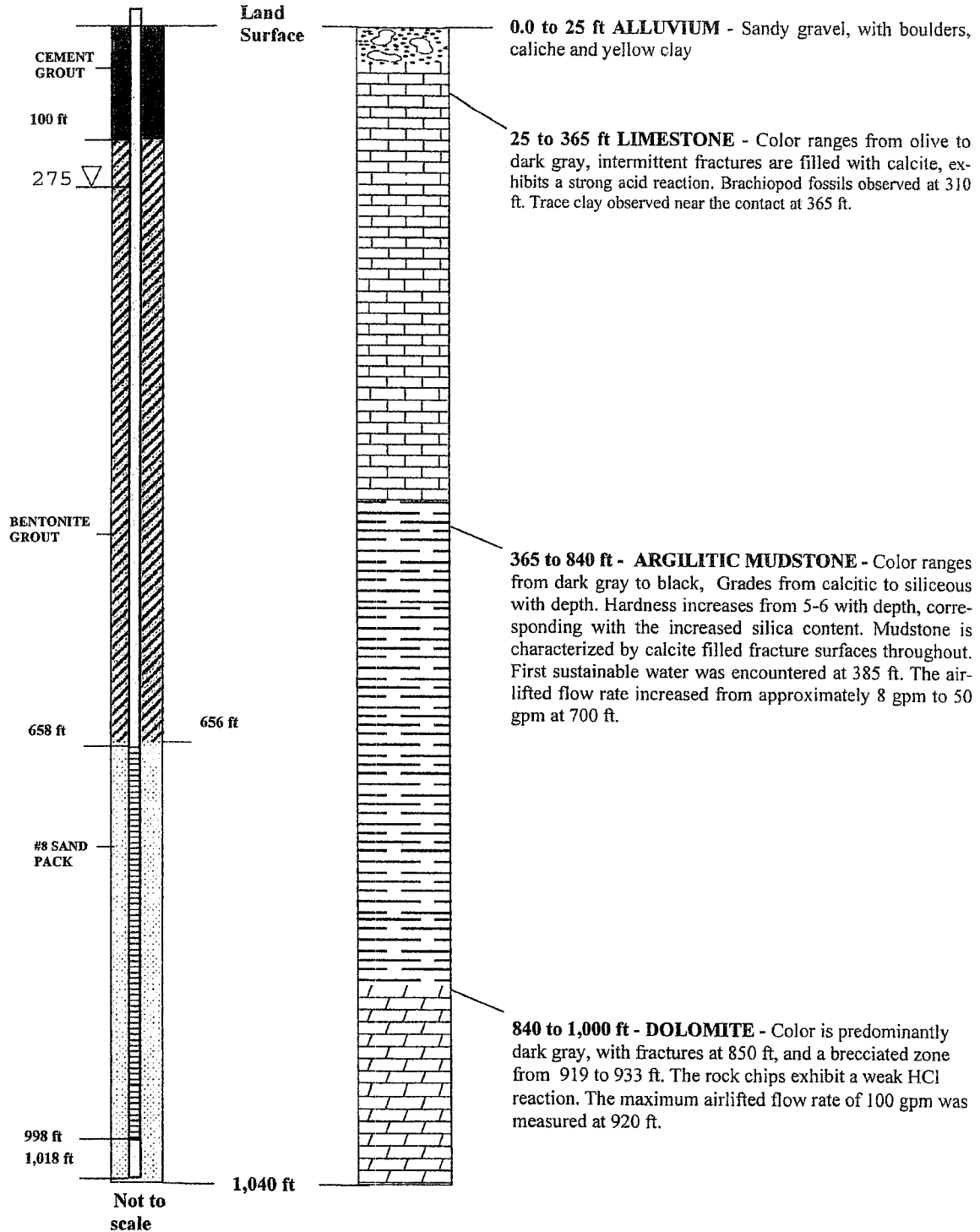
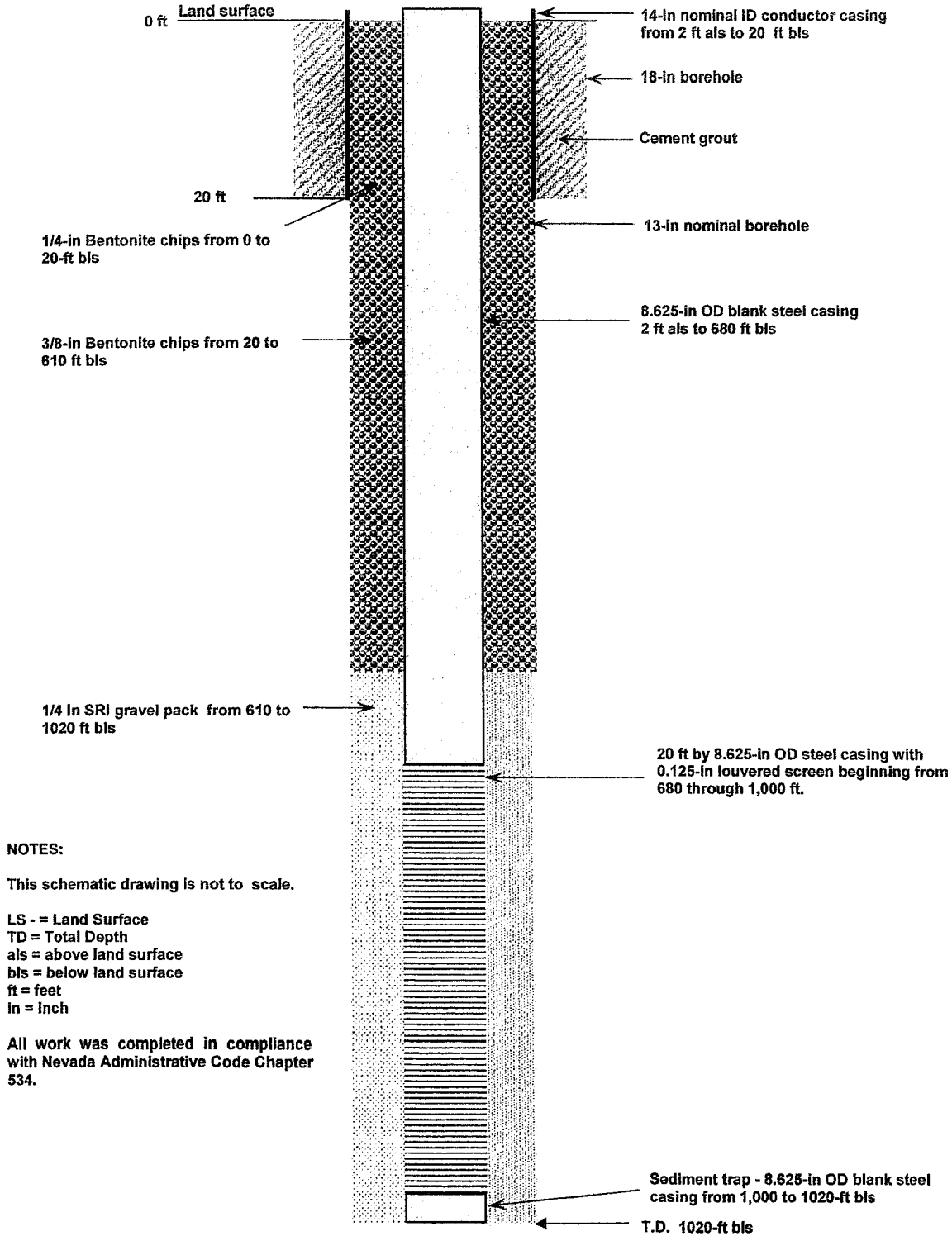


SUMMARY COMPLETION LOG FOR RWX-214 MW



001892

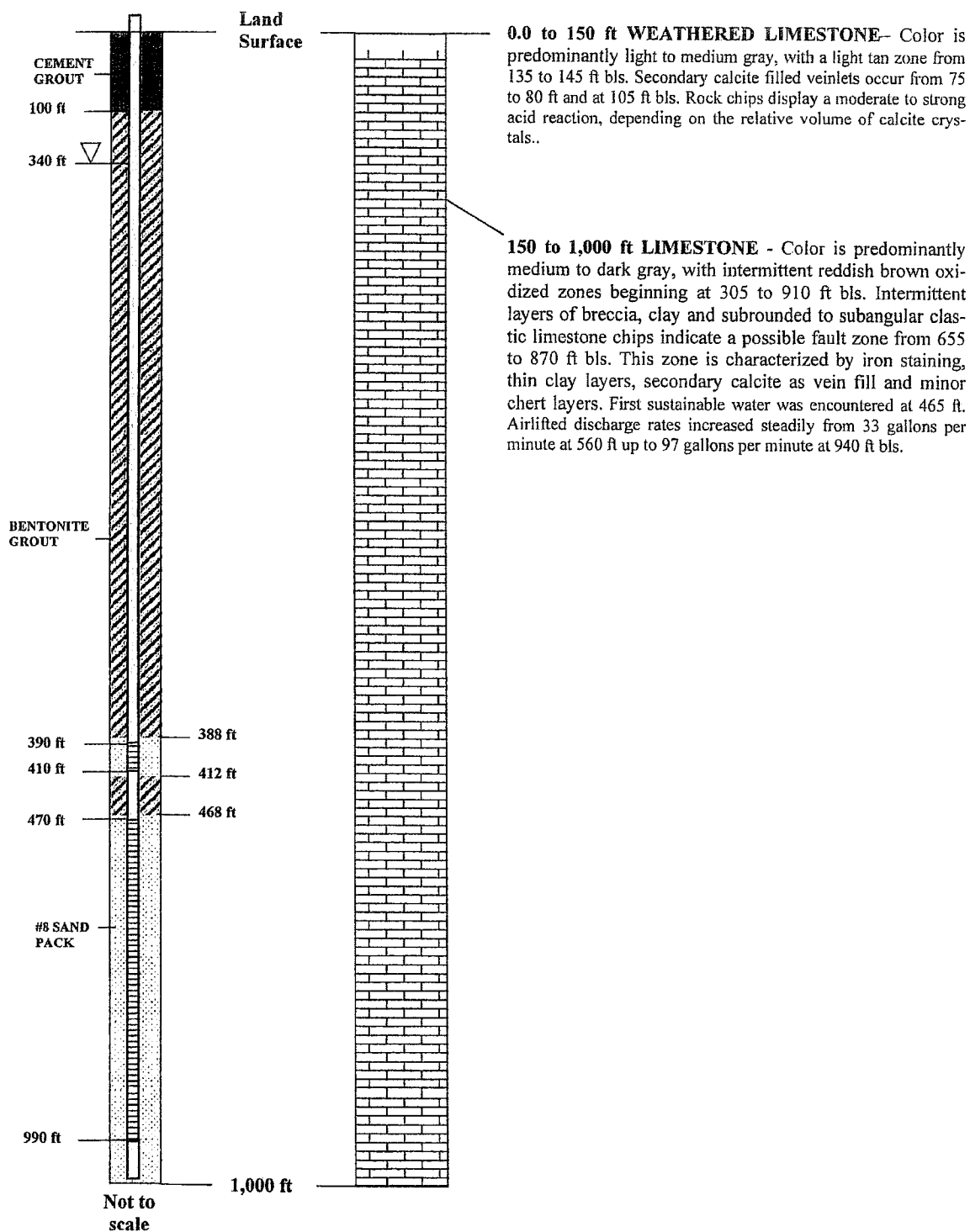
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 214T



