

1506-00101

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GROUNDWATER INVESTIGATION

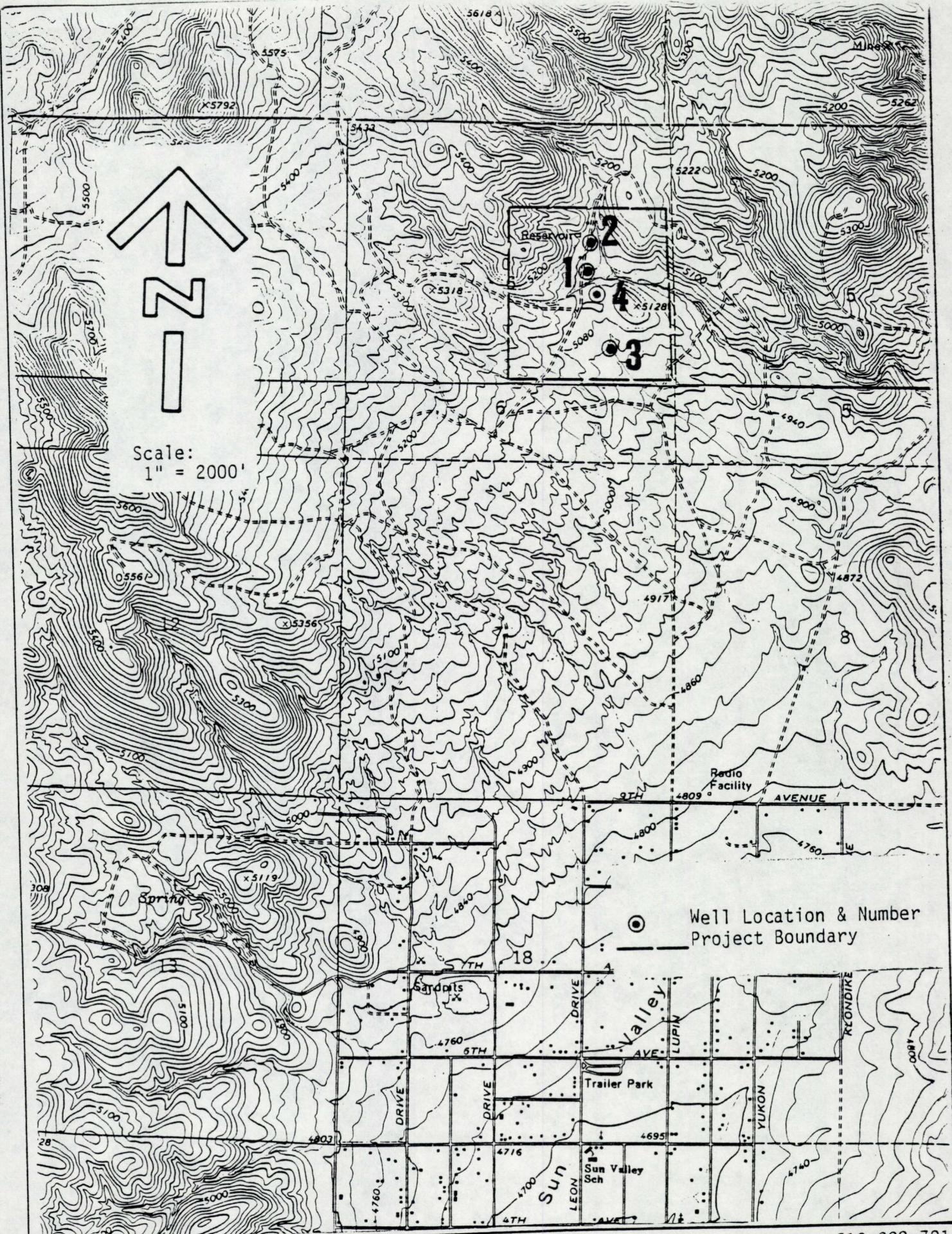
WITT PROPERTY

SECTION 6, TOWNSHIP 20 NORTH, RANGE 20 EAST

WASHOE COUNTY, NEVADA



SPARKS, NEVADA
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sea
ENGINEERS/PLANNERS

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SEATTLE, WASHINGTON

WELL LOCATIONS, WITT PROPERTY

Section 6, Township 20N, Range 20E

PROJECT NO. 513-002-791
FIGURE 1
PAGE

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GROUNDWATER INVESTIGATION

WITT PROPERTY

SECTION 6, TOWNSHIP 20 NORTH, RANGE 20 EAST

WASHOE COUNTY, NEVADA

I. INTRODUCTION

This report documents the findings from a groundwater study conducted on a 165-acre parcel located in the west half of Section 6, Township 20 North, Range 20 East, MDM. A summary of drilling and test pumping results determined from the study is included.

II. STUDY AREA AND PROJECT DEVELOPMENT

Plate 1 outlines the project property and shows its location with respect to neighboring landmarks. The project site lies within the Spanish Springs Valley hydrographic area, approximately one-half mile north of the topographic boundary with Sun Valley. The northern most extent of residential development in Sun Valley also lies about one-half mile south, close to the common hydrographic border.

Tentative plans call for the development of a mobile home subdivision. The proposed means of water supply is a community system fed by a series of groundwater wells.

To meet the intended water needs, Witt Property has applied to the State of Nevada for permission to withdraw water from three wells. The submitted applications, under Serial Numbers 42884, 42885, and 42886, are a request to change the point of diversion for three existing permits in the valley floor portion of Spanish Springs Valley. The amount of flow applied for at each well is 0.5 cubic feet per second (cfs).

Test wells were drilled at three sites on the project property

in the late summer of 1981. A fourth site was drilled in Spring, 1982. The locations of the wells are shown in Plate 1. For convenience, they have been labeled as Wells 1, 2, 3, and 4, in order in which they were drilled.

III. GEOLOGY

Geologic maps of the area indicate that the Witt property is located in an area of deeply weathered plutonic rocks (1). The principal rock types are monzonites and granodiorites of Mesozoic Age. Weathering has produced a thick sequence of interbedded clays, sands, gravels, and occasional boulders. The coarse materials provide a potential groundwater source.

