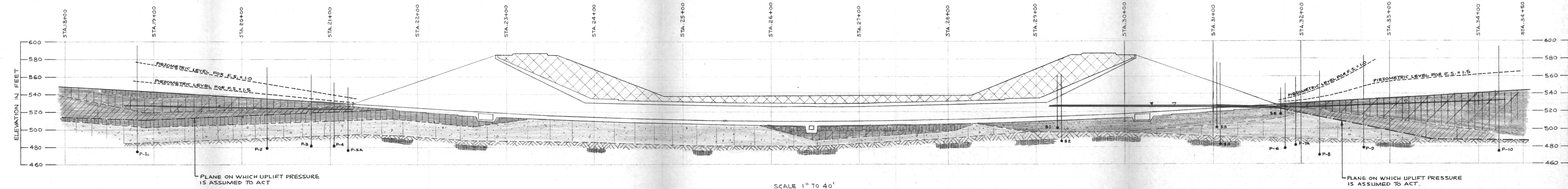
JUNE 15, 1973

STRATIGRAPHY

- EMBANKMENT FILL
- CLAYEY SILT
- SILT TO SILTY SAND
- LAYERED SILTY CLAY
- SANDY SILT TO SILTY SAND (TILL)
- SAND AND GRAVEL (LENS WITHIN TILL)
- WEATHERED AND FRACTURED BEDROCK
- FAIRLY SOUND TO SOUND BEDROCK

LEGEND

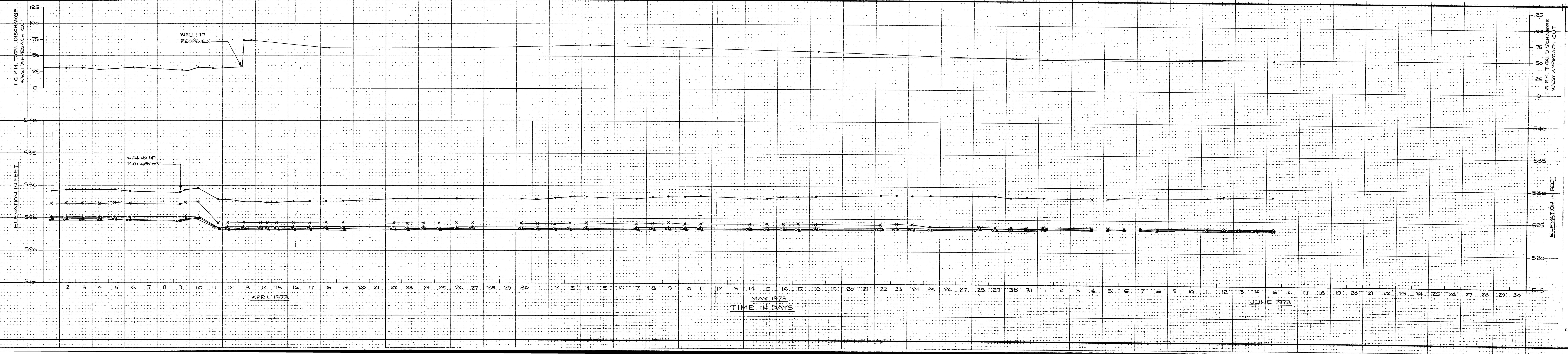
- AVERAGE PIEZOMETRIC LEVEL IN BEDROCK, JUNE 15, 1973
- AVERAGE PIEZOMETRIC LEVEL IN SAND & GRAVEL, JUNE 15, 1973
- PIEZOMETER IN ELEVATION



Date JUNE 15, 1973

Golder Associates

Drawn
Chkd.
Appd.