001893

JA2059

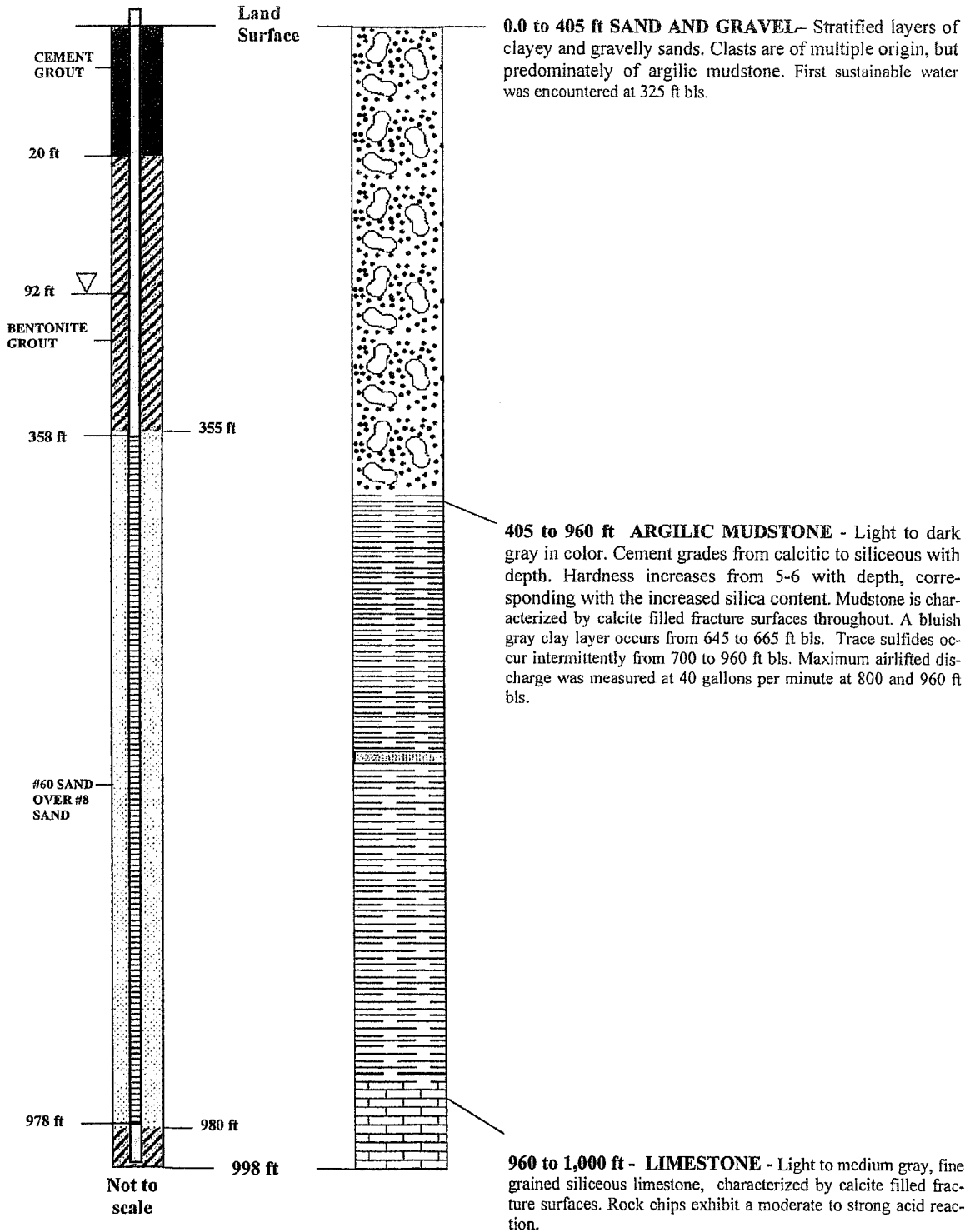
SUMMARY COMPLETION LOG FOR RWX-215 MW



001894

JA2060

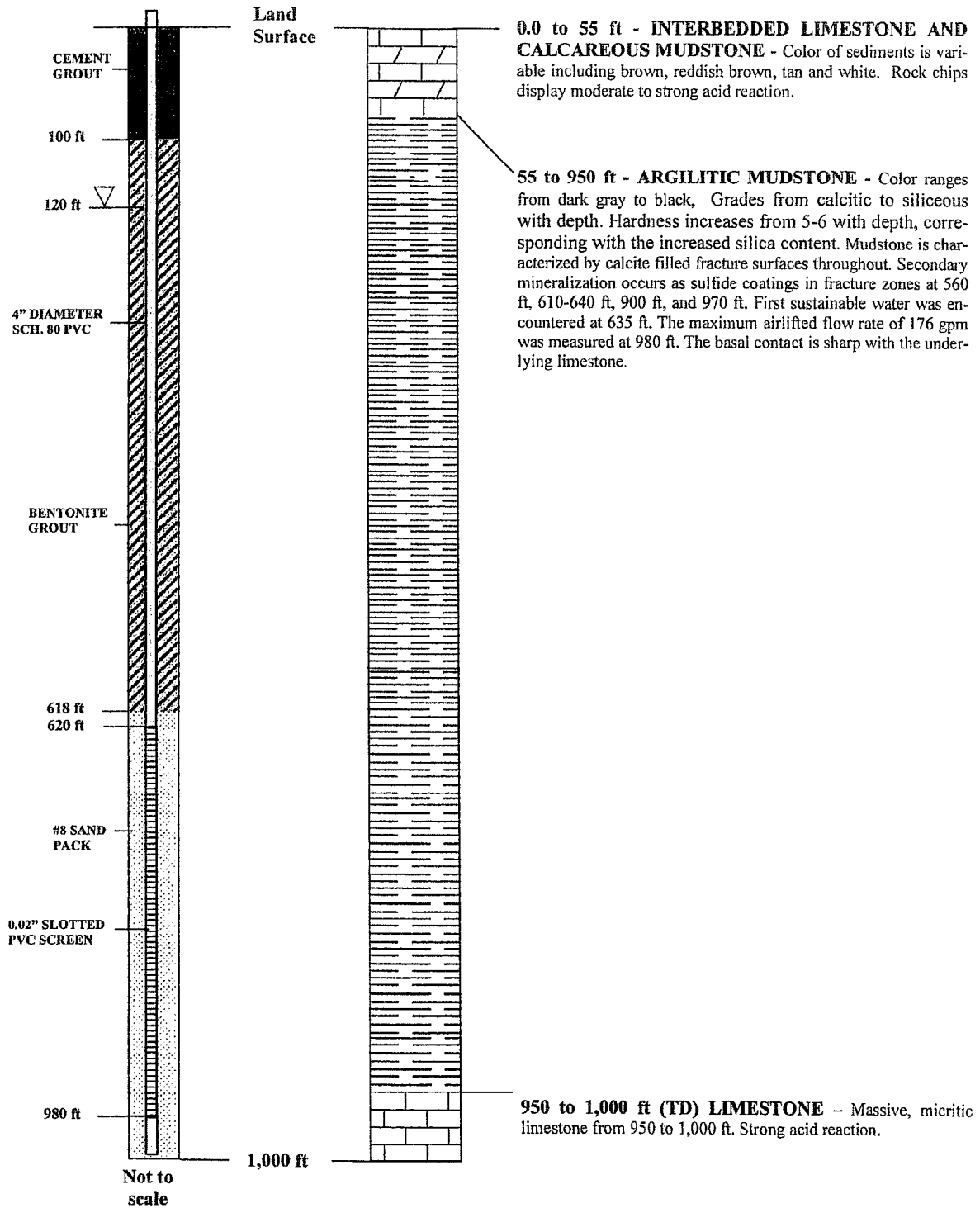
SUMMARY COMPLETION LOG FOR RWX-219 MW



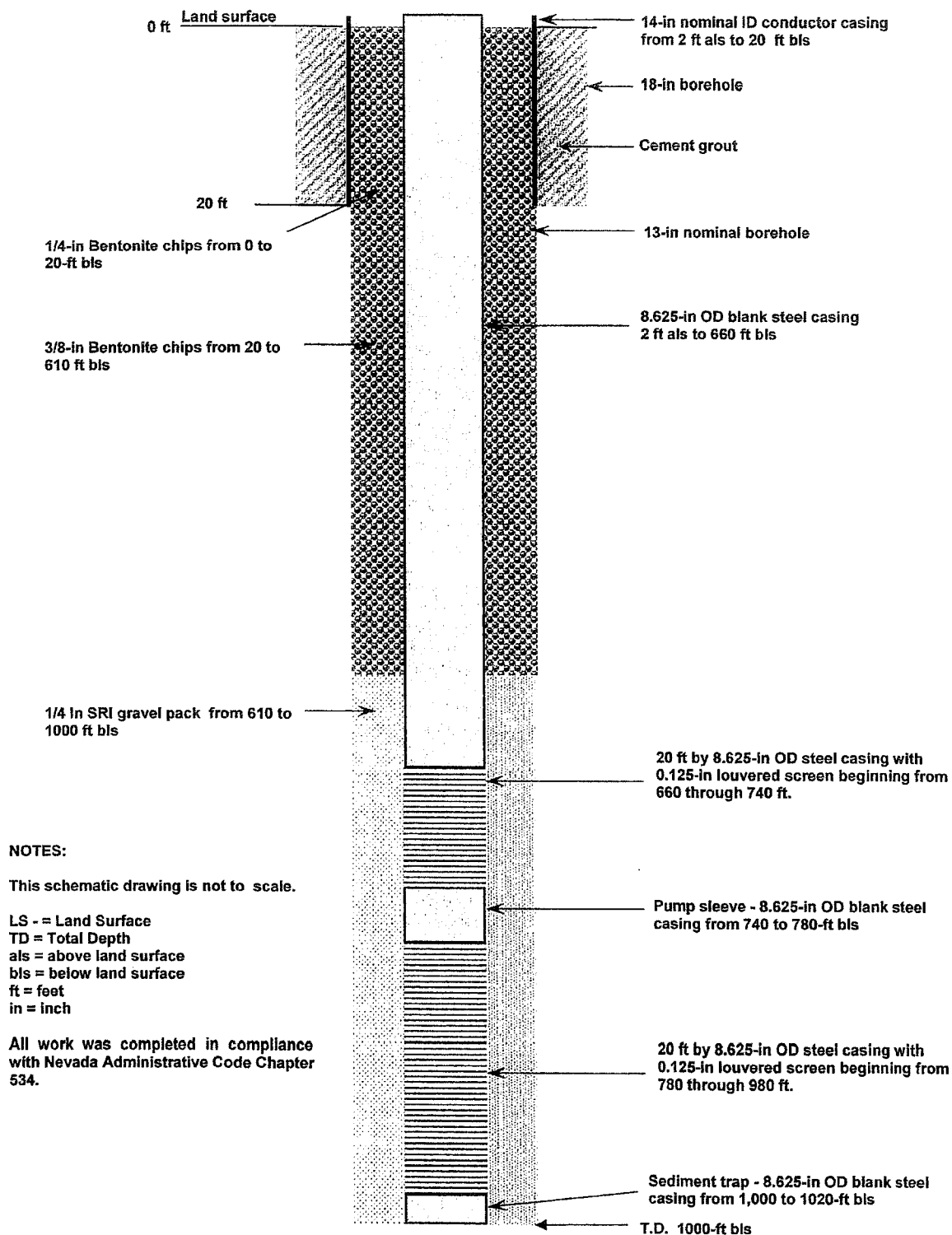
001895

JA2061

SUMMARY COMPLETION LOG FOR RWX-220 MW



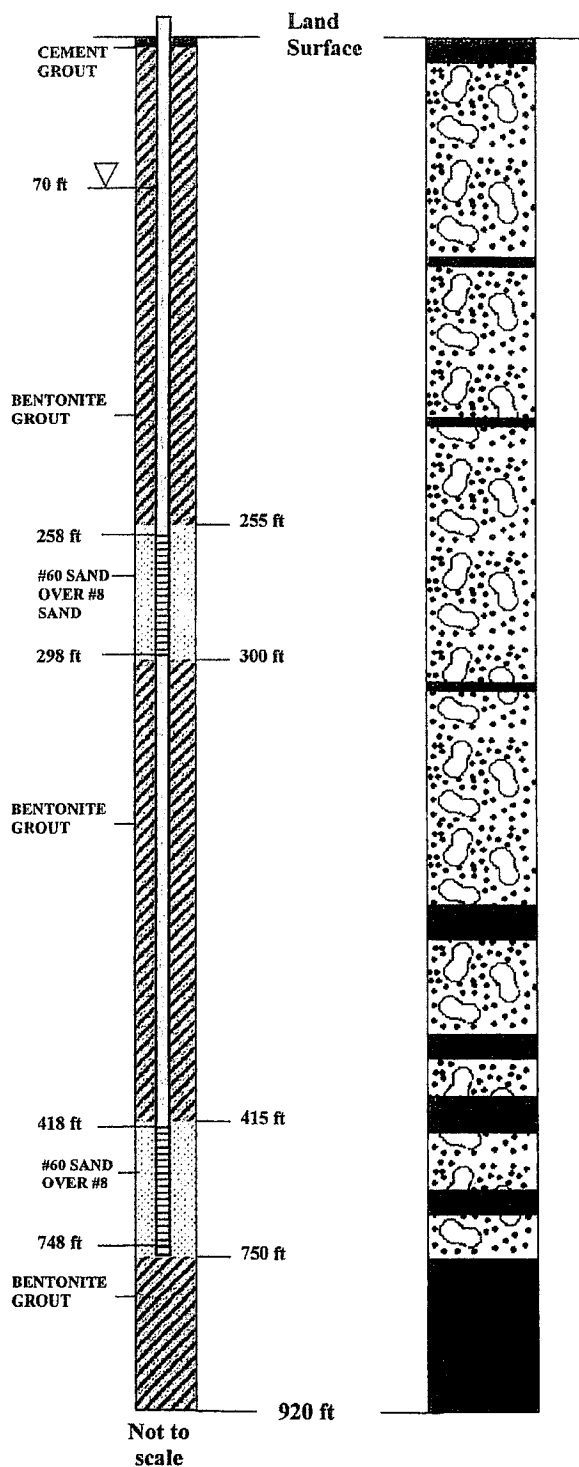
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 220T



001897

JA2063

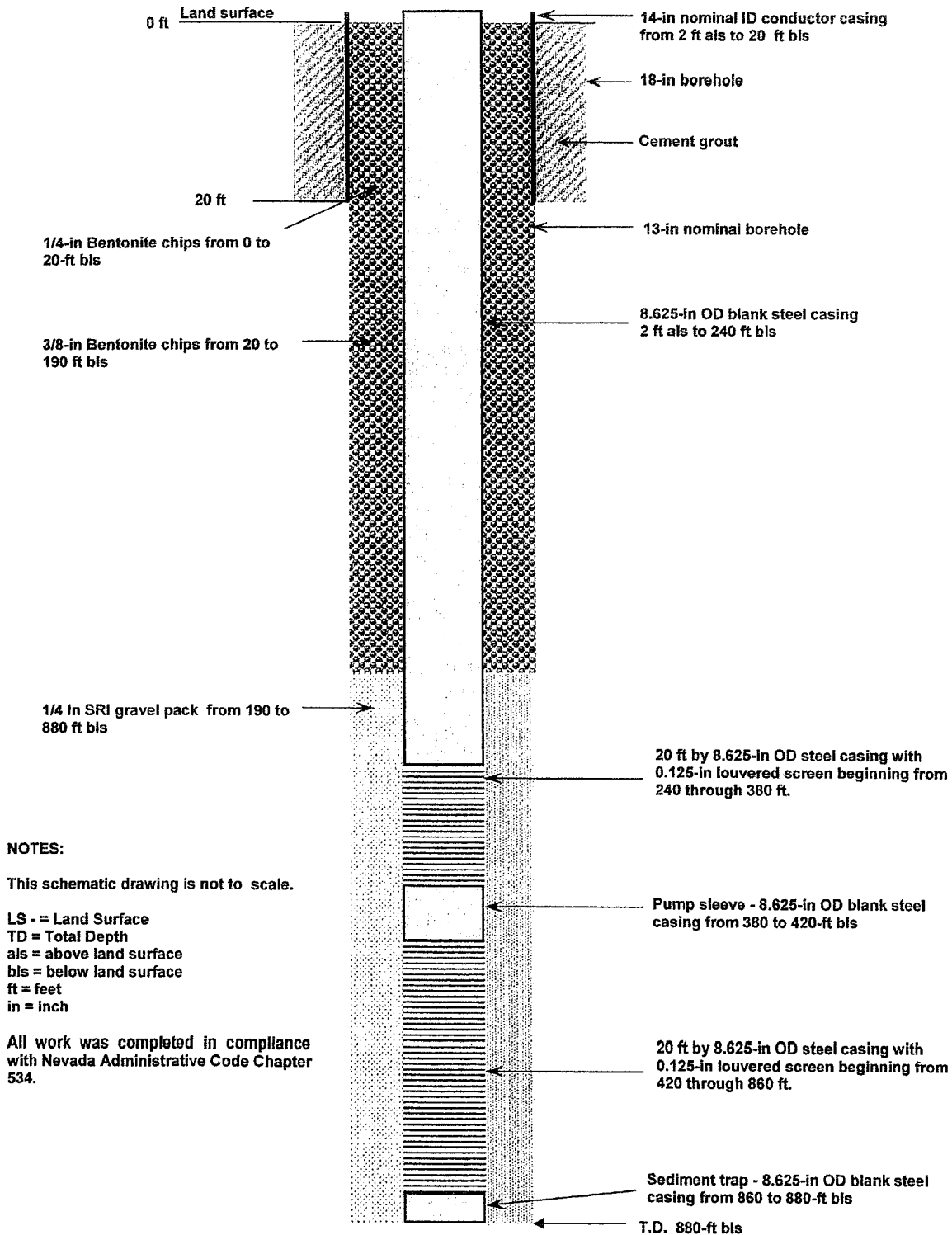
SUMMARY COMPLETION LOG FOR RWX-222 MW



0.0 to 750 ft SAND AND GRAVEL— alluvium with sand, gravel and clay. Gravels are subrounded to angular ranging in up to 50 mm in diameter. The sand is coarse grained. The clay is fat and from medium to high plasticity. Gravel and sand zones at 250'-305', 333'-345', 365'-385', 420'-650', and 670'-680' are interbedded with or separated by distinctive clay layers between 1' and 30' thick. The most distinctive and thickest clay zones are between 305'-333', 350'-365', 385'-420', and 650'-670'. First sustainable water was encountered at 160 ft bls. Airlifted groundwater discharge rates increased to over 100 gallons per minute beginning at 440 ft bls. The maximum airlifted discharge of 257 gallons per minute was measured at 760 through 820 ft bls.

750 to 920 ft CLAY— fat clay throughout with few thin intermittent sand and gravel layers.

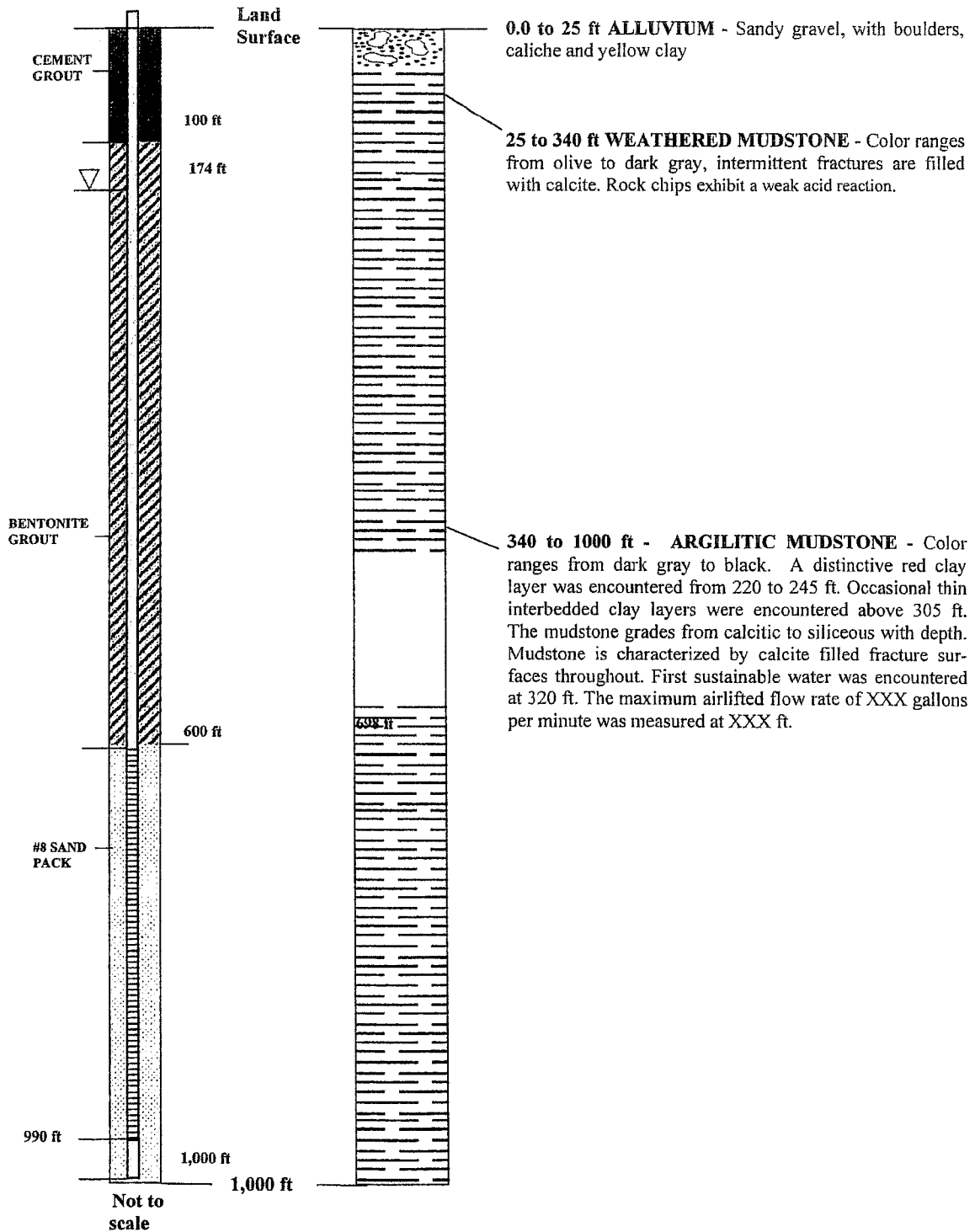
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 222T