The deeper, unweathered rocks have been faulted and fractured in the project area. These fractures provide another potential groundwater source.

IV. TEST DRILLING

The initial intent of drilling the test wells was to gather geologic information for the project site and to develop preliminary assessments of groundwater availability. A summary of the well depths and static water levels is given in Table 1. Driller's reports are presented in Appendix A.

The drilling contractor is Burroughs of Nevada. The cable tool method was applied.

From the Driller's Logs in Appendix A, the materials encountered consist of unconsolidated materials interbedded with rock. The alluvial materials are comprised of sands, silts and clays, the apparent weathering products of the predominant plutonic rocks of the region.

Much of the strata encountered appears to consist of friable

or broken rock, which can potentially exhibit moderate to high hydraulic conductivities.

TABLE 1 - TEST WELL SUMMARY

<u>Well Number</u>	<u>Total Depth (feet)</u>	<u>Static Water Level (feet)</u>
1	355	96.0
2	405	21.0
3	620	93.7
4	414	97.75

V. TEST PUMPING RESULTS

A chronological summary of pump tests on the Witt project wells follows.

A. WELL NO. 3

A 72-hour step-drawdown test was conducted on Well Number 3 from September 21 through 24, 1981. Drawdown readings were taken by electric sounder, while discharge was monitored by flow meter. Test pumping equipment consisted of 30 horsepower submersible pump set at a depth of 320 feet. No observation wells were available for monitoring. Prior to the test start, static water level was recorded at 93.7 feet below ground surface.

The pump rate was maintained from 100 to 96 gallons per minute (gpm) for the initial 50 hours, at which time a quasi-steady state condition had been reached. During the final 22 hours, the mean discharge rate was 118 gpm. Although unsteady state conditions prevailed at the end of the first and second steps, the rate of drop in pumping level was slight. A tabular summary of test pumping data is given in Table 2. A graphical depiction of the drawdown data is presented in Plate B-1 of Appendix B.

TABLE 2 - SUMMARY OF DATA FROM PUMP TEST ON WELL NO. 3

Static Water Level = 93.7 feet

<u>Step</u>	<u>Length (hours)</u>	<u>Discharge (gpm)</u>	<u>Drawdown (feet)</u>
1	50	96	156
2	22	118	220

In early October, the pump was lowered to 420 feet and attempts were made by the drilling contractor to further develop the well and collect additional test data. The water level prior to starting the pump was 103 feet below the ground surface. During the initial pumping period, the meter was removed from the pump to allow higher pump rates. After 23 hours of pumping, the water level was 395.9 feet below ground surface. Discharge was not measured. However, according to manufacturer's pump data, the discharge from this level can be as great as 200 gallons per minute. The meter was then re-installed on the pump and the well was pumped at a rate of 125 gpm for about 11 hours. The pumping level stabilized at 352.7 feet below ground level within 5 hours.

Standard techniques of aquifer analysis are applicable only when the aquifers are fully saturated (2,4). Hence, in this case, they only apply during the very early time of the test, i.e. when drawdown is less than about 15 feet. When drawdown exceeds 15 feet, the upper water bearing zones are dewatered. The Jacob's method was applied to the early time test data. Based on this analysis, a transmissivity (T) value of 3,000 gallons per day per foot (gpd/ft) was calculated. Plate B-2 of Appendix B shows this data. A storage coefficient (S) of 5×10^{-4} was estimated from the total thickness of the water bearing zones (5).

The effect of dewatering the aquifer is similar to that produced by a boundary. That is, the slope of the time-drawdown graph becomes much steeper, as Plate B-2 shows. In order to evaluate the well's capability, it was necessary to incorporate the effects of dewatering the upper zones in the well's efficiency. The efficiency was calculated according to documented techniques (4). The increased drawdown values resulting from dewatering are reflected in lower well efficiency values. These well efficiency values, in conjunction with the transmissivity and storage coefficient values stated earlier, can be used to evaluate the well's capabilities. For 150 gpm, the well efficiency is about twenty-eight percent (28%). Based on this information, Well Number 3 appears capable of pumping at a rate of 150 gpm for periods of 12 to 18 hours without drawing the water level to dangerously low levels.

B. Well No. 1

Two pumping tests have been conducted on Well No. 1 on the Witt project site. The first test was conducted on February 18, 19, and 20 of 1982, with recovery being monitored over the next several days. The second test was conducted on March 8 and 9, 1982. The test pump was a 30HP submersible set at a depth of about 335 feet. An earlier test hole about 11 feet from the pumping well was utilized as an observation well. A summary of information from the tests is shown in Tables 3 and 4.

The first test was conducted at a mean pump rate of about 200 gpm over 72 hours. The transmissivity as determined from this test is shown in Table 4. Due to the slow recovery rate of the well, it was advised that the pumping rate in Well No. 1 be restricted and a third

production well be constructed.

The second test was scheduled for 24 hours. The pump rate was 150 gpm. However, after about 16.5 hours, the generator malfunctioned and was off for about 4.5 hours. Pumping was resumed for the last 3 hours at 140 gpm. Due to this problem, only data from the first 16 hours was used in determining aquifer parameters from time versus drawdown plots. Various methods of analysis were utilized. The results from this test are shown in Table 4. Time versus drawdown plots from these tests are presented in Plates B-3 and B-4 of Appendix B.

TABLE 3 - SUMMARY OF TESTS ON WELL NO. 1

<u>Test</u>	<u>Static Water Level Feet</u>	<u>Length, Hour</u>	<u>Discharge, GPM</u>	<u>Draw- down, Feet</u>
1	103.1*	72	200	206
2	156.5*	16	150	86.5

*Water level prior to start of test. Assumed to be static level for computational purposes.

TABLE 4 - TRANSMISSIVITY VALUES FOR WELL NO. 1, GPD/FT

<u>Test</u>	<u>Stallman Observation Well</u>	<u>Jacobs Observation Well</u>	<u>Jacobs Pumping Well</u>	<u>Theis Recovery Pumping Well</u>
1	1300	1500	1900	5300
2	1560	9200	5100	-

The observation well data did not yield realistic values for storage coefficient, possibly due to dewatering of its upper aquifers. Due to the confined or semi-confined nature of the aquifers, the storage coefficient was estimated to be 3×10^{-4} . Based on the data in Table 4, the transmissivity appears to be about 2,800 gpd/ft.