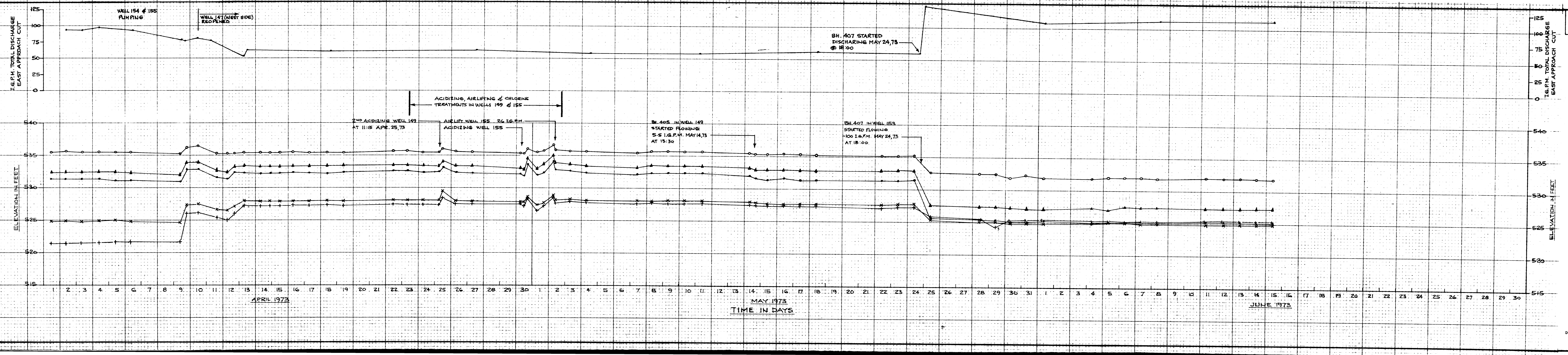


RECORD OF PIEZOMETER READINGS
WEST APPROACH CUT
APRIL 1, 1973 TO JUNE 30, 1973

FIGURE 3

LEGEND

SYMBOL	PIEZOMETER
—●—	P-1
—x—	P-2
—+—	P-3
—▲—	P-4
—○—	P-5



RECORD OF PIEZOMETER READINGS
EAST APPROACH CUT
APRIL 1, 1973 TO JUNE 30, 1973

FIGURE 4

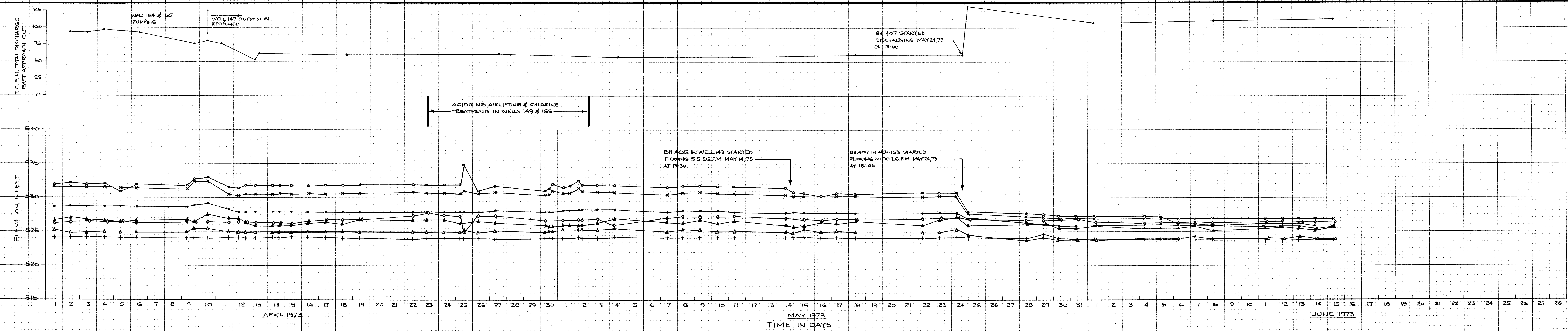