001899

JA2065

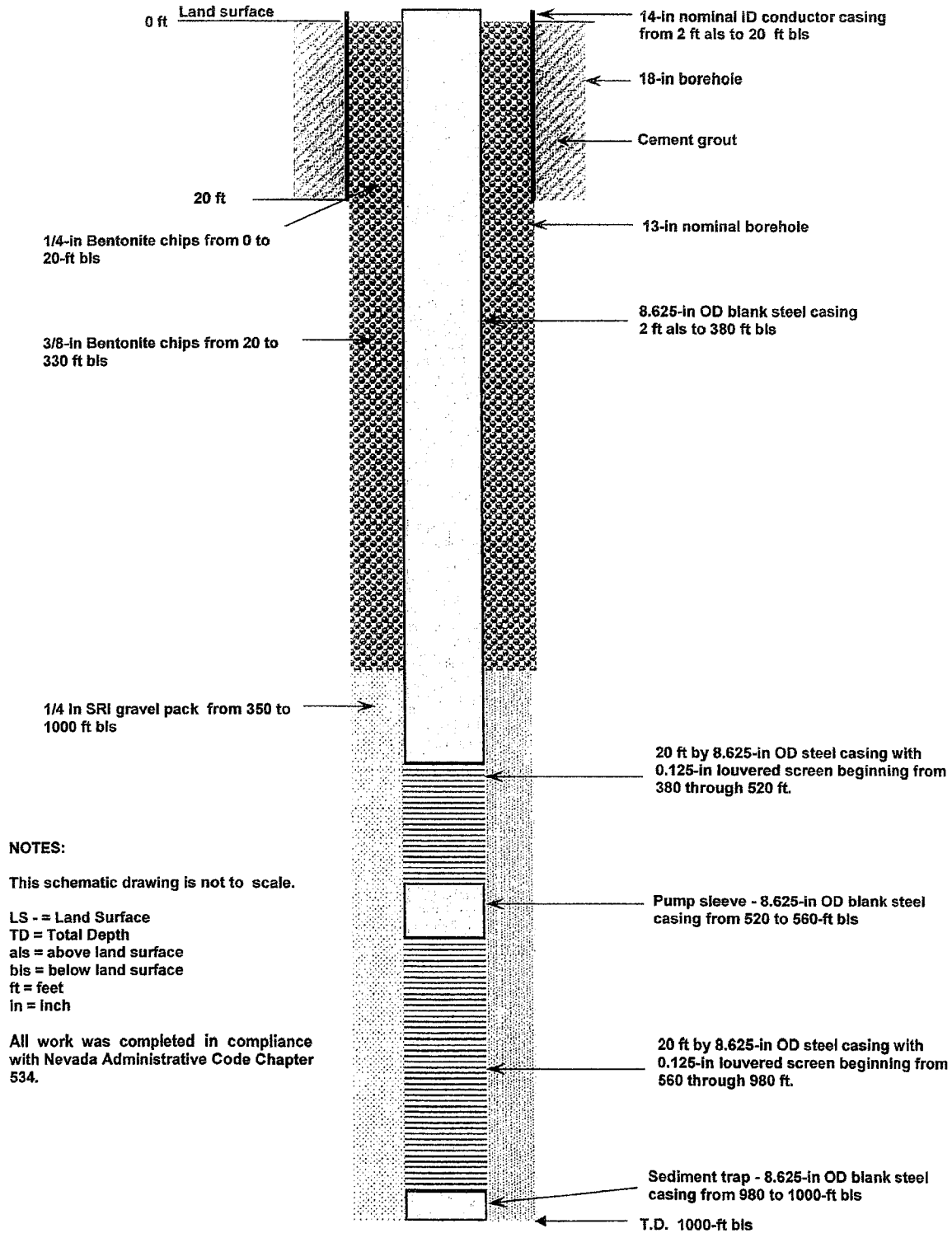
SUMMARY COMPLETION LOG FOR RWX-223 MW



001900

JA2066

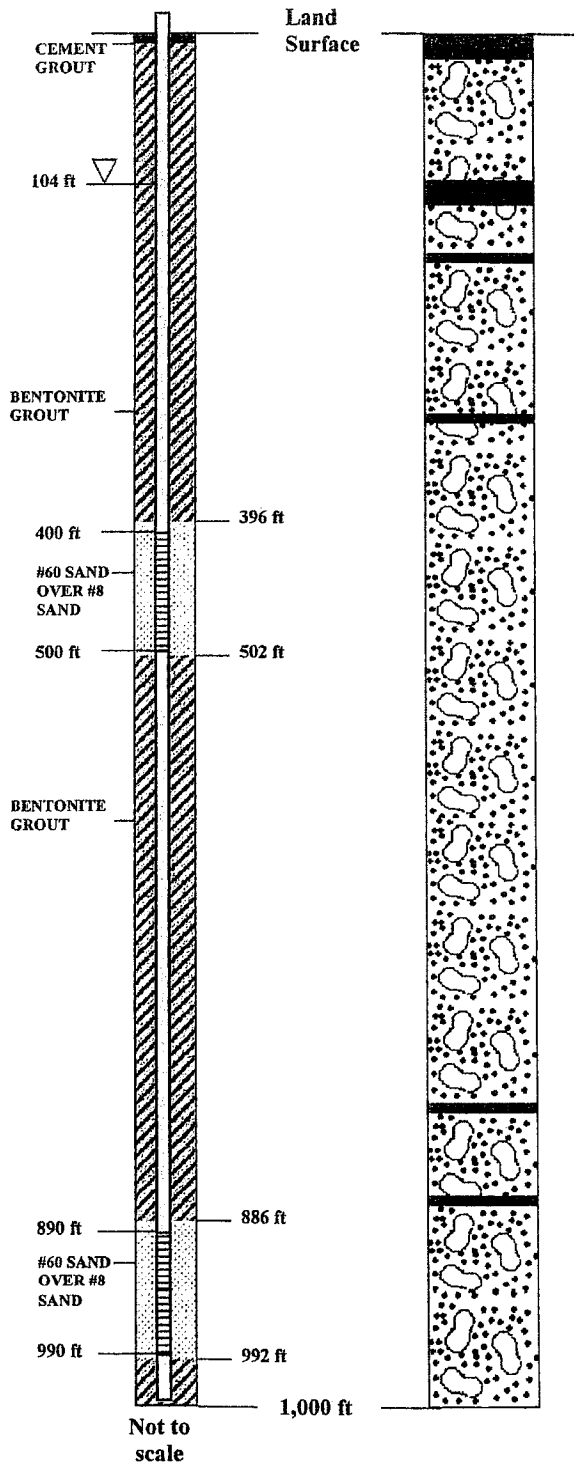
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 223T



001901

JA2067

SUMMARY COMPLETION LOG FOR RWX—228 MW

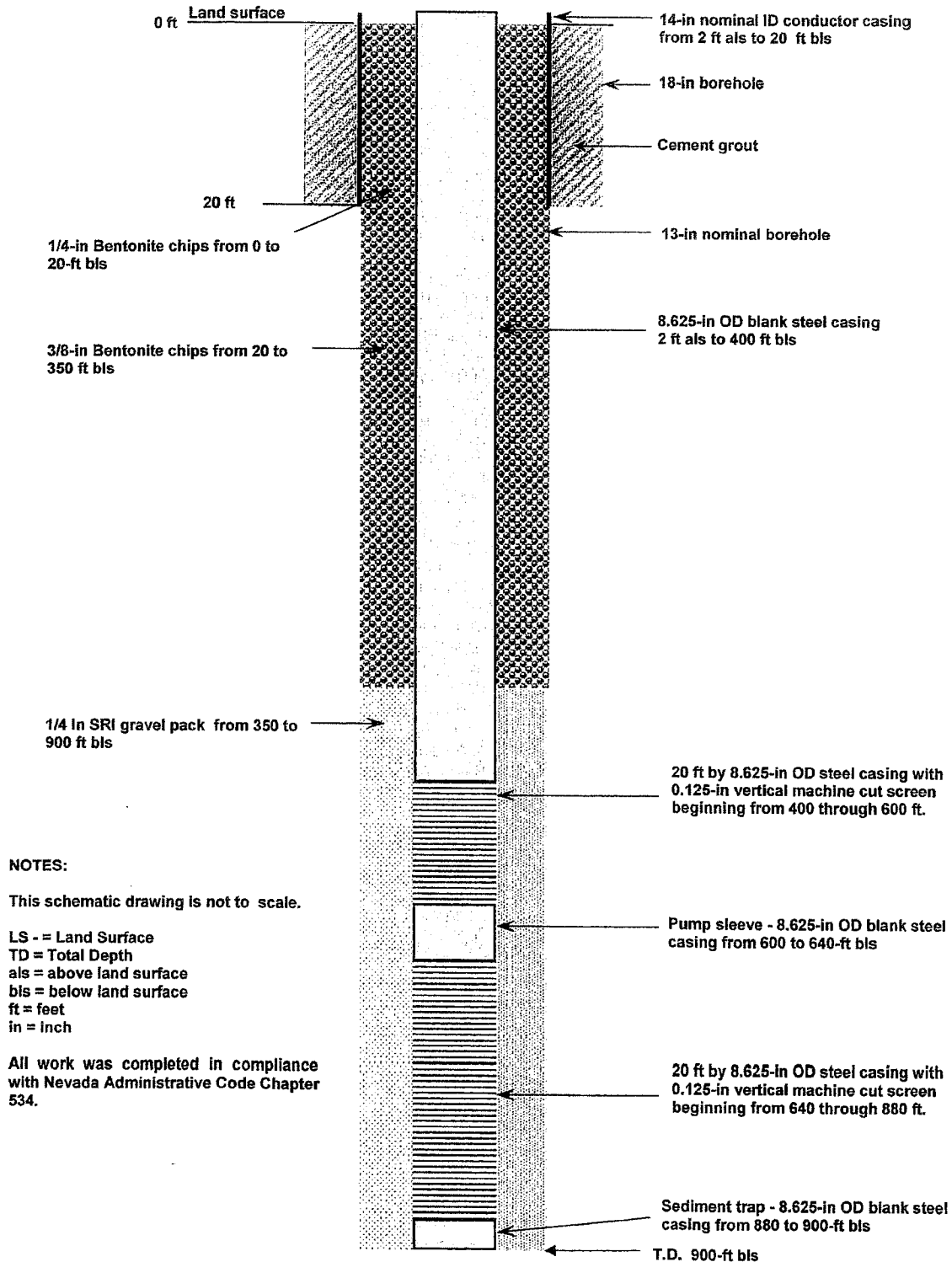


0.0 to 1,000 ft SAND AND GRAVEL— Stratified layers of clayey and gravelly sands. Clasts are of multiple origin, including limestone, mudstone and chert. Clay layers occur from 0 to 20 ft, 100 to 120 ft, 145 to 150 ft, 260 to 265 ft, 736 to 737 ft and 795 to 797 ft bls. First sustainable water was encountered at 320 ft bls. Airlifted groundwater discharge rates increased to over 100 gallons per minute beginning at 620 ft bls and continuing to the total depth of the borehole. The maximum airlifted discharge was measured at 150 gallons per minute at 860 ft bls.

001902

JA2068

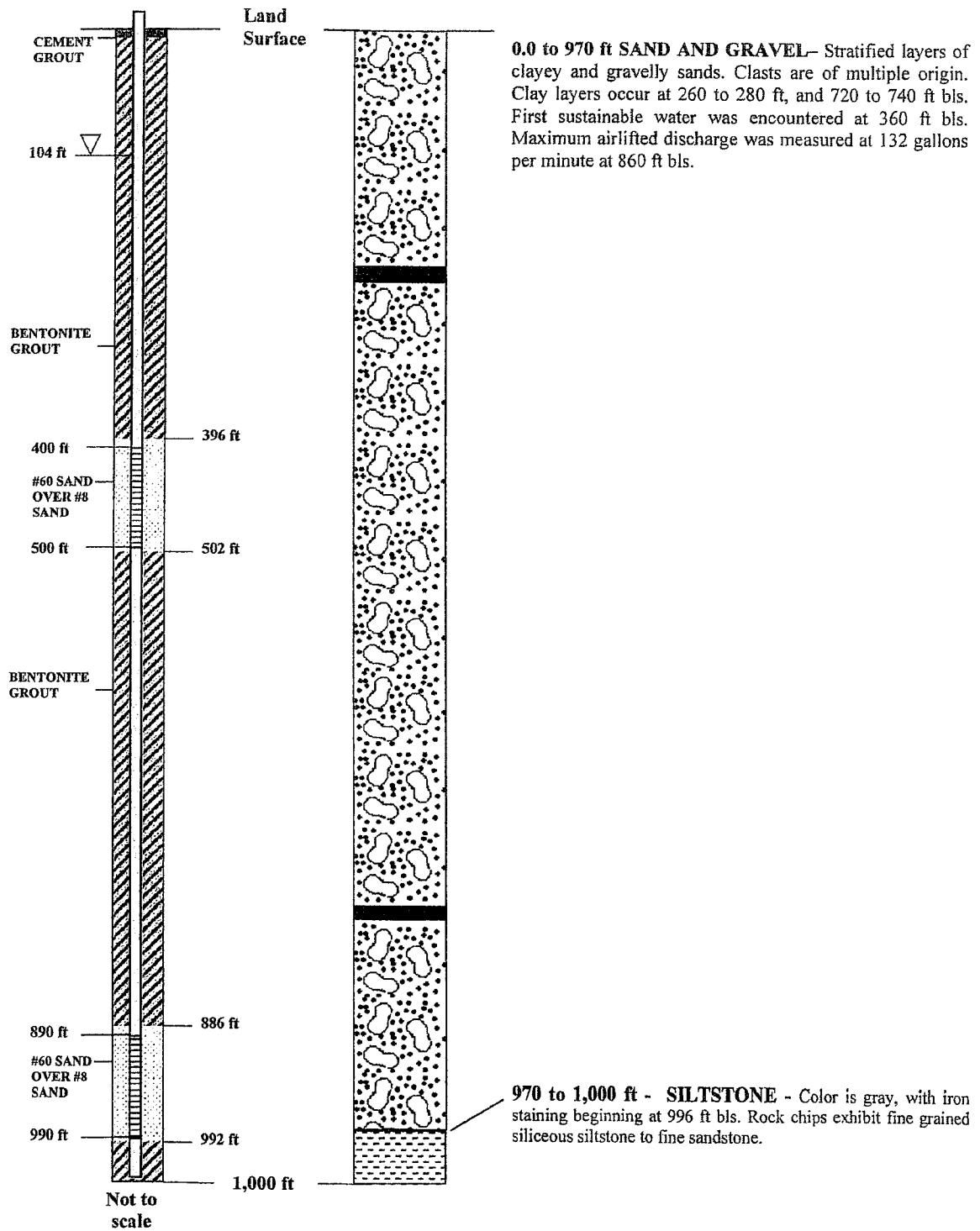
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 228T