Because of the incomplete and slow recovery in addition to

dewatering of upper aquifers, the pump rate in Well No. 1 should be restricted to 135 gpm over a maximum of a 16-hour pumping day. Also, the static water level should be regularly monitored and the pump rate adjusted if need be.

C. WELL NO. 4

A 48-hour constant discharge test was conducted on Well No. 4 on June 17 and 18, 1982. The mean pump rate was about 34 gpm. As shown in Plate B-5, the Jacob's method was used to analyze the data. A transmissivity value of 900/gpd/ft was computed for this well. A storage coefficient of 3×10^{-4} appears reasonable for this well.

D. WELL NO. 2

Well No. 2 appears to have very limited capacity, i.e. no more than 20gpm. Hence, test results for this well are not included.

VI. WATER QUALITY

Two water samples were collected from each well for chemical analyses. The results from the analyses are shown in Appendix C, Plates C-1 through C-9.

Two additional samples were collected from Well No. 1 during subsequent developmental work. These samples were analyzed for iron and maganese. The initial samples from Well No. 1 and met the quality standards of the state. However, the twenty-four hour samples in the second set of samples showed an excessive amount of iron (see Plate C-3. The forty-eight hour sample was again within State standards (see Plate C-4).

It should be noted that the samples from Well No. 4 were quite turbid and were passed through a coarse filter before they were submitted for analyses. It is, therefore, recommended that additional

samples be submitted for analyses when a permanent pump is installed on this well.

VII. WELL CAPACITIES

Based on the test results, the following pump rates are suggested for the principal wells:

<u>Well</u>	<u>Pumping Rate, gpm</u>
1	135
2	minimal
3	160
4	<u>40</u>
Total	335

It is recommended that the wells be pumped for not more than 16 hours per day, allowing 8 hours of recovery time.

VIII. SUMMARY AND CONCLUSIONS

Four wells have been constructed on the Witt project site, north of Sun Valley. The material encountered generally consists of interbedded clays, sands and gravels.

Pumping test on the wells indicate transmissivity values on the order of 3000gpm/ft. Storage coefficients of 3×10^{-4} to 5×10^{-4} were estimated for the region. The wells appear capable of producing approximately 335 gpm over a 16 hour pumping day.

BIBLIOGRAPHY

1. Bonham, H.F. and E.C. Bingler, "Geologic Map, Reno Folio", Nevada Bureau of Mines and Geology, Reno, Nevada, 1973.
2. Johnson Division , VOP, "Ground Water and Wells", St. Paul, Minnesota, 1975.
3. Robinson, Thomas W. and David A. Phoenix, "Groundwater in Spanish Springs and Sun Valleys, Nevada", State of Nevada, Office of the State Engineer, 1948.
4. Todd, David K., "Groundwater Hydrology", John Wiley and Sons, New York, 1980.
5. Lohman, S.W., "Ground Water Hydraulics", USGS Professional Paper 708, Washington, D.C., 1972.

APPENDIX A
DRILLER'S REPORTS

WHITE--DIVISION OF WATER RESOURCES
CANARY--CLIENT'S COPY
PINK--WELL DRILLER'S COPY

STATE OF NEVADA
DIVISION OF WATER RESOURCES

WELL DRILLERS REPORT.

Please complete this form in its entirety.

OFFICE USE ONLY

Log No.

Permit No.

Buvin

1. OWNER Harry Williams / Witt Properties ADDRESS

2 LOCATION SE 1/4 NE 1/4 Sec 6 T 20 N 3 R 20 E Washoe County
PERMIT NO (NEV) 42885 (County) 1729

3. TYPE OF WORK	4. PROPOSED USE	5. TYPE WELL
New Well <input type="checkbox"/> Recondition <input type="checkbox"/>	Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/>	Cable <input type="checkbox"/> Rotary <input type="checkbox"/>
Deepen <input type="checkbox"/> Other <input type="checkbox"/>	Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/>	Other <input type="checkbox"/>

LITHOLOGIC LOG

Date started..... 19.....

Date completed _____, 19____

7. WELL TEST DATA

BAILER TEST

G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours

USE ADDITIONAL SHEETS IF NECESSARY

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WHITE—DIVISION OF WATER RESOURCES
CANARY—CLIENT'S COPY
PINK—WELL DRILLER'S COPY

**STATE OF NEVADA
DIVISION OF WATER RESOURCES**

WELL DRILLERS REPORT

Please complete this form in its entirety

OFFICE USE ONLY

Log No.

Permit No.

Bauhin.

2

1. OWNER Harry Williams /WILL Properties ADDRESS

2 LOCATION SE 1/4 NE 1/4 sec 6 T. 20 N/S R. 20 E. Wissahickon County
PERMIT NO. State - 42895 - County 1729

3. TYPE OF WORK		4. PROPOSED USE		5. TYPE WELL		
New Well	<input type="checkbox"/> Recondition	<input type="checkbox"/>	Domestic	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Test	<input type="checkbox"/>
Deepen	<input type="checkbox"/> Other	<input type="checkbox"/>	Municipal	<input type="checkbox"/> Industrial	<input type="checkbox"/> Stock	<input type="checkbox"/>

LITHOLOGIC LOG

Date started _____ 19_____
Date completed _____ 19_____

WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump
3600	23 (?)	771	48

BAILER TEST

G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours
G.P.M. _____ Draw down _____ feet _____ hours

USE ADDITIONAL SHEETS IF NECESSARY

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sec

DRTILLER'S REPORT - WELL NO. 2

FOUNDATION DIVISION SPARKS, NEVADA • SEATTLE, WASHINGTON • LAS VEGAS, NEVADA

PROJECT NO. 513-002-791

PLATE A-2

WHITE-DIVISION OF WATER RESOURCES
CANARY-CLIENT'S COPY
FINE-WELL DRILLER'S COPY

STATE OF NEVADA
DIVISION OF WATER RESOURCES

OFFICE USE ONLY

Log No.

Permit No.