LEGEND

SYMBOL	PIEZOMETER
—●—	P-6
—x—	P-7
—+—	P-8
—▲—	P-9
—◊—	P-10

Date JUNE 1, 1973

Golder Associates

Drawn A.H.T.
Checked
Approved

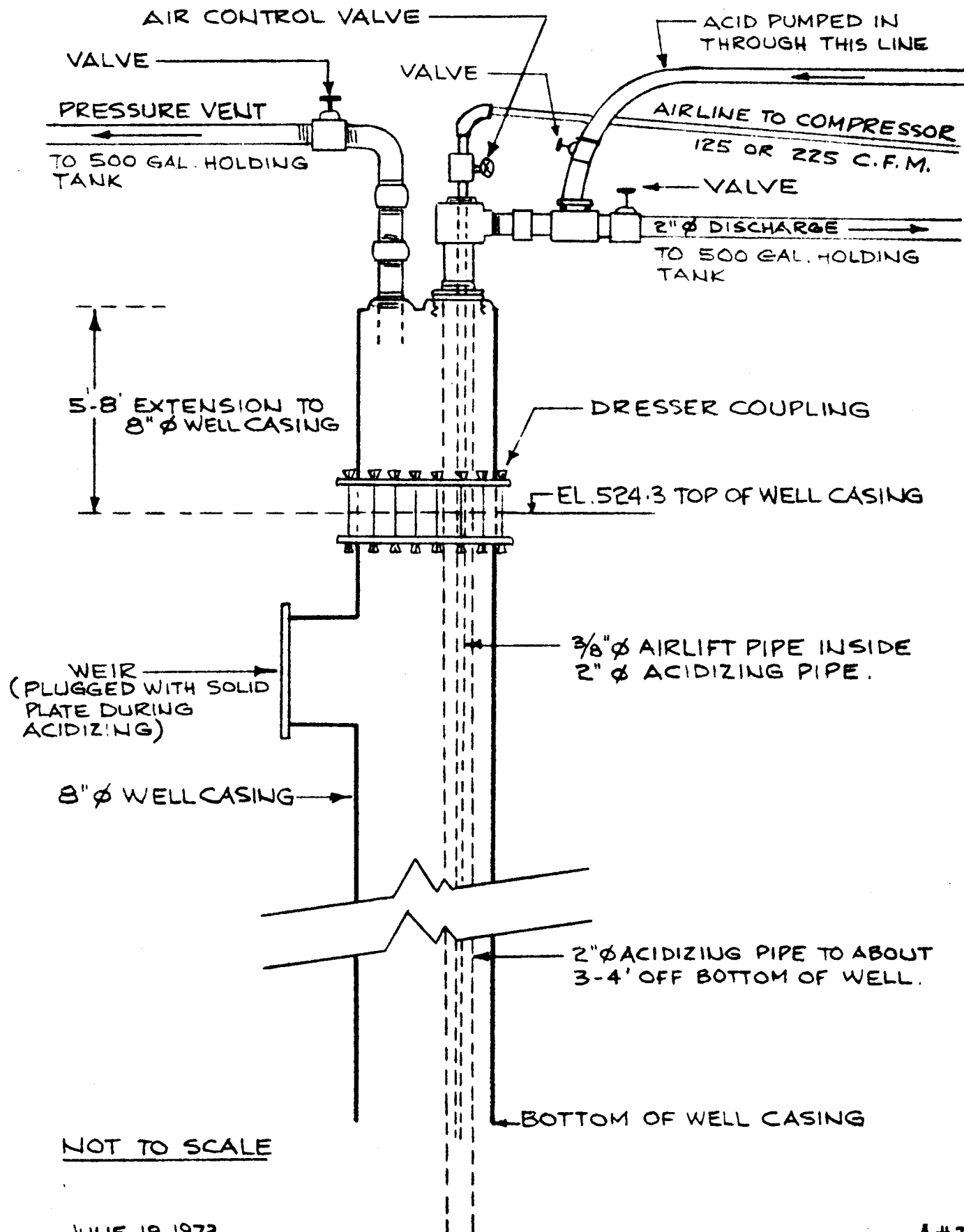


LEGEND

SYMBOL	PIEZOMETER
●	S-1
x	S-2
▲	S-3
○	S-4
+	S-5
△	S-6
◇	S-7

DETAILS OF WELLHEAD ACIDIZING OF GRAVITY RELIEFWELL