001903

JA2069

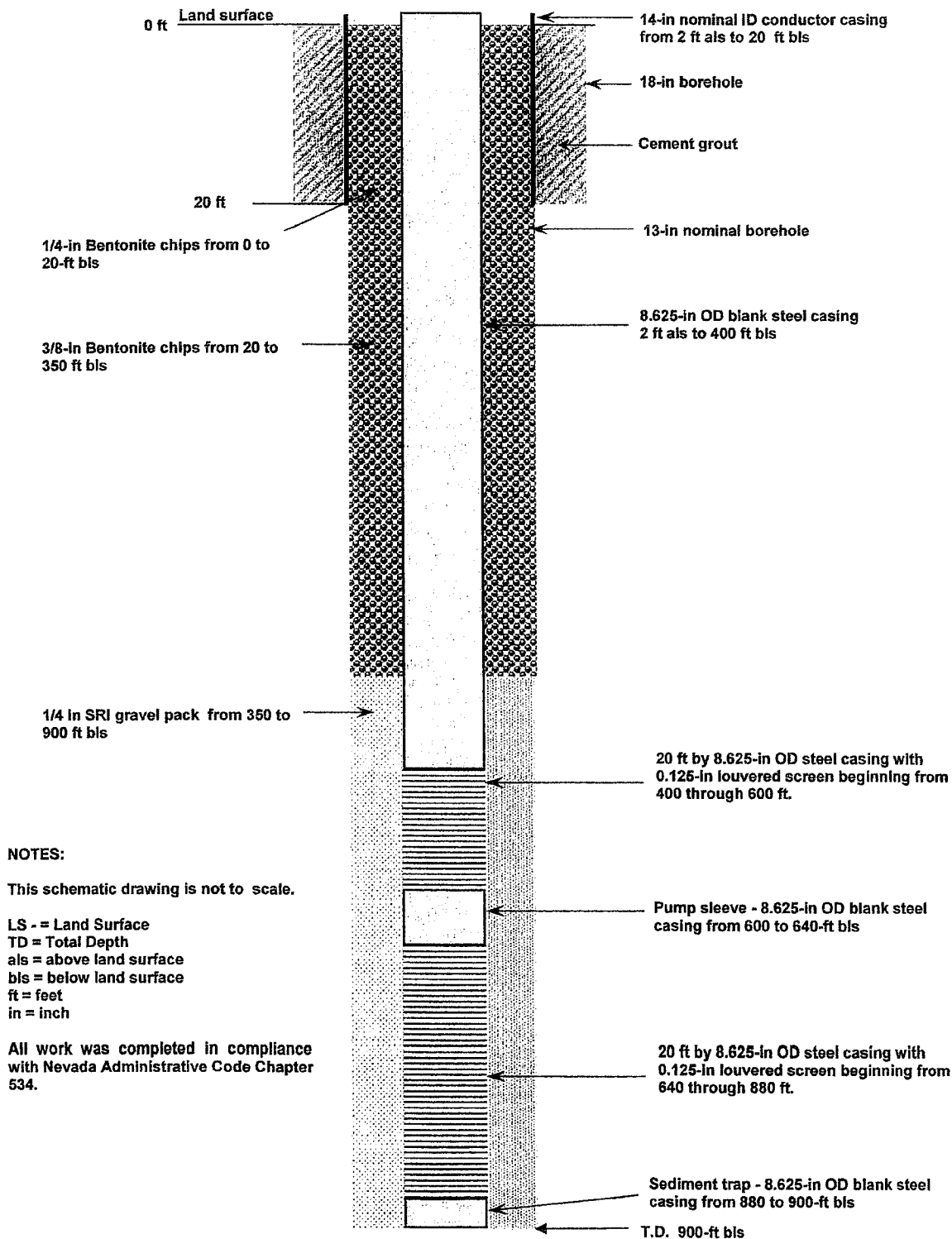
SUMMARY COMPLETION LOG FOR RWX-229 MW



001904

JA2070

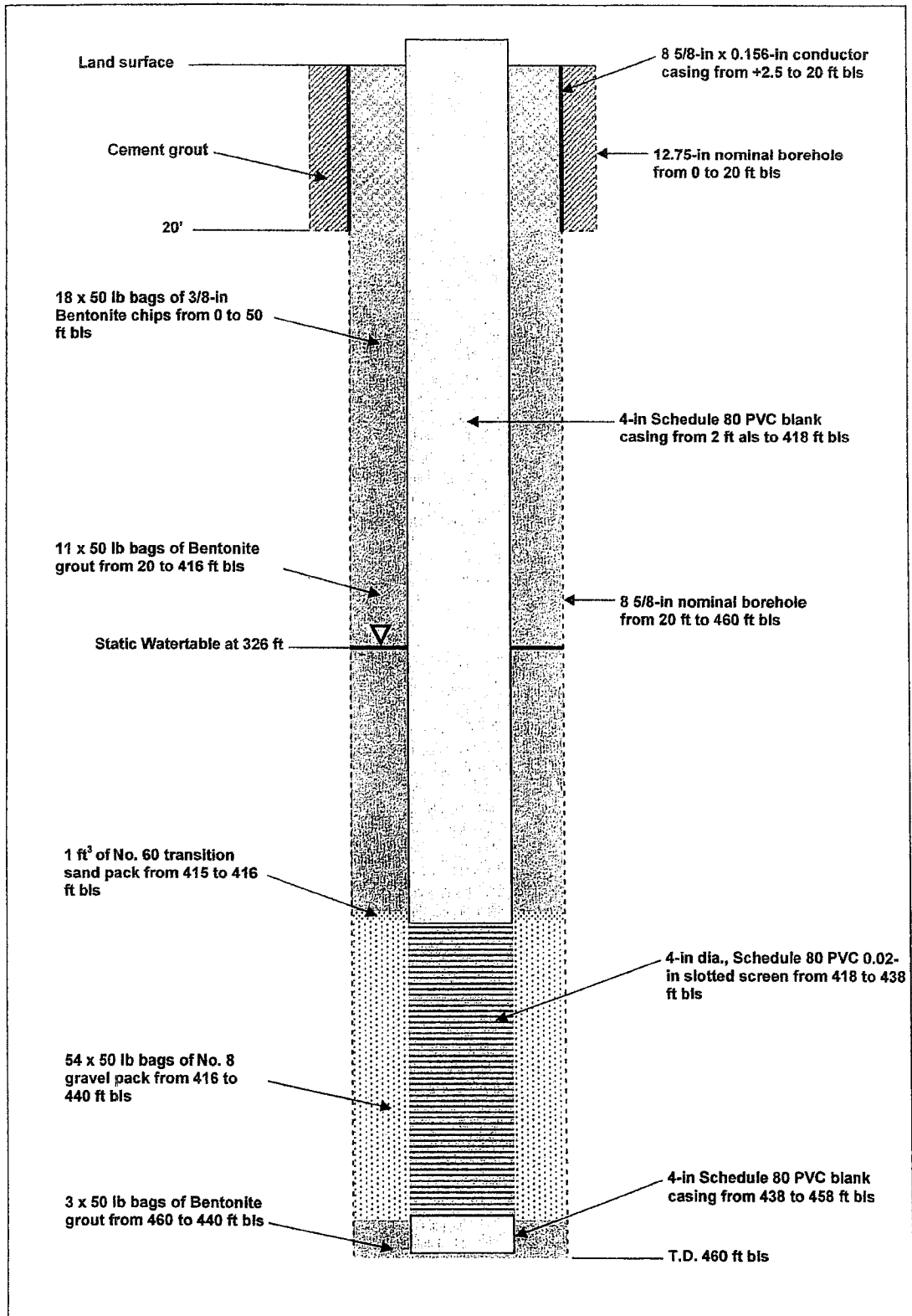
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL 229T



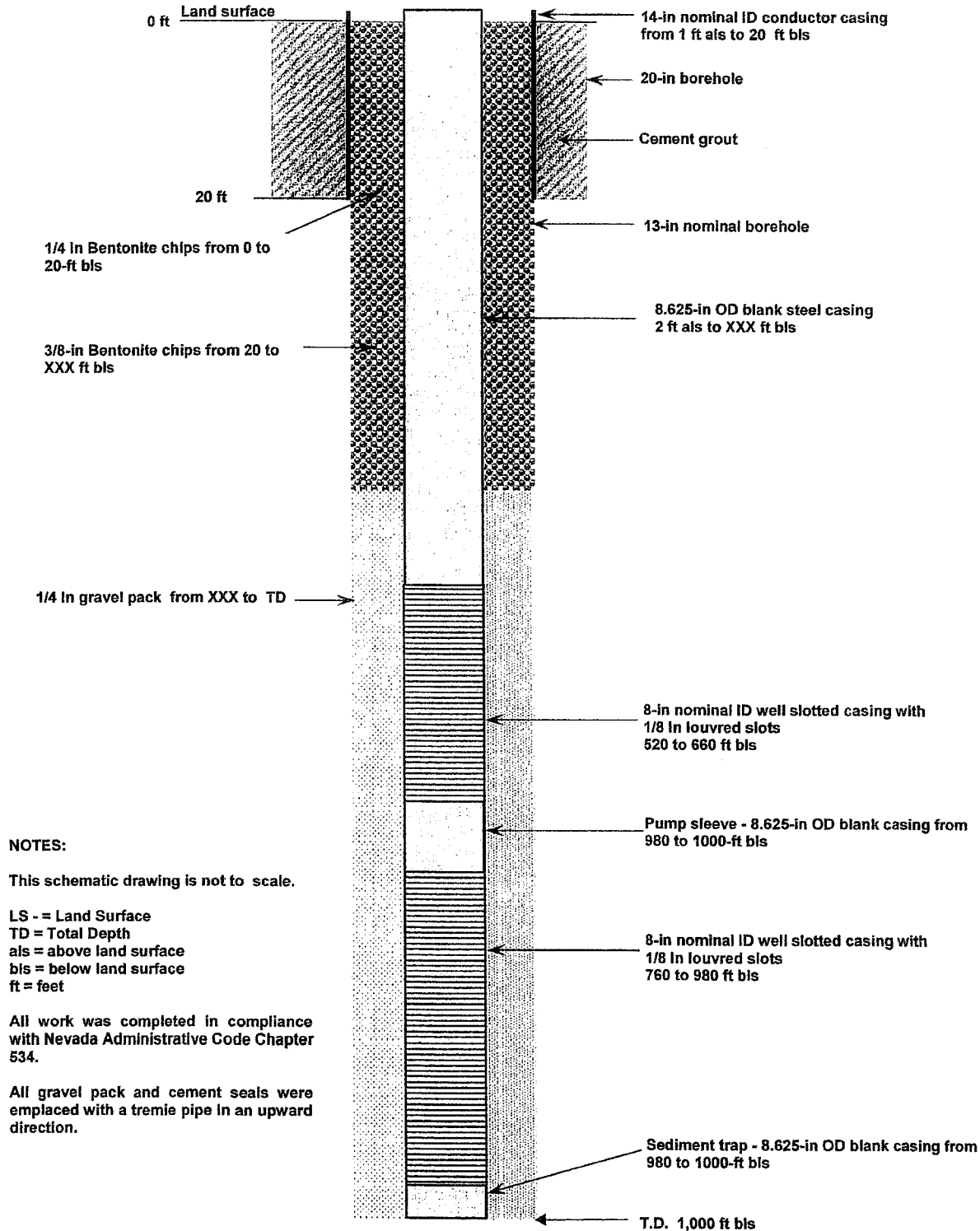
001905

JA2071

Schematic Well Completion Drawing—235P (Not to Scale)



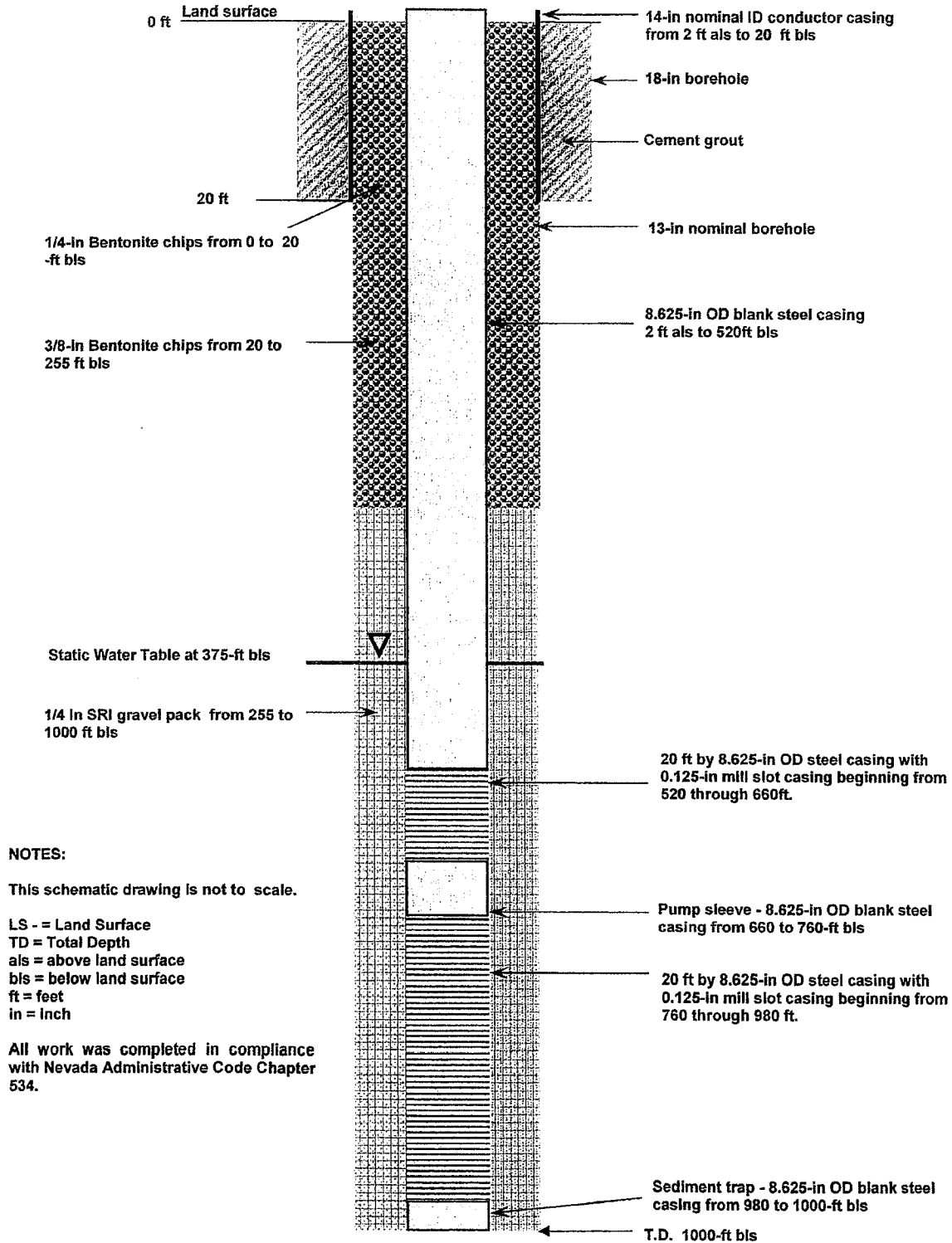
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL TM-B