Basin

WELL DRILLERS REPORT

Please complete this form in its entirety

OWNER: HARRY WILLIAMS / PROPERTY ADDRESS:

S. NE 1/4 and NW 1/4 Sec 6 T. 20N N/S R. 20E Washoe County
Z. LOCATION: 1/4 PERMIT NO.

3. TYPE OF WORK: 4. PROPOSED USE: 5. TYPE WELL:
New Well Domestic Irrigation Cable
Recondition Municipal Test Recovery
Deepen Other Industrial Stock Other

6. LITHOLOGIC LOG:

Material	Water Source	From	To	Thickness
Top Soil		0	3	3
Clay		3	55	52
Rock		55	110	55
Broken Rock, Coarse	X	110	120	10
Sand & Gravel		120	215	95
Gravel & Sand, im- bedded in Clay		215	260	45
Broken Rock, Boulders	X	260	275	15
Sand & Gravel		275	550	275
Mixture of Clay		550	578	28
Sand & Gravel		578	605	27
Broken Rock, Boulders	X	605	615	10
Sand & Gravel		615	620	5
Mixture of Clay		620	650	30
Sand & Gravel		650	678	28
* Drilled hole, sizes of bits used:				
13"		0 to 120'		
12"		120 to 340'		
10"		340 to 578'		
8"		578 to 605'		
6"		605 to 620'		

Date started: 19_____
Date completed: 19_____

WELL TEST DATA			
Pump RPM	G.P.M.	Draw Down	After Hours Pump

BAILER TEST			
G.P.M.		Draw down feet	hours
G.P.M.		Draw down feet	hours
G.P.M.		Draw down feet	hours

USE ADDITIONAL SHEETS IF NECESSARY

547L

WHITE—DIVISION OF WATER RESOURCES
CANARY—CLIENT'S COPY
PINK—WELL DRILLER'S COPY

**STATE OF NEVADA
DIVISION OF WATER RESOURCES**

WELL DRILLERS REPORT

OFFICE USE ONLY

Log No.

Permit No.

Barin

1. OWNER

10. The following table shows the number of hours worked by each employee in a company.

2 LOCATION 14 N 16 Sec 6 T N/S R E COUNTY
PERMIT NO. 114 114

卷之三

3.	TYPE OF WORK	4.	PROPOSED USE	5. TYPE WELL:
New Well	<input type="checkbox"/> Recondition <input type="checkbox"/>	Domestic	<input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/>	Cable <input type="checkbox"/> Rotary <input type="checkbox"/>
Deepen	<input type="checkbox"/> Other <input type="checkbox"/>	Municipal	<input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/>	Other <input type="checkbox"/>

LITHOLOGIC LOG

Date started..... 19.....

Date completed _____, 19____

7. WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump
3600	34(3)	398	48

BAILER TEST

G.P.M. Draw down feet hours
G.P.M. Draw down feet hours
G.P.M. Draw down feet hours