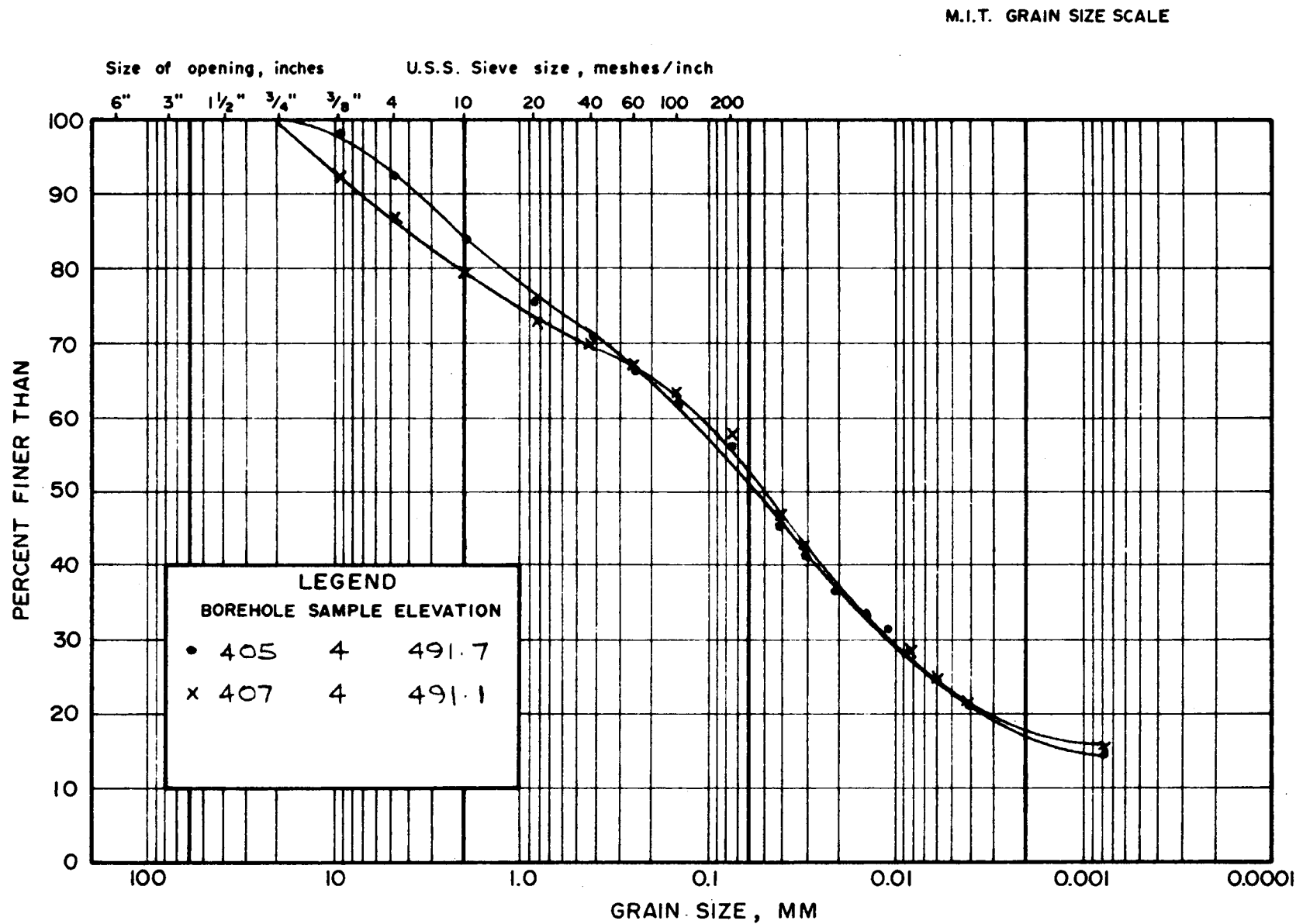
FIGURE 6



Date JUNE 18, 1973

Golder Associates

Drawn A.H.T.
Chkd. *[Signature]*
Appd. *[Signature]*



COBBLE SIZE	COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE	SILT SIZE		CLAY SIZE
	GRAVEL SIZE			SAND SIZE			FINE GRAINED		

GRAIN SIZE DISTRIBUTION
CLAYEY SILT TILL

FIGURE 7