001907

JA2073

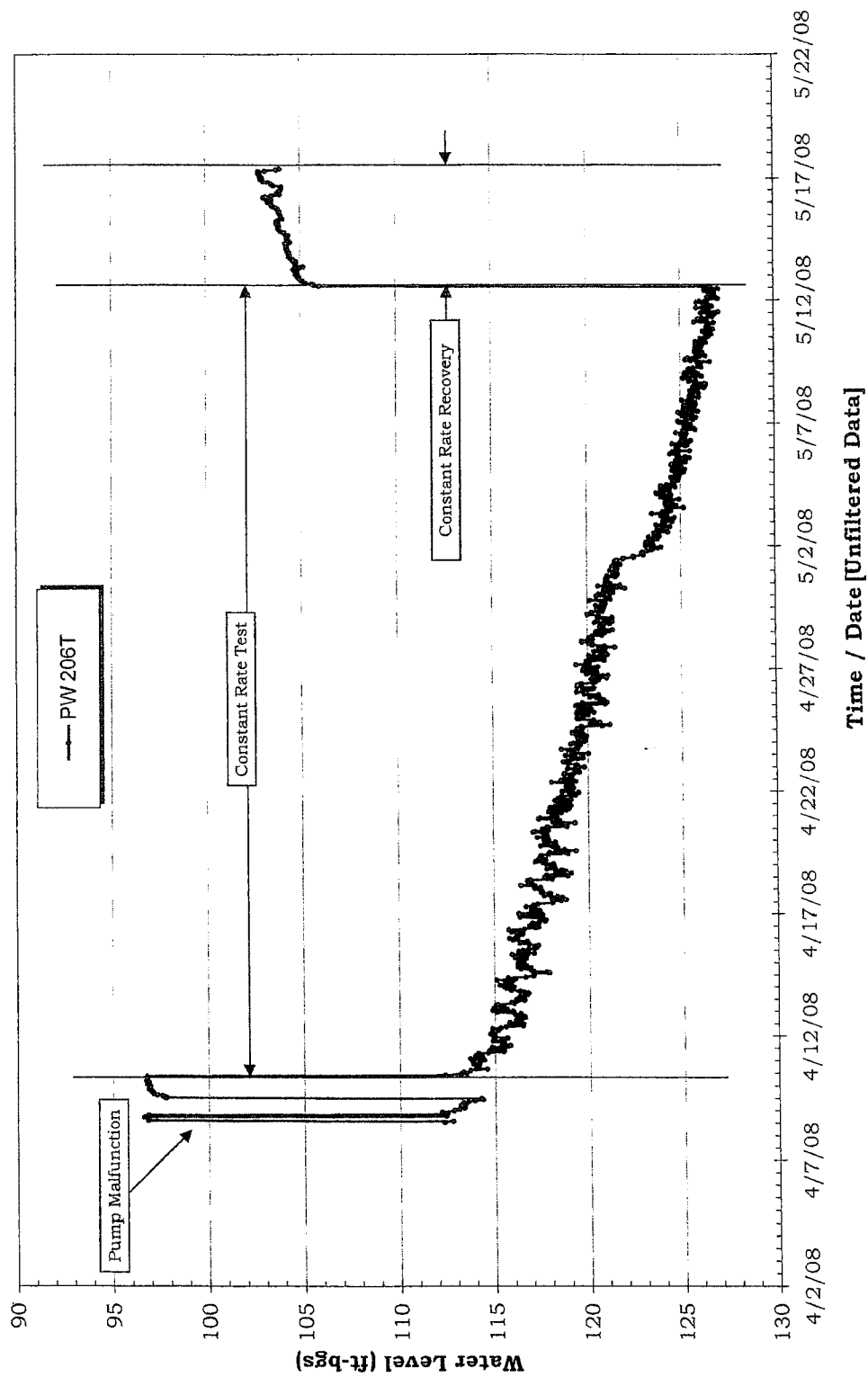
SCHEMATIC WELL COMPLETION DRAWING FOR TEST WELL TFX-2



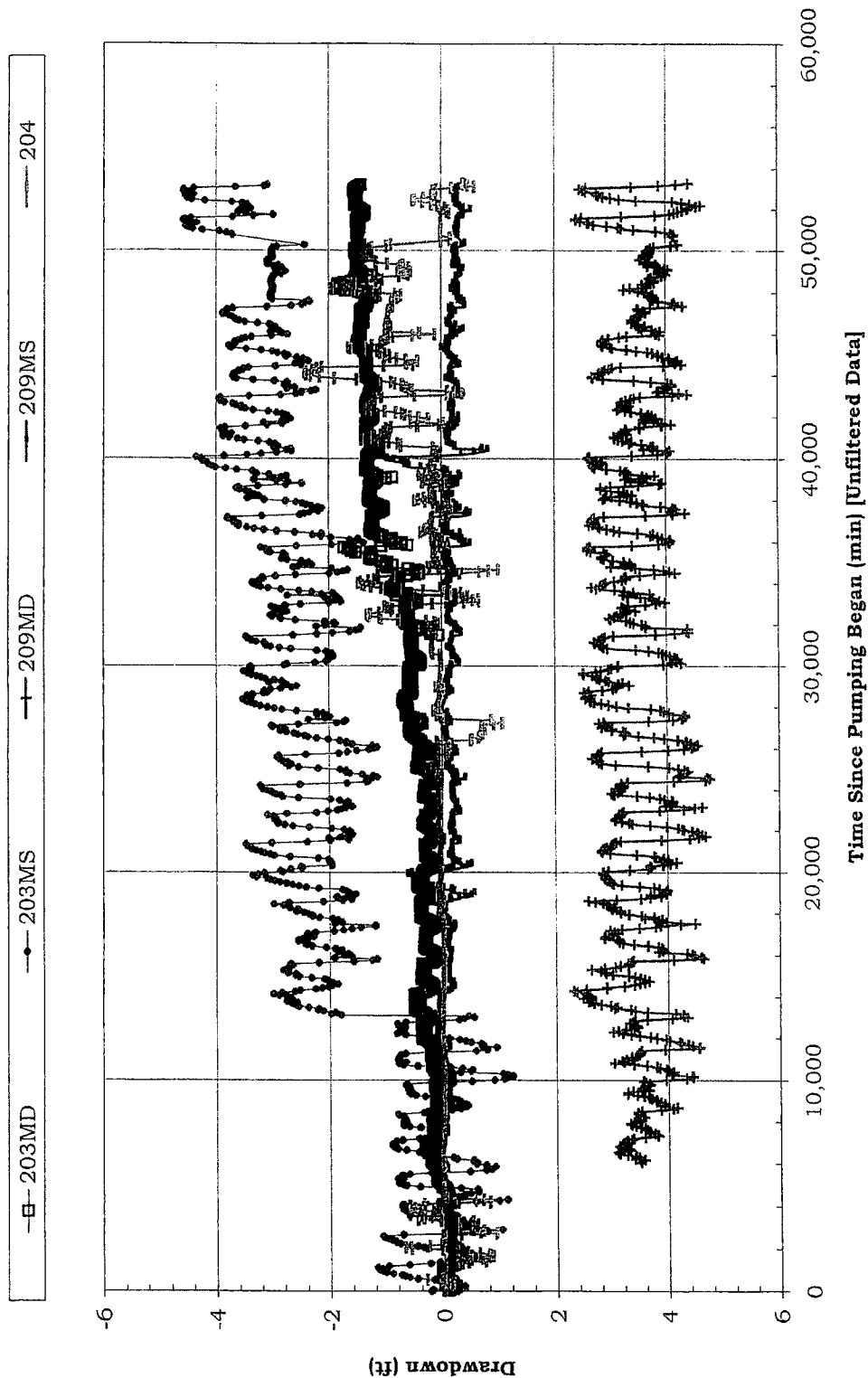
001908

JA2074

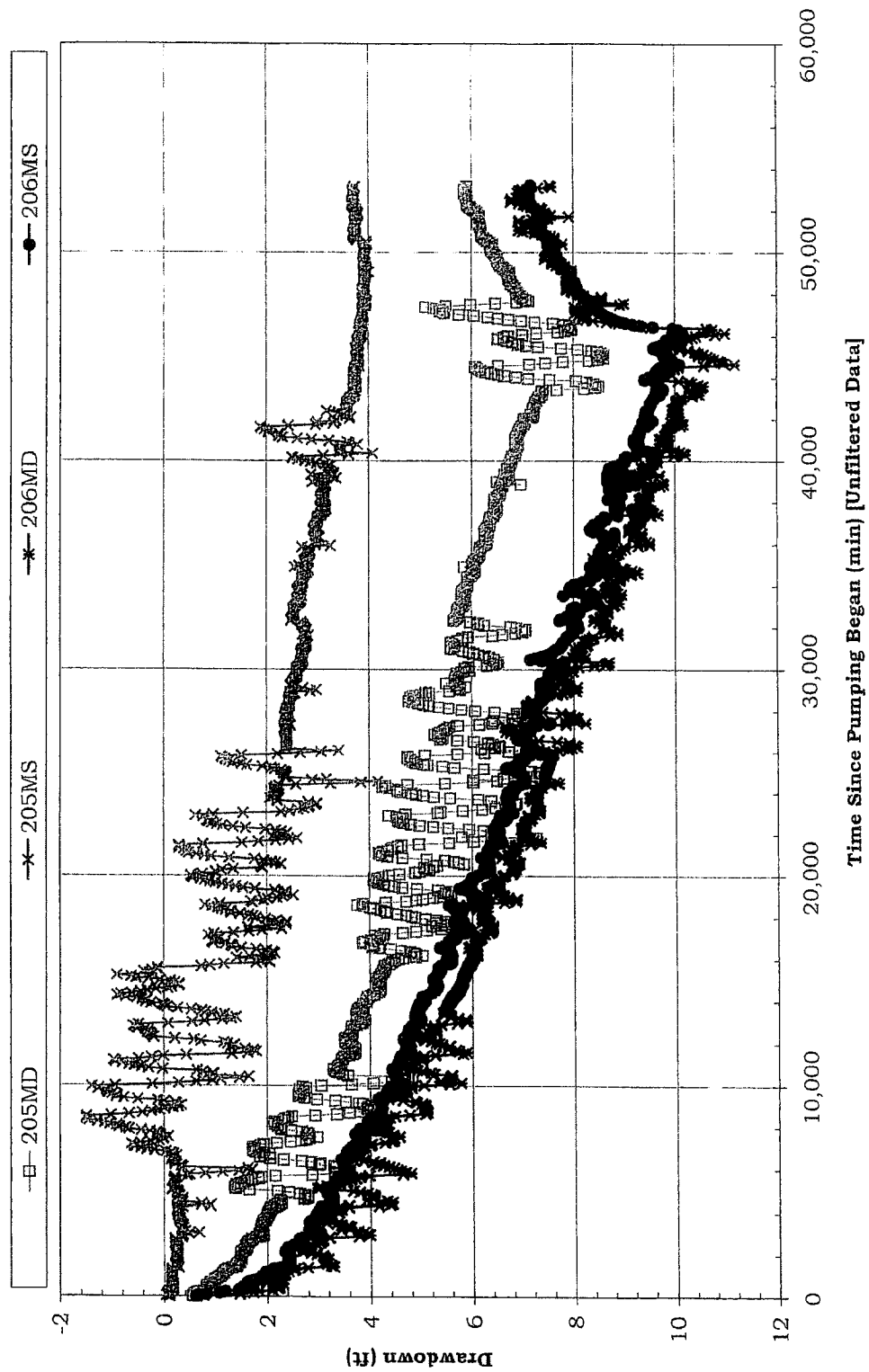
Mt. Hope Project - Eureka, NV
Complete Aquifer Test 4/8/08 - 5/17/08



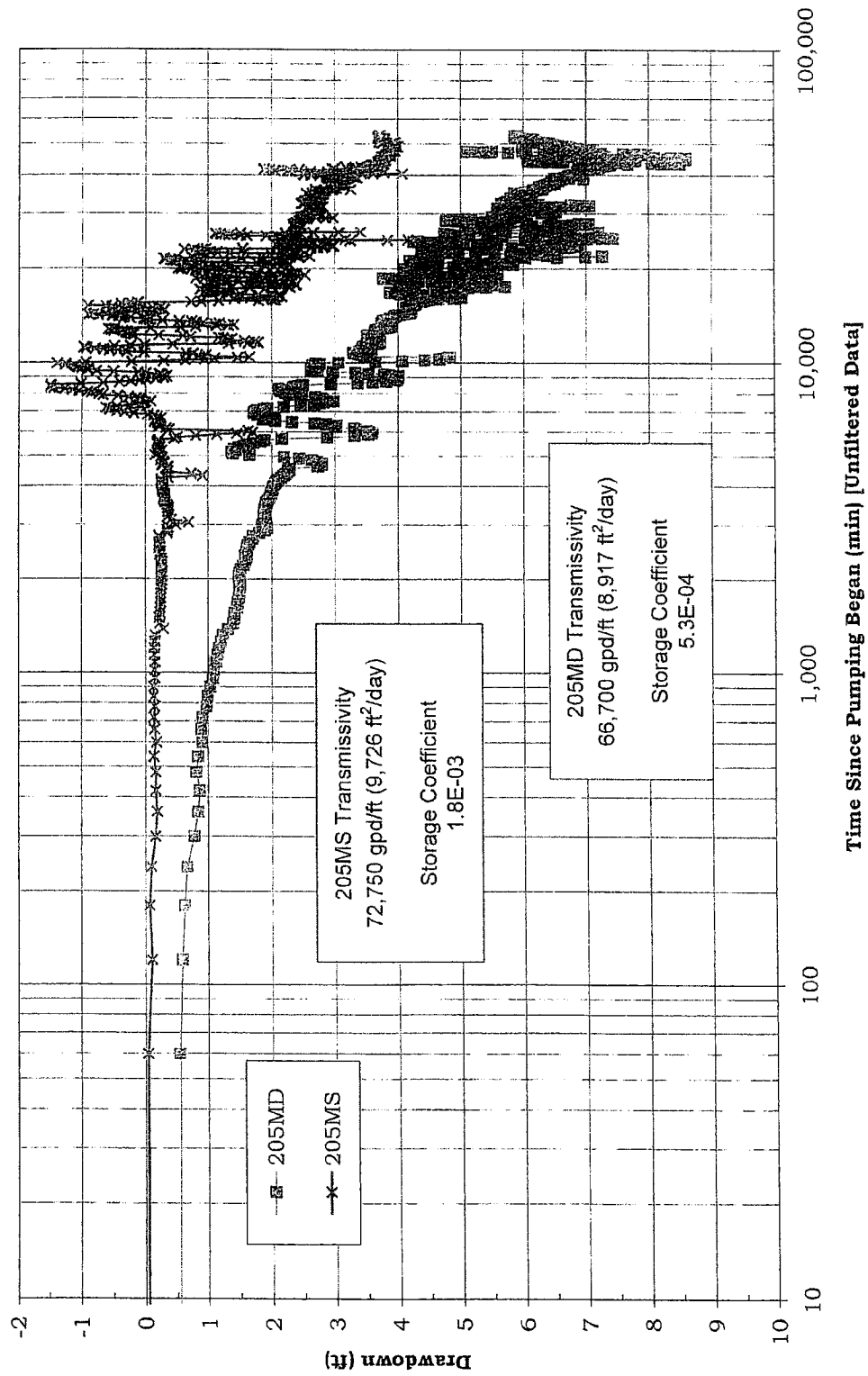
Mt. Hope Project - Eureka, NV
 206T Constant Rate Test, April 8 - May 12, 2008



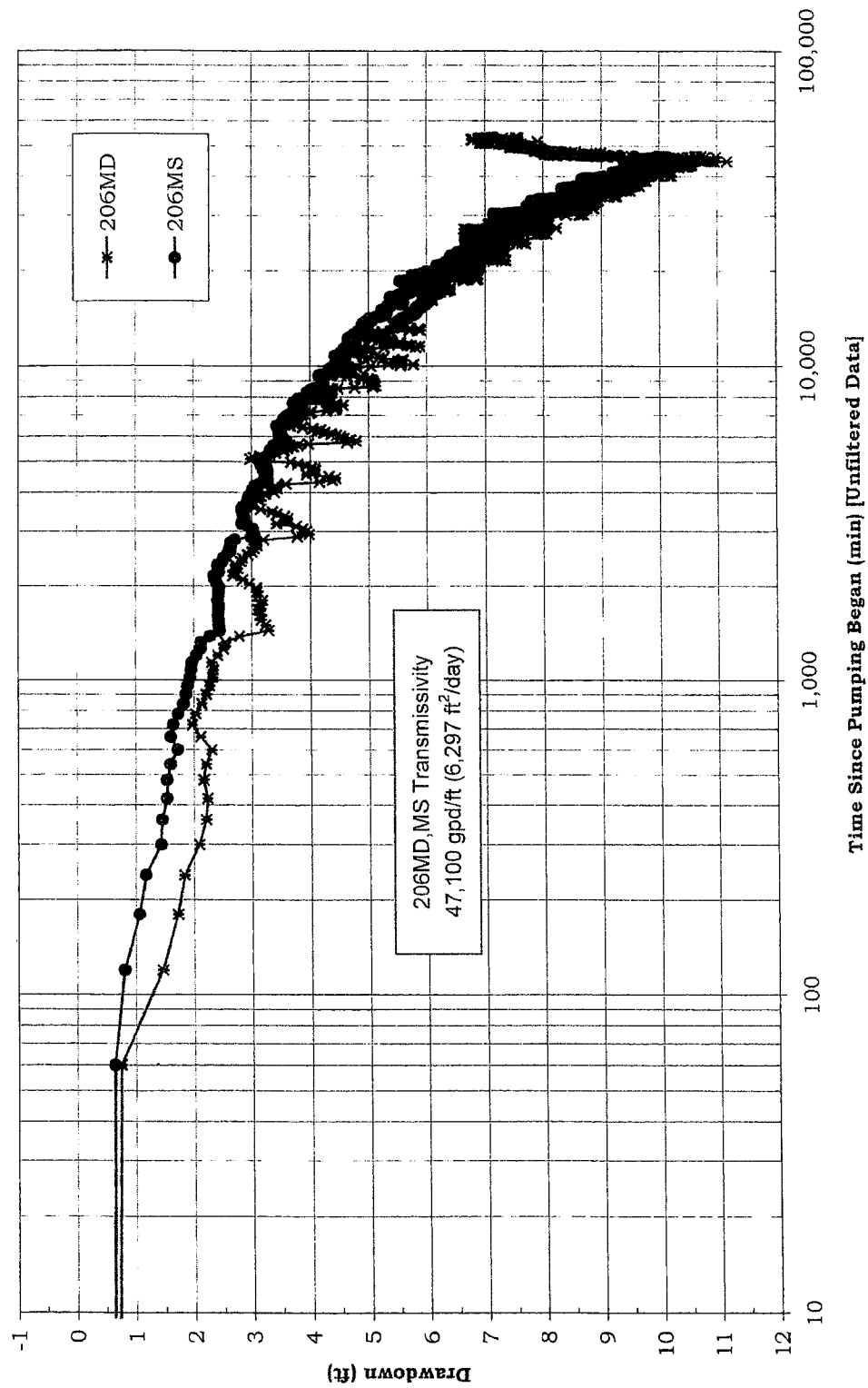
Mt. Hope Project - Eureka, NV
 206T Constant Rate Test, April 8 - May 12, 2008