USE ADDITIONAL SHEETS IF NECESSARY

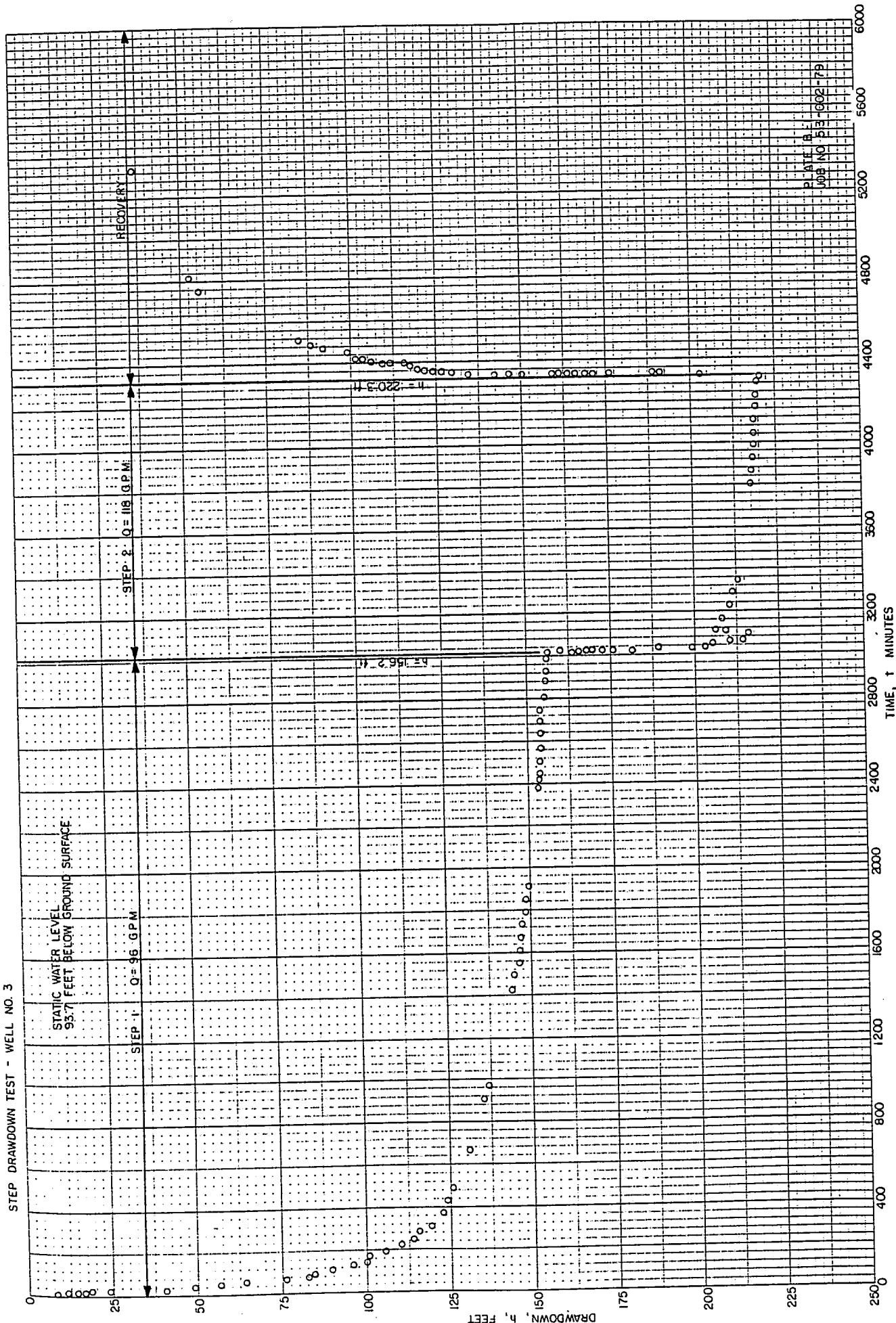
57

DRAILLER'S REPORT - WELL NO. 4

PROJECT NO. 513-002-791

APPENDIX B
TIME VERSUS DRAWDOWN GRAPHS

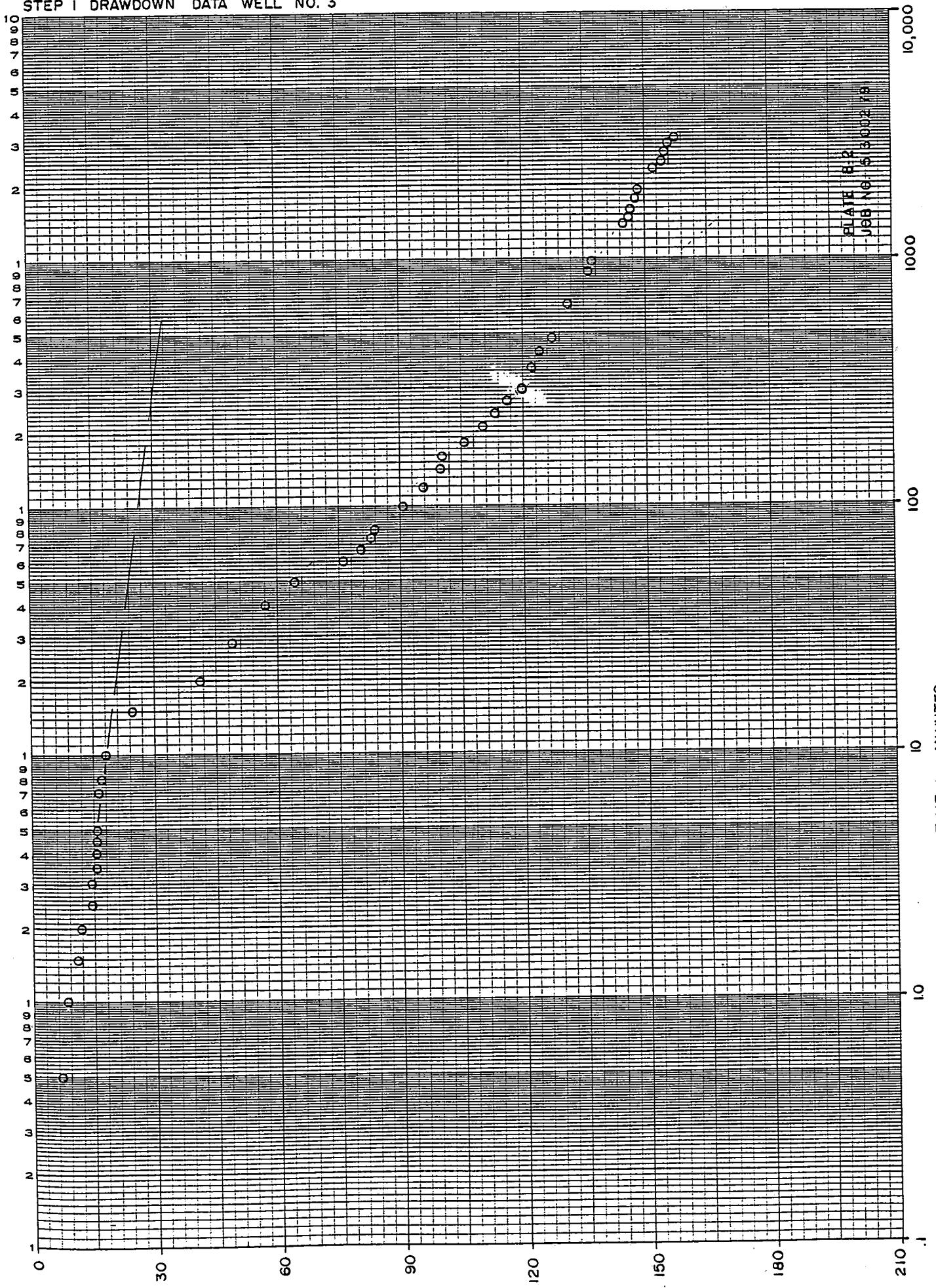
STEP DRAWDOWN TEST - WELL NO. 3



STEP I DRAWDOWN DATA WELL NO. 3

Molteno et al.