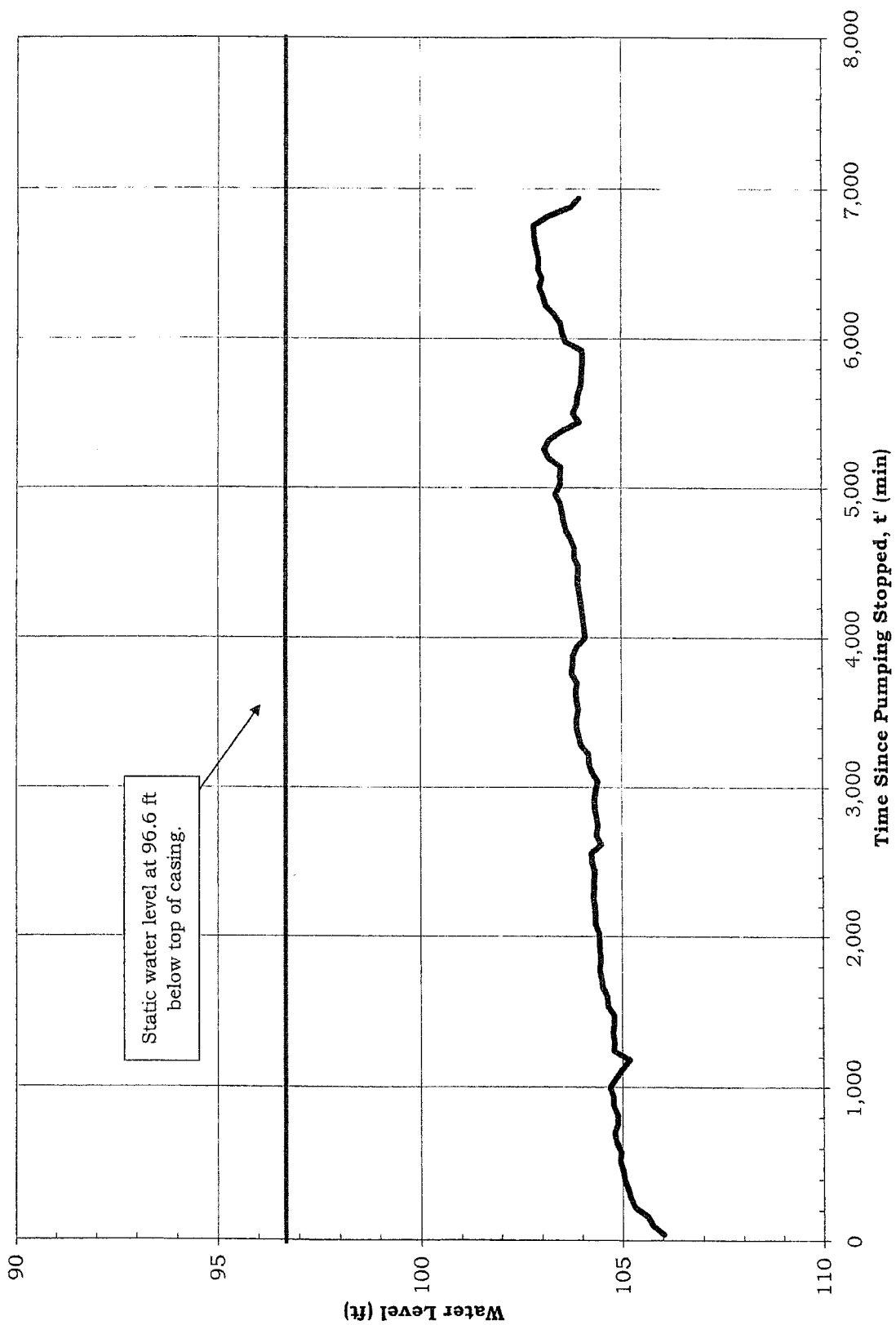
Mt. Hope Project - Eureka, NV
 206T Constant Rate Test, April 8 - May 12, 2008

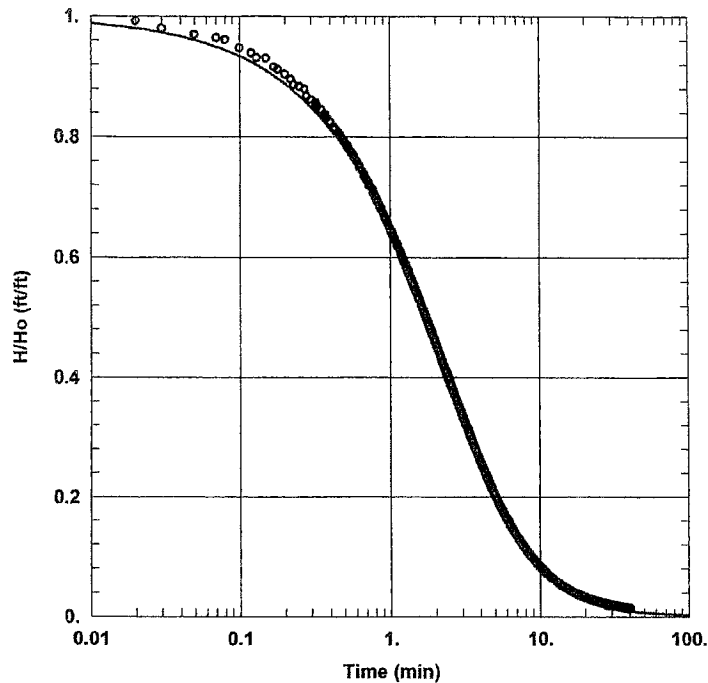


Mt. Hope Project - Eureka, NV
206T Constant Rate Test, April 8 - May 12, 2008



Mt. Hope Project - Eureka, NV
Constant Rate Test (206T Recovery), May 12 - 17, 2008





FALLING HEAD TEST 203MS

Data Set: \...203MS Falling Head.aqt

Date: 07/07/09

Time: 10:39:35

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Mount Hope

Location: Kobeh Valley

Test Well: 209MD

Test Date: November 2007

AQUIFER DATA

Saturated Thickness: 360. ft

WELL DATA (203MS)

Initial Displacement: 73.79 ft

Static Water Column Height: 82.05 ft

Total Well Penetration Depth: 82.05 ft

Screen Length: 50. ft

Casing Radius: 0.08333 ft

Well Radius: 0.25 ft

Gravel Pack Porosity: 0.2

SOLUTION

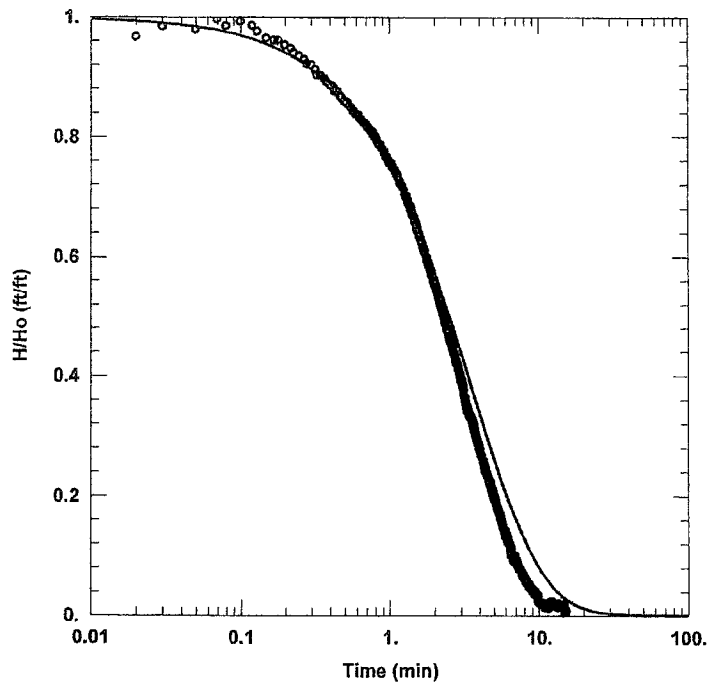
Aquifer Model: Confined

Solution Method: KGS Model

Kr = 0.1417 ft/day

Ss = 2.778E-6 ft⁻¹

Kz/Kr = 0.01



WELL TEST ANALYSIS

Data Set: \...\203t Falling Head Early Time.aqt

Date: 07/07/09

Time: 10:41:19

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Falling Head Tests

Location: Kobeh Valley

Test Well: 203T

Test Date: Nov 17 2007

AQUIFER DATA

Saturated Thickness: 800. ft

WELL DATA (203T)

Initial Displacement: 26.02 ft

Static Water Column Height: 760. ft

Total Well Penetration Depth: 760. ft

Screen Length: 500. ft

Casing Radius: 0.333 ft

Well Radius: 0.5 ft

Gravel Pack Porosity: 0.2

SOLUTION

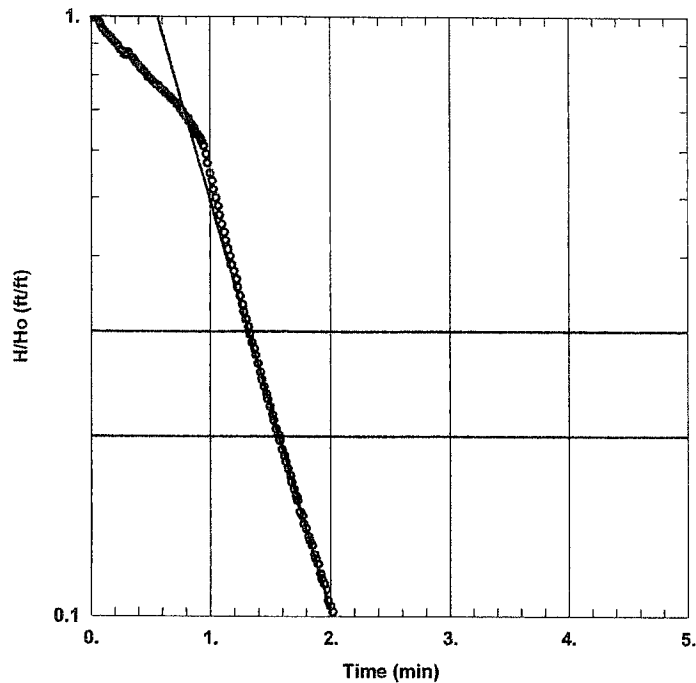
Aquifer Model: Confined

Solution Method: KGS Model

Kr = 0.5019 ft/day

Ss = 1.25E-13 ft⁻¹

Kz/Kr = 0.0001



FALLING HEAD TEST 204P

Data Set: Z:\...204 Falling Head.aqt

Date: 07/07/09

Time: 14:13:52

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Mount Hope

Location: Kobeh Valley

Test Well: 204

Test Date: November 2007

AQUIFER DATA

Saturated Thickness: 450. ft

Anisotropy Ratio (K_z/K_r): 0.5

WELL DATA (204P)

Initial Displacement: 4.42 ft

Static Water Column Height: 150. ft

Total Well Penetration Depth: 150. ft

Screen Length: 50. ft

Casing Radius: 0.08333 ft

Well Radius: 0.25 ft

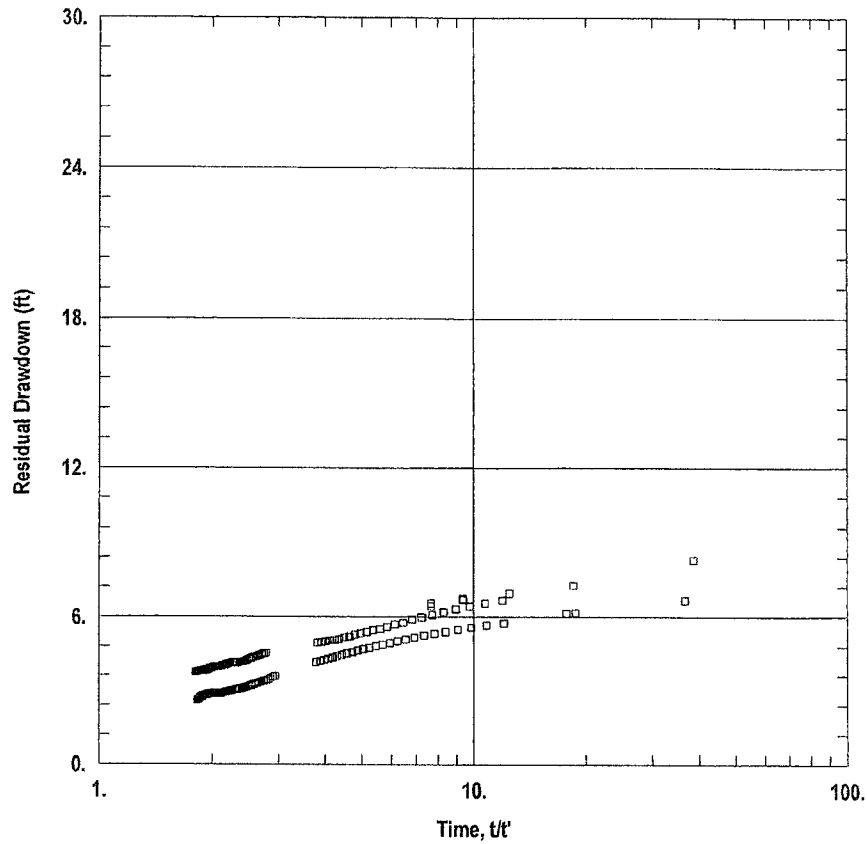
SOLUTION

Aquifer Model: Confined

Solution Method: Bouwer-Rice

$K = 0.7264$ ft/day

$y_0 = 10.74$ ft



WELL TEST ANALYSIS

Data Set: C:\... \206T_DaysboundariesX2206MD.aqt

Date: 06/26/09

Time: 08:07:32

PROJECT INFORMATION

Company: InterFlow

Test Well: 206T

AQUIFER DATA

Saturated Thickness: 670. ft

Anisotropy Ratio (K_z/K_r): 1.

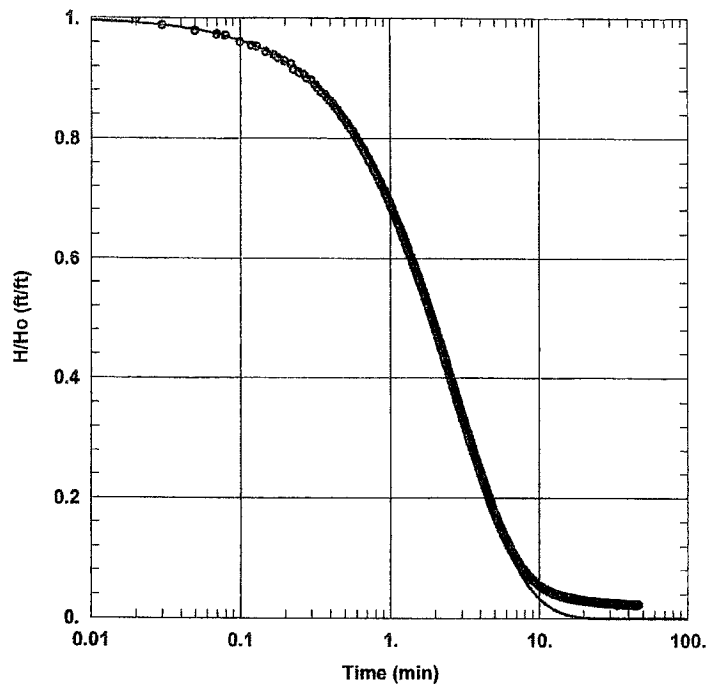
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
206T	1843680	14434590

Observation Wells

Well Name	X (ft)	Y (ft)
□ 206MD	1843753	14434599
□ 205MD	1846925	14429684



FALLING HEAD TEST 209MD

Data Set: \...\209MD Falling Head.aqt

Date: 07/07/09

Time: 10:51:14

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Mount Hope

Location: Kobeh Valley

Test Well: 209MD

Test Date: November 2007

AQUIFER DATA

Saturated Thickness: 360. ft

WELL DATA (209MD)

Initial Displacement: 91.43 ft

Static Water Column Height: 360. ft

Total Well Penetration Depth: 360. ft

Screen Length: 50. ft

Casing Radius: 0.08333 ft

Well Radius: 0.25 ft

Gravel Pack Porosity: 0.2

SOLUTION

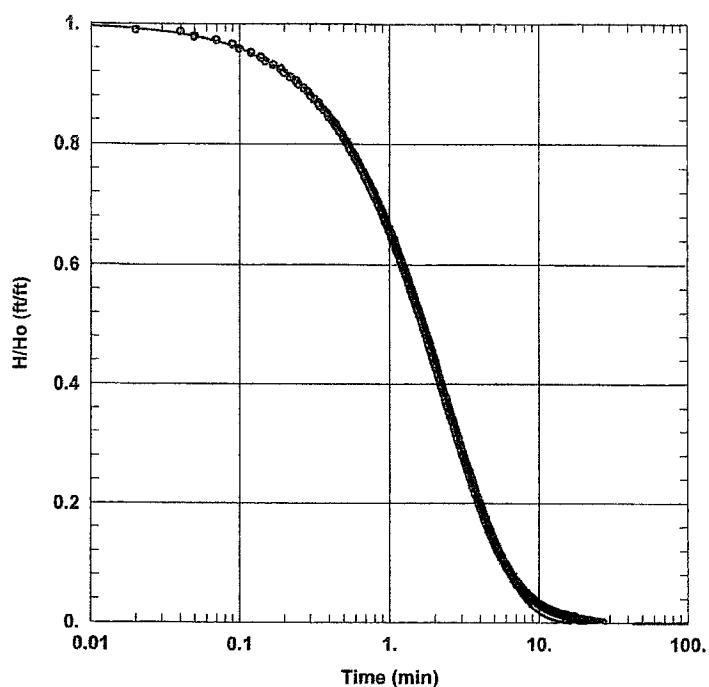
Aquifer Model: Confined

Solution Method: KGS Model

Kr = 0.2901 ft/day

Ss = 5.284E-12 ft⁻¹

Kz/Kr = 0.01



FALLING HEAD TEST 209MS

Data Set: \...\209MS Falling Head.aqt

Date: 07/06/09

Time: 13:53:24

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Mount Hope

Location: Kobeh Valley

Test Well: 209MD

Test Date: November 2007

AQUIFER DATA

Saturated Thickness: 360 ft

WELL DATA (209MS)

Initial Displacement: 73.32 ft

Total Well Penetration Depth: 82.05 ft

Casing Radius: 0.08333 ft

Static Water Column Height: 82.05 ft

Screen Length: 50 ft

Well Radius: 0.25 ft

Gravel Pack Porosity: 0.2

SOLUTION

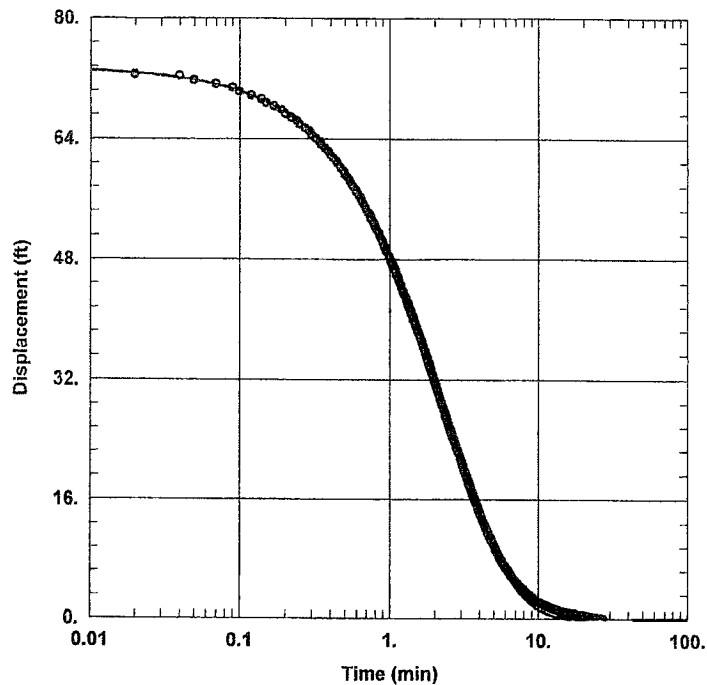
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 0.3426 ft/day

Ss = 2.778E-13 ft⁻¹

Kz/Kr = 0.001



FALLING HEAD TEST 209MS

Data Set: \...209MS Falling Head_KGS_Model.aqt

Date: 06/26/09

Time: 08:59:52

PROJECT INFORMATION

Company: Bugo

Client: General Moly

Project: Mount Hope

Location: Kobeh Valley

Test Well: 209MD

Test Date: November 2007

AQUIFER DATA

Saturated Thickness: 360. ft

WELL DATA (209MS)

Initial Displacement: 73.32 ft

Static Water Column Height: 82.05 ft

Total Well Penetration Depth: 82.05 ft

Screen Length: 50. ft

Casing Radius: 0.08333 ft

Well Radius: 0.25 ft

Gravel Pack Porosity: 0.2

SOLUTION

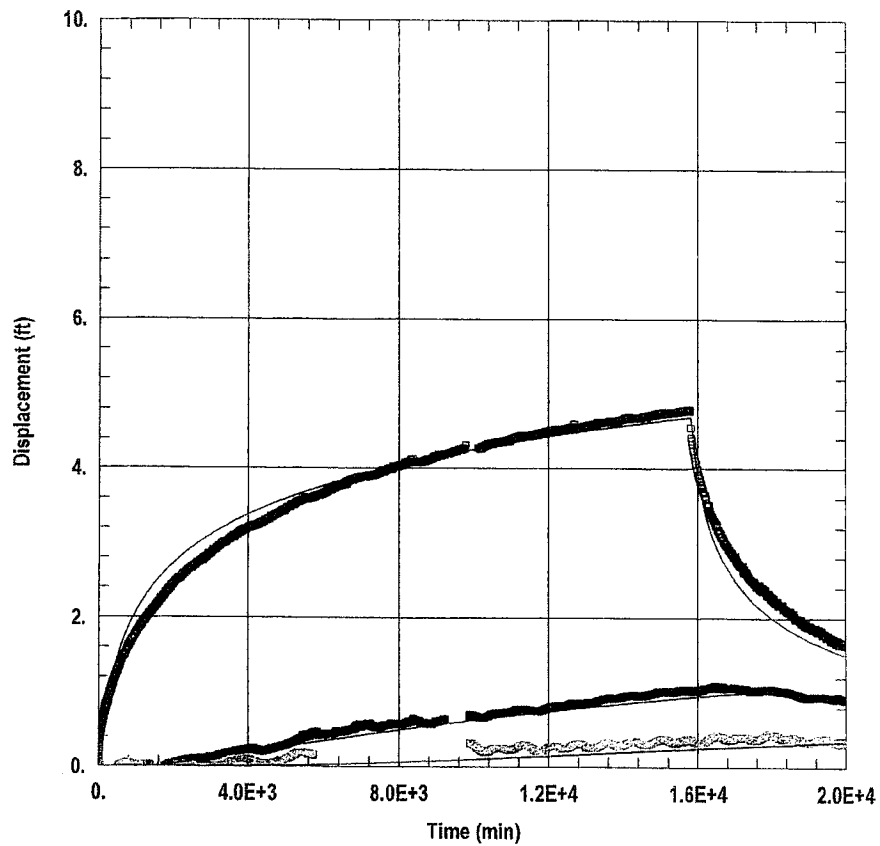
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 0.1977 ft/day

Ss = 2.778E-13 ft⁻¹

Kz/Kr = 1.



WELL TEST ANALYSIS

Data Set: Z:\...\214TOb_wells_alldata.aqt

Date: 06/25/09

Time: 11:01:44

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
214T	1841371.79	14440772.06

Observation Wells

Well Name	X (ft)	Y (ft)
□ 215M	1841693.6	14441553.63
□ 206MS	1843752.8	14434598.81
□ 205MS	1846291.61	14429688.61

SOLUTION

Aquifer Model: Confined

Solution Method: Theis

T = 7021.9 ft²/day

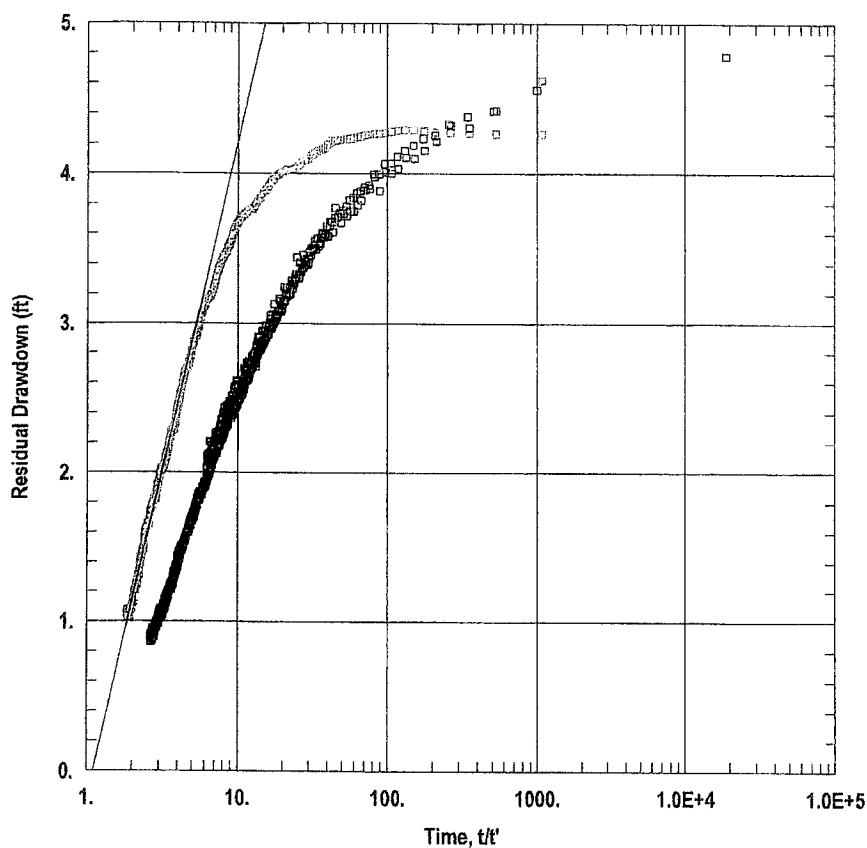
S = 0.001922

Kz/Kr = 1.

b = 410. ft

001922

JA2088



WELL TEST ANALYSIS

Data Set: F:\Final_KobehWellFieldAnalysis\215Mrcovery.aqt

Date: 06/02/09

Time: 12:56:34

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

AQUIFER DATA

Saturated Thickness: 550 ft

Anisotropy Ratio (Kz/Kr): 1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
214T	1841371.79	14440772.06

Observation Wells

Well Name	X (ft)	Y (ft)
□ 215M	1841693.6	14441553.63
□ 213M	1840499.63	14444466.77
□ 214M	1841368.69	14440744.11

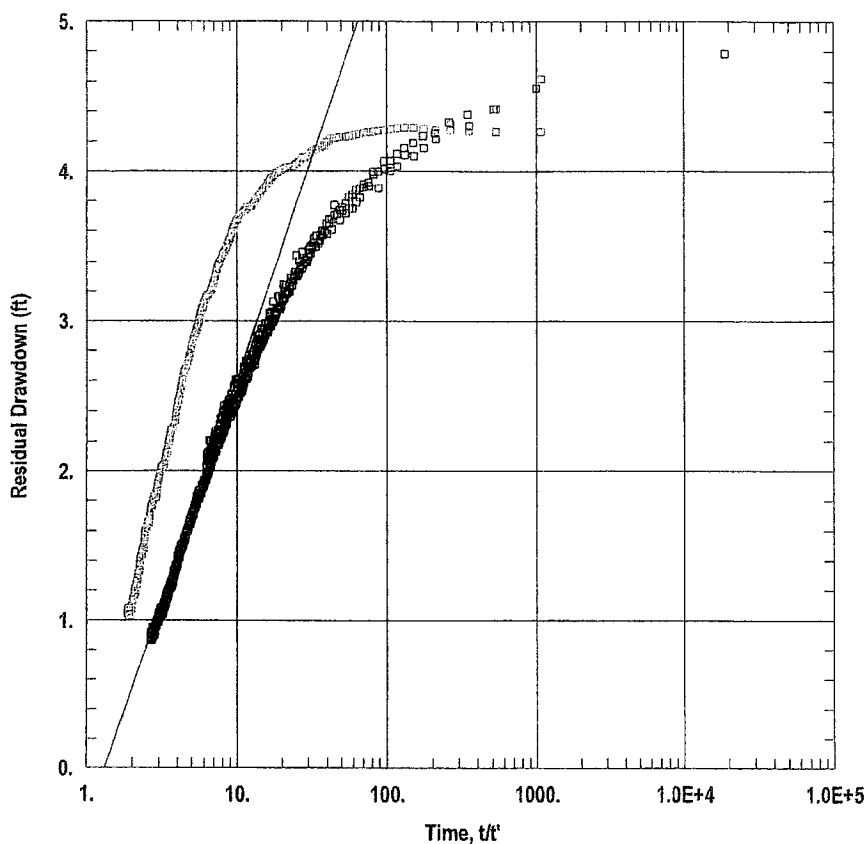
SOLUTION

Aquifer Model: Confined

Solution Method: Theis (Recovery)

T = 3457.8 ft²/day

S/S' = 1.101



WELL TEST ANALYSIS

Data Set: F:\Final_KobehWellFieldAnalysis\215Mrcovery.agt

Date: 06/02/09

Time: 12:55:52

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

AQUIFER DATA

Saturated Thickness: 550. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
214T	1841371.79	14440772.06

Observation Wells

Well Name	X (ft)	Y (ft)
□ 215M	1841693.6	14441553.63
□ 213M	1840499.63	14444466.77
□ 214M	1841368.69	14440744.11

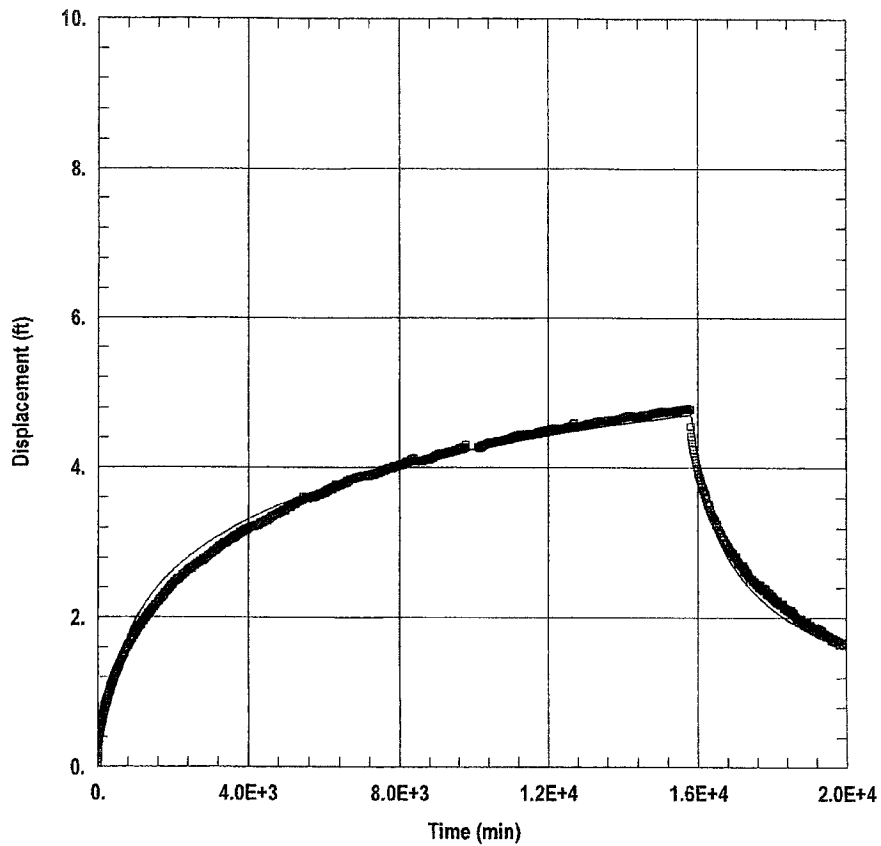
SOLUTION

Aquifer Model: Confined

Solution Method: Theis (Recovery)

$T = 5142.3 \text{ ft}^2/\text{day}$

$S/S' = 1.311$



WELL TEST ANALYSIS

Data Set: F:\Final_KobehWellFieldAnalysis\215Malldata.agt

Date: 06/03/09

Time: 15:53:30

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
214T	1841371.79	14440772.06

Observation Wells

Well Name	X (ft)	Y (ft)
215M	1841693.6	14441553.63

SOLUTION

Aquifer Model: Confined

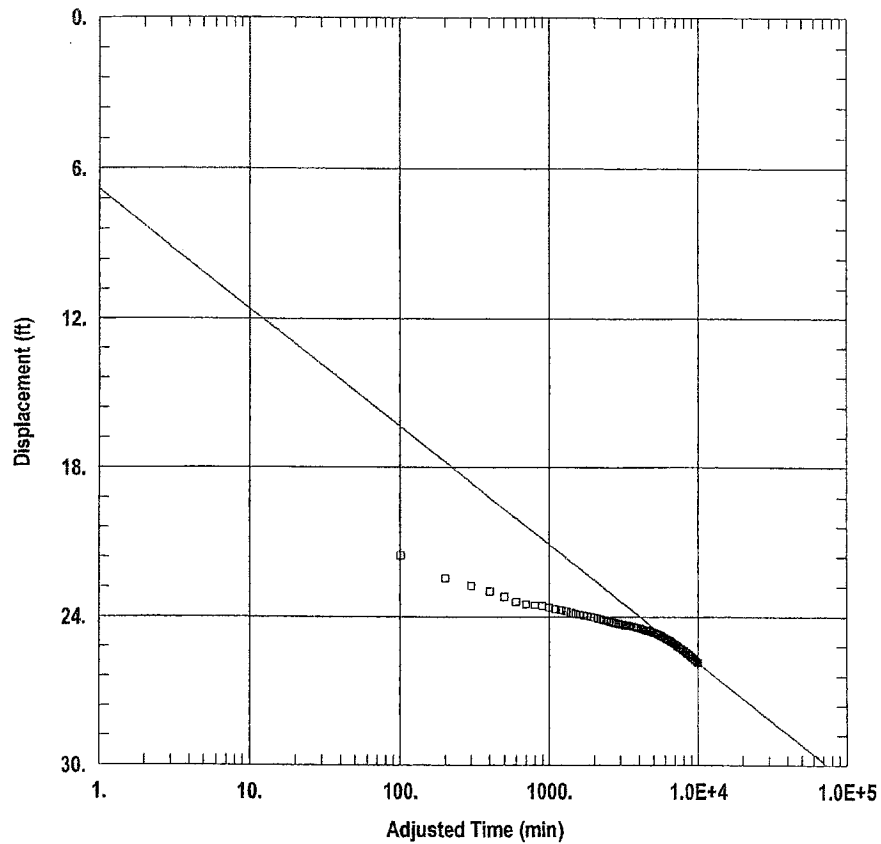
Solution Method: Theis

T = 6621.1 ft²/day

S = 0.002357

Kz/Kr = 1.

b = 550. ft



WELL TEST ANALYSIS

Data Set: \...220ConstantRate_SmoothedData.aqt

Date: 07/07/09

Time: 09:20:34

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 220T_Step

AQUIFER DATA

Saturated Thickness: 800. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
220T	1826782.056	14424795.1