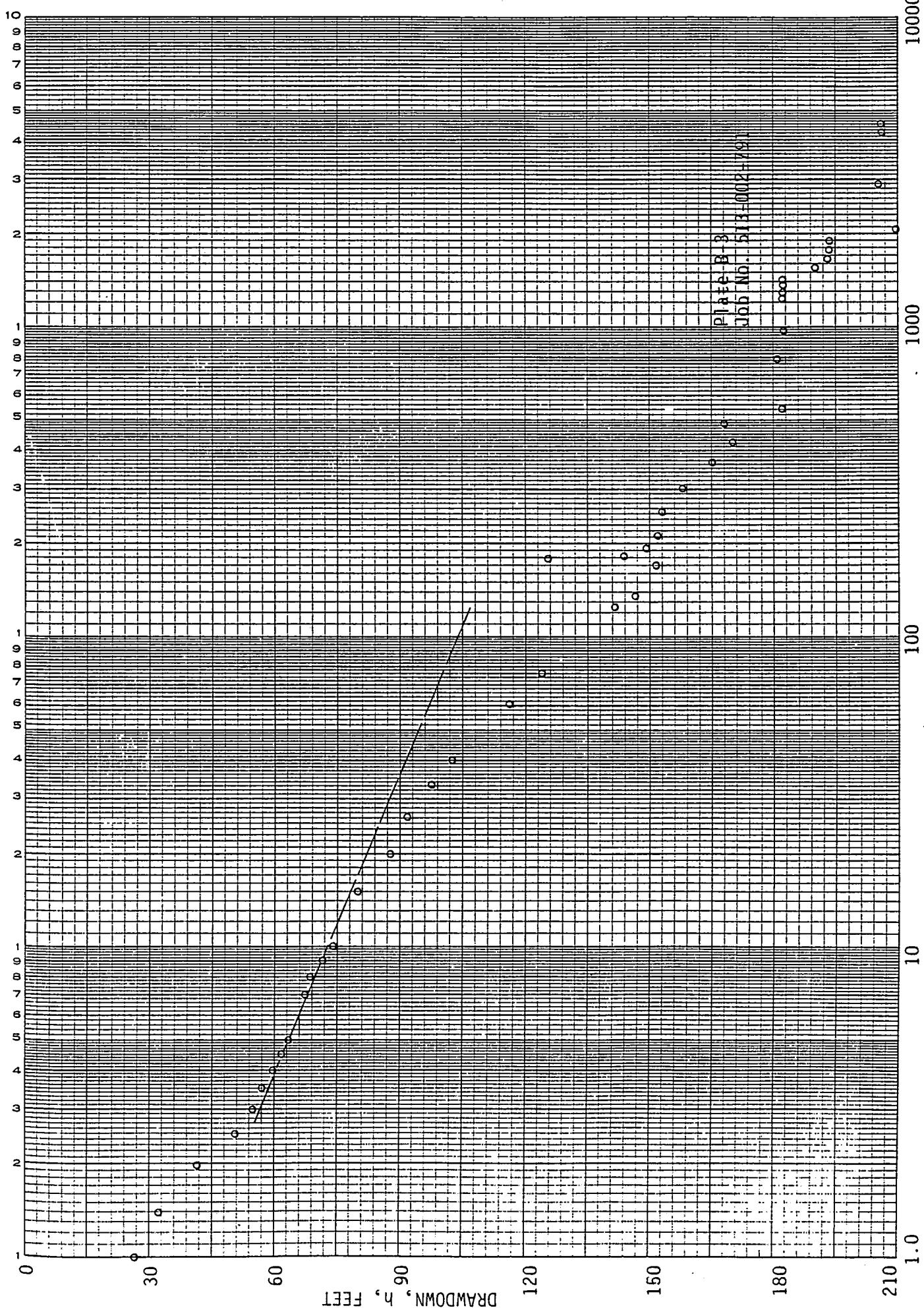
NO. 840-1010 DISTANCE DRAWING PAPER
16MM-1 DIVISIONS
5 CYCLES X 10 DIVISIONS PER INCH



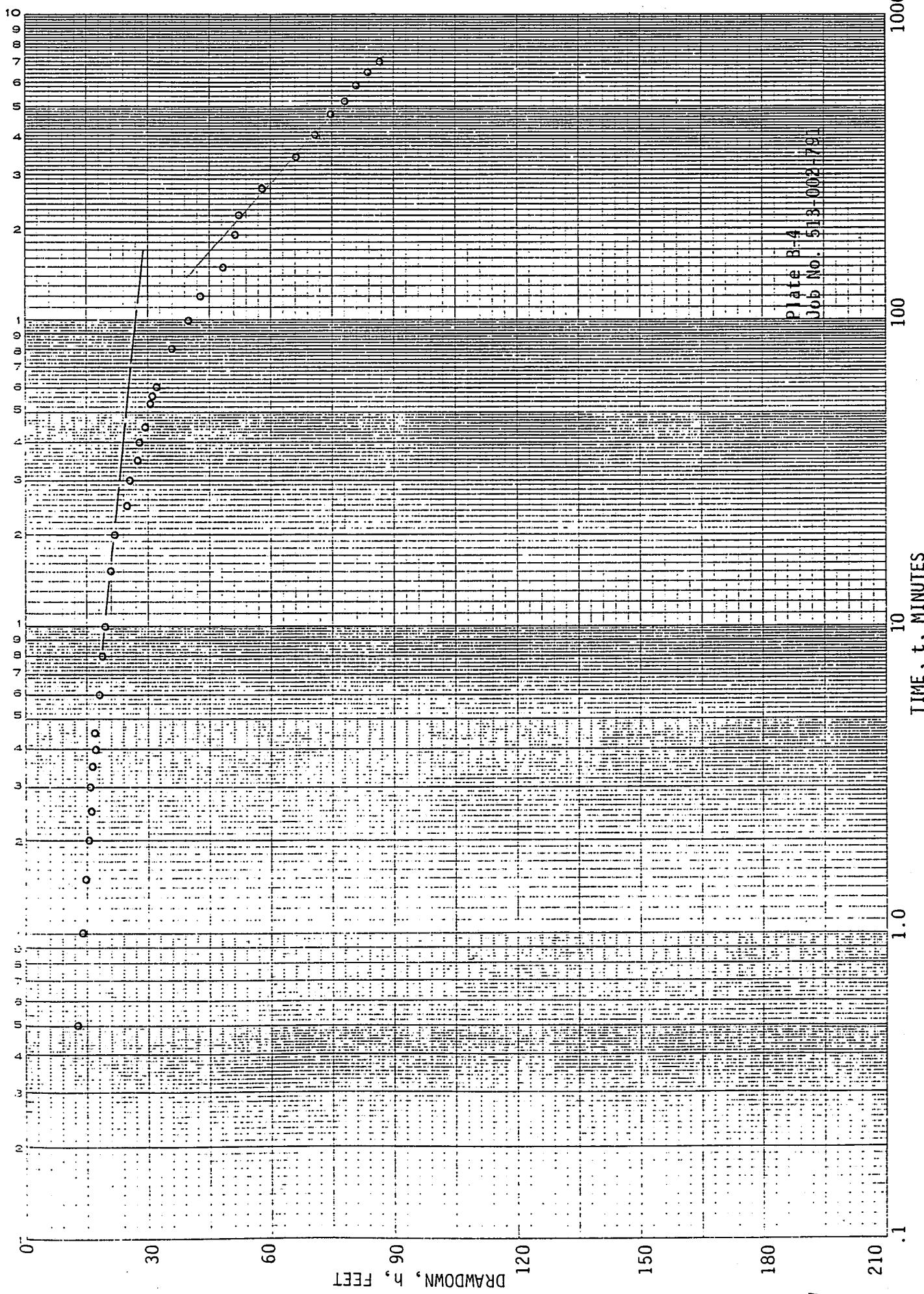
First Test, Well Number 1

MADE IN U.S.A.

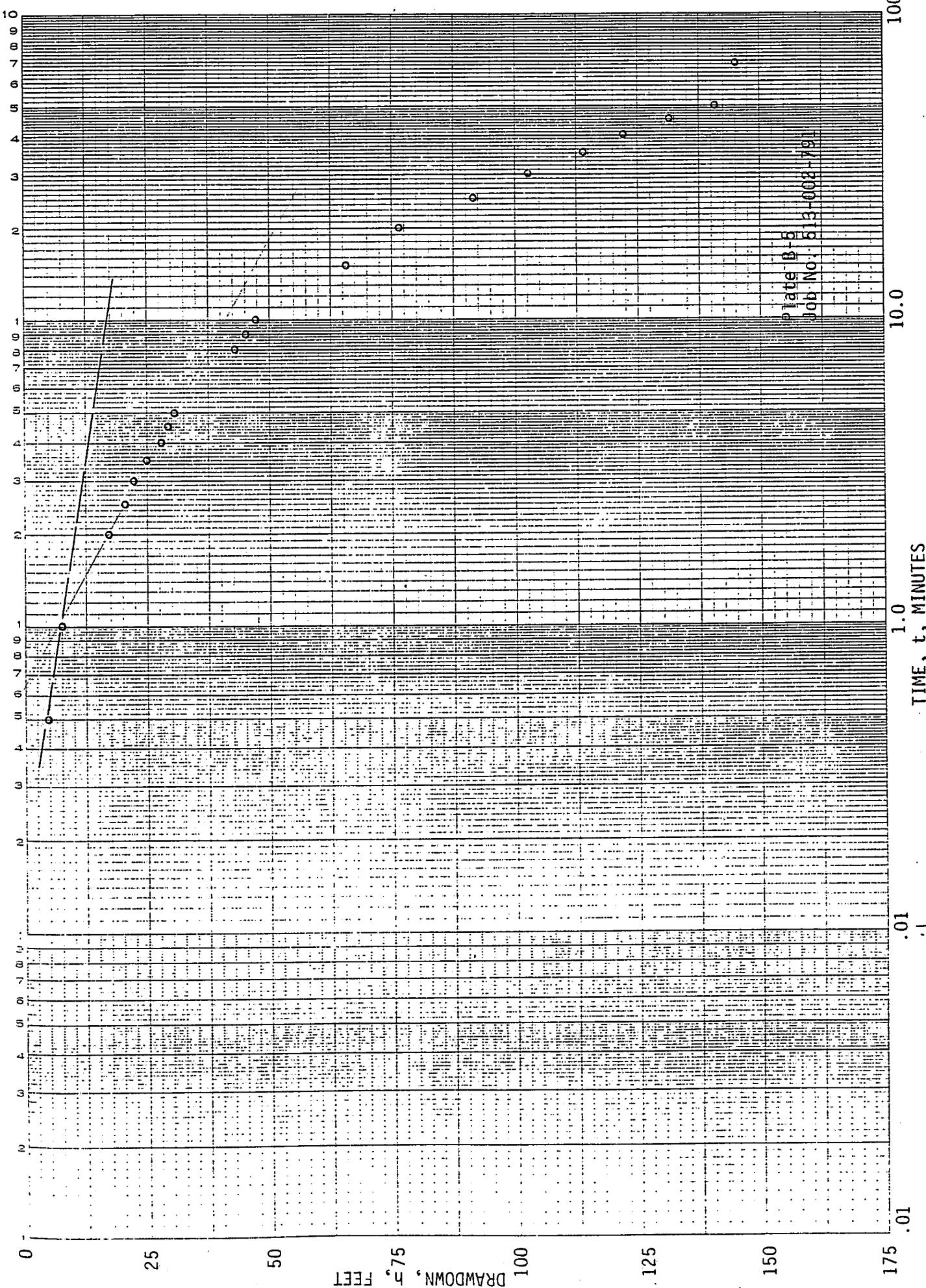
4 CYCLES X 10 DIVISIONS PER INCH



Second Test, Well Number 1



Well Number 4



APPENDIX C
WATER QUALITY ANALYSES



WATER QUALITY ANALYSIS - 48 HOUR - WELL NO. 1

SECOND ANALYSIS
FOUNDATION DIVISION SPARKS, NEVADA • SEATTLE, WASHINGTON • LAS VEGAS, NEVADAPROJECT NO. 513-002-791
PLATE C-4

IN TRIPLETTE (PLEASE PRINT) NEVADA STATE HEALTH LABORATORY 59959

(Rev. 7-40)

NEVADA DIVISION OF HEALTH

1660 N. Virginia Street

Reno, Nevada 89503

Information in box must be completed or analysis will not be performed.

County 20 N
Township 20 E
Range 32
Section 14
General location N. Seagull Valley

Source address

Date sampled 7-21-82 Date submitted 7-23-82

Owner KENT W. T. Owner phone no. 3795

Owner address P.O. Box 3795

Report to: LAS VEGAS Health Dept

Address Attn: Tech. Serv. BLDY 9, 1st fl., Rm 202 State & E. L.

CITY

ROUTINE DOMESTIC ANALYSIS
PLEASE CHECK BOXFOR PARTIAL ANALYSIS
CIRCLE CONSTITUENT DESIRED959 FOR CONSTITUENTS NOT LISTED BELOW PRINT IN
CONSTITUENT DESIRED IN SPACE BELOW

Constituent P.P.M. Constituent P.P.M. Constituent P.P.M. Constituent P.P.M.

T.D.S. @
103°C. Chloride Ion 0.47 Copper 0 0.01

Hardness 159 Nitrate Manganese 0.02 Zinc 0.03

Calcium 47 Alkalinity Color Barium 0.14

Magnesium 10 Bicarbonate Turbidity Boron 0.0

Sodium 47 Carbonate PH Silica 39

Potassium 5 Fluoride

Sulfate Arsenic

Remarks Previously analyzed

7-29-82

J.W.T.

IN TRIPPLICATE
(PLEASE PRINT)
WATER CHEMISTRY:

NEVADA STATE HEALTH LABORATORY
NEVADA DIVISION OF HEALTH
1660 N. Virginia Street
Reno, Nevada 89503

59625

Information in box must be completed or analysis will not be performed.

County	WASHOE
Township	T-2-N
Range	20-E
General location	Section 6 of See Valley
Source address	

Date sampled 7-1-82 Date submitted 7-7-82
 Owner Kent W. H. #2 Owner phone no. 323-3118 P.W.S.
 Owner address Box 325 Reno - NV 89505

Report to: W.C.H.D. - MTN. J. Cessary
 Name J. Cessary
 Address 94 Ave Wells
 City Reno
 State NV

WATER SOURCE:

Well

Spring

Surface

Hot

Cold

Depth

Casing diameter

In depth

Now in use

Yes No

24 QUOTINE DOMESTIC ANALYSIS PLEASE CHECK BOX 2246 <input checked="" type="checkbox"/>		FOR PARTIAL ANALYSIS CIRCLE CONSTITUENT DESIRED		825 FOR CONSTITUENTS NOT LISTED BELOW PRINT IN P.M. CONSTITUENT DESIRED IN SPACE BELOW	
Constituent	P.P.M.	Constituent	P.P.M.	Constituent	P.P.M.
T.D.S. @ G.G.C.	235	Chloride	10	Iron	0.16
Hardness	65	Nitrate	4.1	Manganese	0.07
Calcium	21	Alkalinity	118	Color	3
Magnesium	3	Bicarbonate	144	Turbidity	2.1
Sodium	42	Carbonate	0	p.H.	7.91
Potassium	5	Fluoride	0.12	Silica	62
Sulfate	15	Arsenic	0.000		
MBAS	< 0.1				

Remarks

7-14-82
JAN



WATER QUALITY ANALYSIS - 24 HOUR - WELL NO. 2

FOUNDATION DIVISION

SPARKS, NEVADA • SEATTLE, WASHINGTON • LAS VEGAS, NEVADA

PROJECT NO. 513-002-791
PLATE C-5

IN TRIPPLICATE
(PLEASE PRINT)

WATER CHEMISTRY

10 AM

BUREAU OF LABORATORIES AND RESEARCH

NEVADA DIVISION OF HEALTH

1660 N. Virginia Street

Reno, Nevada 89503

Information in box must be completed or analysis will not be performed.

SAMPLING INSTRUCTIONS: Laboratory requires a clean sample. Samples which contain dirt or sediment will not be accepted.

Date sampled 9/23/81
Owner S.A. - Jeffrey Wally phone 707-222-2200
Owner address 2400 North 2nd Street

Report to:

W.C. Dethard 94A,
Address.....
City.....

WATER SOURCE:

Spring

Surface

Cold

Depth

in depth

Ft.

Now in use

Ft.

Yes No

ROUTINE DOMESTIC ANALYSIS
113 PLEASE CHECK BOQ. 101 E. CIRCLE CONSTITUENT DESIRED

Constituent P.P.M.	Constituent P.P.M.	Constituent P.P.M.	Constituent P.P.M.	Constituent P.P.M.	Constituent P.P.M.
11.S. @ 231 W.C.	Chloride 17	Iron 0.16	Copper 0.01	Lead 0.01	
Hardness 108	Nitrate 3.4	Manganese 0.05	Zinc 0.00	Mercury 0.00	
Sodium 30	Alkalinity 150	Color 5	Barium 0.02	Pb 0.0	
Magnesium 8	Bicarbonate 103	Turbidity 1.3	Boron 0.0	Ag 0.0	
Chlorum 4.4	Carbonate 0	p.H. 7.40	Silica 30	Selenium 0.0	
Chromium 2	Fluoride 0.25			Antimony 0.0	
Chlorate 24	Arsenic 0.000			Lead 0.0	
N.B.A.S. < 0.1					

Remarks

DECEIVED

9/29/81

OCT 02 1981

Consumer Health
Protection Services

WATER QUALITY ANALYSIS - 43 HOUR WELL NO. 3

100

FOUNDATION DIVISION

SPARKS, NEVADA • SEATTLE, WASHINGTON • LAS VEGAS, NEVADA

PROJECT NO 513-002-791

PLATE C-6

IN TRIPPLICATE
PLEASE PRINT

BUREAU OF LABORATORIES AND RESEARCH

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IN TRIPPLICATE
(PLEASE PRINT)

WATER CHEMISTRY:

NEVADA STATE HEALTH LABORATORY
NEVADA DIVISION OF HEALTH

1660 N. Virginia Street

Reno, Nevada 89503

SAMPLING INSTRUCTIONS: Laboratory requires a clean sample. Samples which contain dirt or sediment will not be accepted.

Information in box must be completed or analysis will not be performed.

Date sampled 6-19-82

Date submitted 6-21-82

Owner's name Walt

Owner address Box 3195

City Reno, NV

Report to: Name W.C.H.O. - Att'n S. Gandy

Address 7th & Wells

City Reno

State N.V.

Phone 785-3118

Owner phone no. 3322-3118

Owner address Box 3195

City Reno, NV

Report to: Name W.C.H.O. - Att'n S. Gandy

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State N.V.

Phone 785-3118

Owner phone no. 3322-3118

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48 hr

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City Reno, NV

59824

(Rev. 10/70)

Information in box must be completed or analysis will not be performed.

County Washoe

Township 20 N

Range 20 E

Section 6

General location Mt. Hermon

Source address None

WATER SOURCE: Spring

Surface ✓

Depth 415 ft

Cold ✓

Hot ✓

In depth 12 ft

Casing diameter 12 in

Now in use Yes No

ROUTINE DOMESTIC ANALYSIS

FOR PARTIAL ANALYSIS

CIRCLE CONSTITUENT DESIRED

PLEASE CHECK BOX

2056

X

Constituent P.P.M.

Constituent P.P.M.