Observation Wells

Well Name	X (ft)	Y (ft)
□ 220M	1826762.37	14424841.04

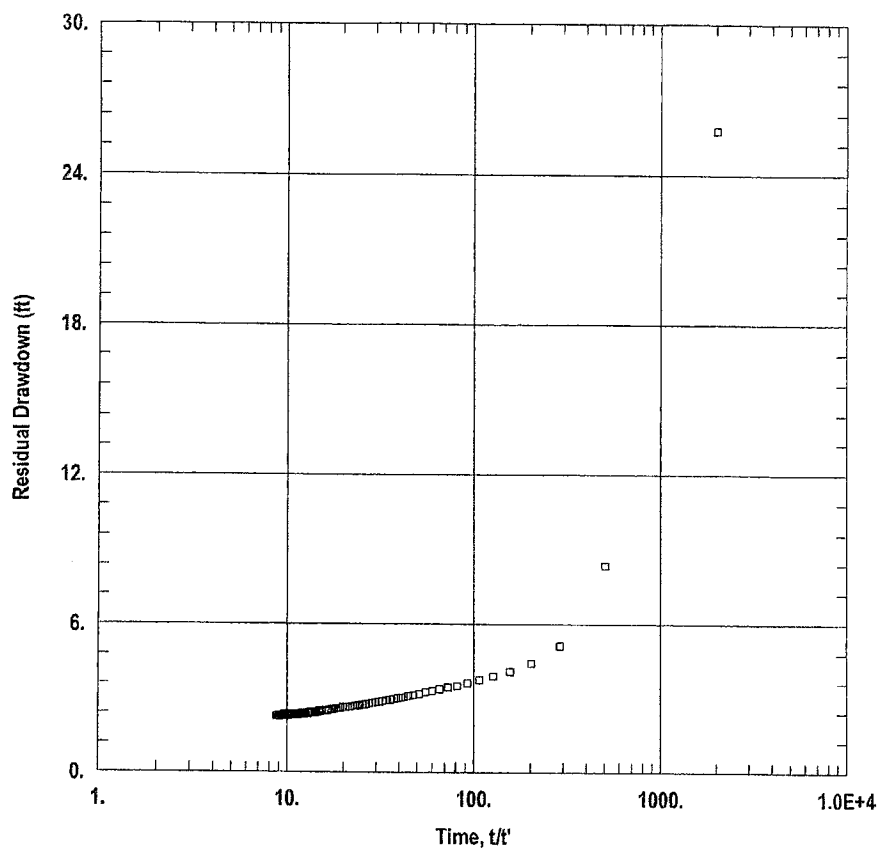
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 3704.3 ft²/day

S = 8.609E-5



WELL TEST ANALYSIS

Data Set: F:\Work\220ConstantRate.aqt

Date: 06/26/09

Time: 10:11:09

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 220T_Step

AQUIFER DATA

Saturated Thickness: 390. ft

Anisotropy Ratio (K_z/K_r): 1.

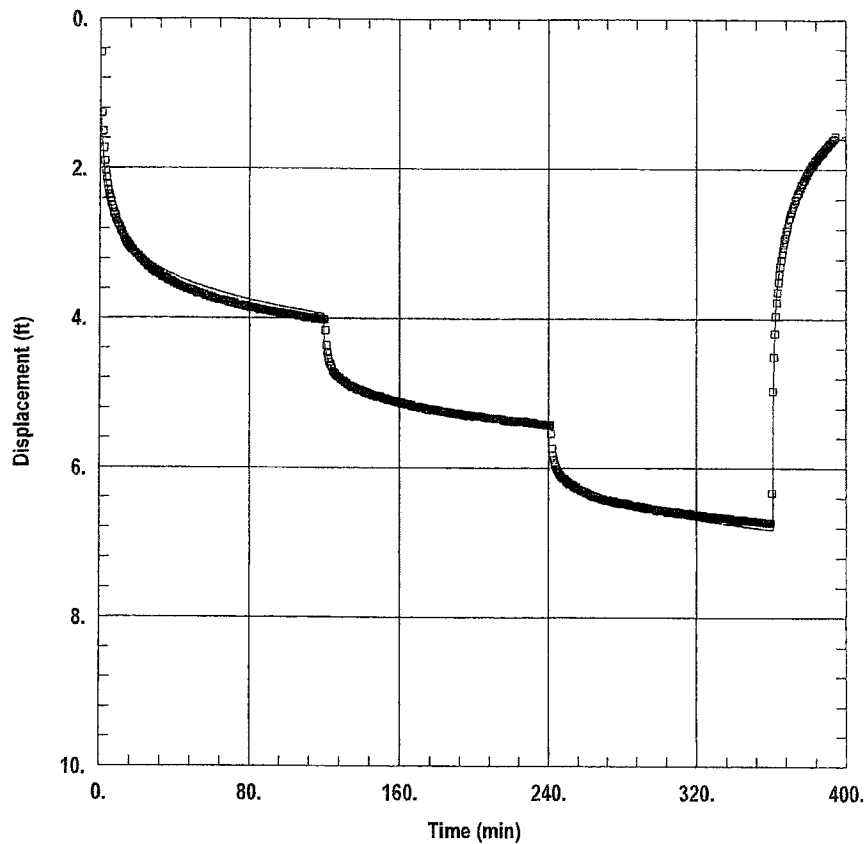
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
220T	1826689.18	14424058.11

Observation Wells

Well Name	X (ft)	Y (ft)
220M	1826674.29	14424094.94



WELL TEST ANALYSIS

Data Set: \...1222Step_222MOB.aqt

Date: 06/25/09

Time: 08:44:29

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
222T	1844089.331	14416322.41

Observation Wells

Well Name	X (ft)	Y (ft)
222M	1844072.926	14416342.1

SOLUTION

Aquifer Model: Confined

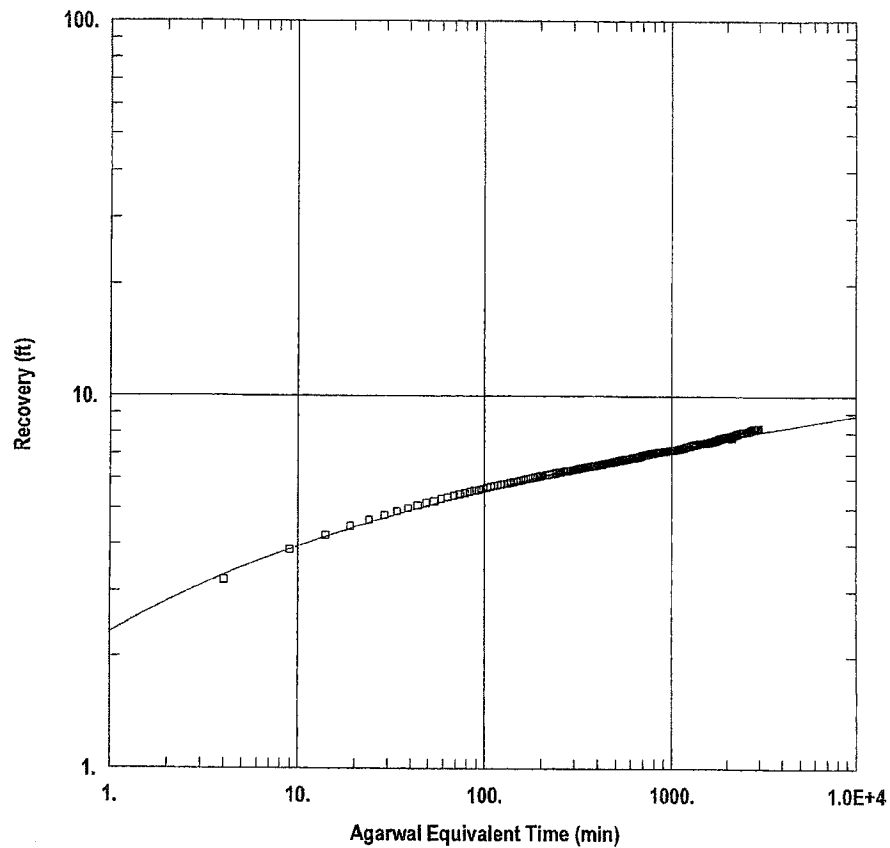
Solution Method: Theis

T = $1.292E+4$ ft²/day

S = 0.0008542

Kz/Kr = 1.

b = 690. ft



WELL TEST ANALYSIS

Data Set: F:\MayJuneAquiferAnalysis\222ConstantRateTheis.aqt

Date: 05/27/09

Time: 14:22:50

PROJECT INFORMATION

Company: InterFlow

Test Well: 222

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
222T	1844089.331	14416322.41

Observation Wells

Well Name	X (ft)	Y (ft)
□ 222M	1844072.926	14416342.1

SOLUTION

Aquifer Model: Confined

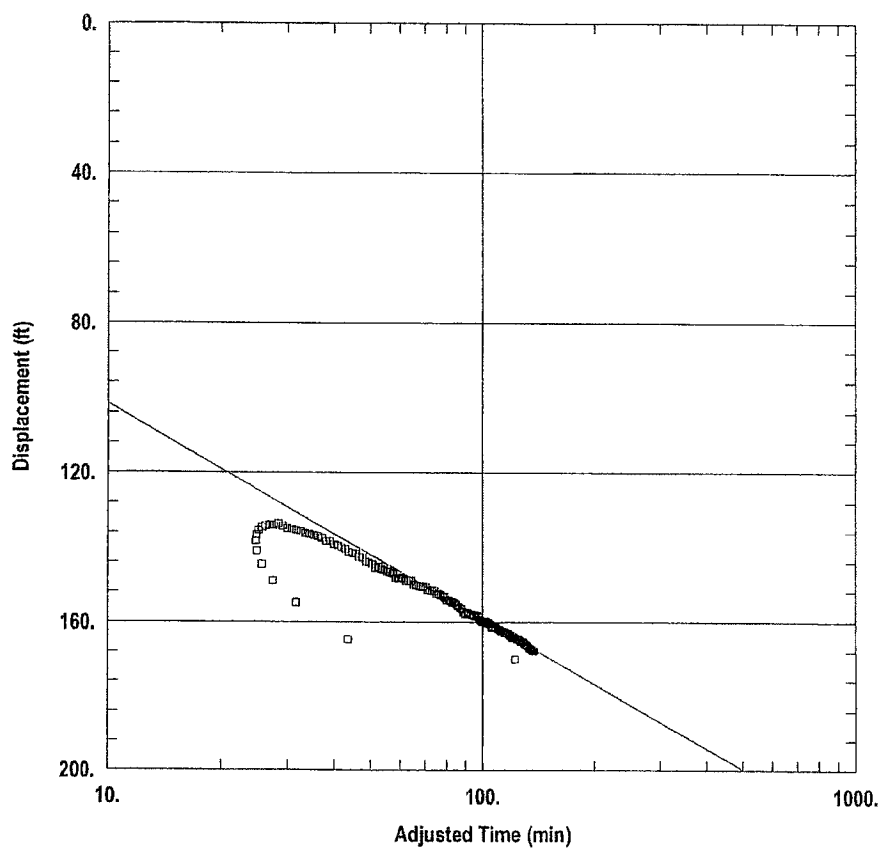
Solution Method: Theis

T = 1.289E+4 ft²/day

S = 0.001199

Kz/Kr = 1.

b = 690. ft



WELL TEST ANALYSIS

Data Set: \...223T_CJ_Drawdown.aqt

Date: 07/06/09

Time: 13:03:37

PROJECT INFORMATION

Company: InterFlow

Test Well: 223

AQUIFER DATA

Saturated Thickness: 600. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
223t	0	0	□ 223t	0	0

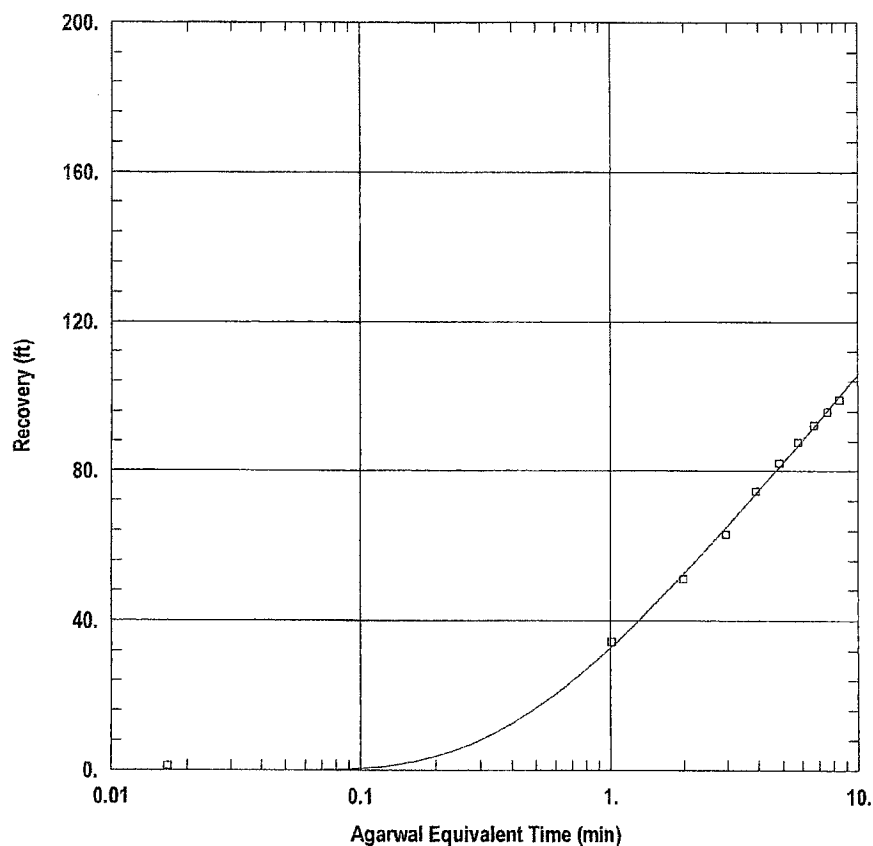
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

$T = 73.33 \text{ ft}^2/\text{day}$

$S = 0.04418$



WELL TEST ANALYSIS

Data Set: C:\Documents and Settings\Jack Childress\My Documents\223t.aqt

Date: 06/25/09

Time: 09:42:13

PROJECT INFORMATION

Company: InterFlow

Test Well: 223

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
223t	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ 223t	0	0

SOLUTION

Aquifer Model: Confined

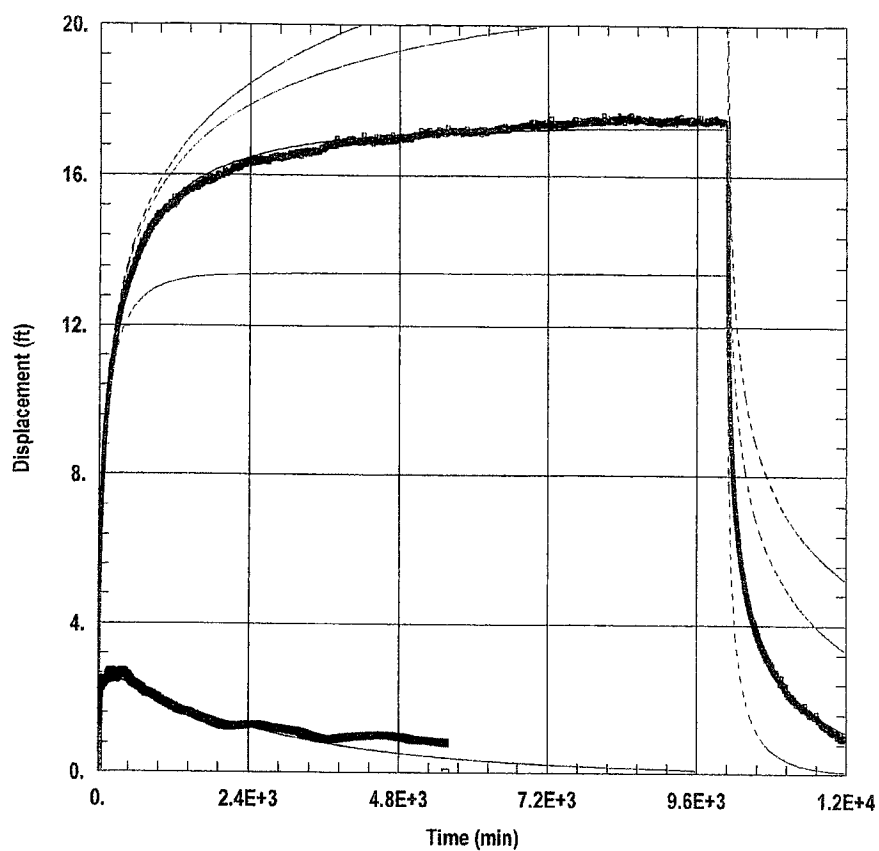
Solution Method: Theis

T = 51.99 ft²/day

S = 0.09376

Kz/Kr = 1.

b = 600. ft



WELL TEST ANALYSIS

Data Set: Z:\...\228M_Leaky_Drawdown_and_recovery.aqt

Date: 06/25/09

Time: 10:58:03

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 228T_Step

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
228T	1839442.56	14431124.4

Observation Wells

Well Name	X (ft)	Y (ft)
228M	1839490.05	14431109.74

SOLUTION

Aquifer Model: Leaky

Solution Method: Hantush-Jacob

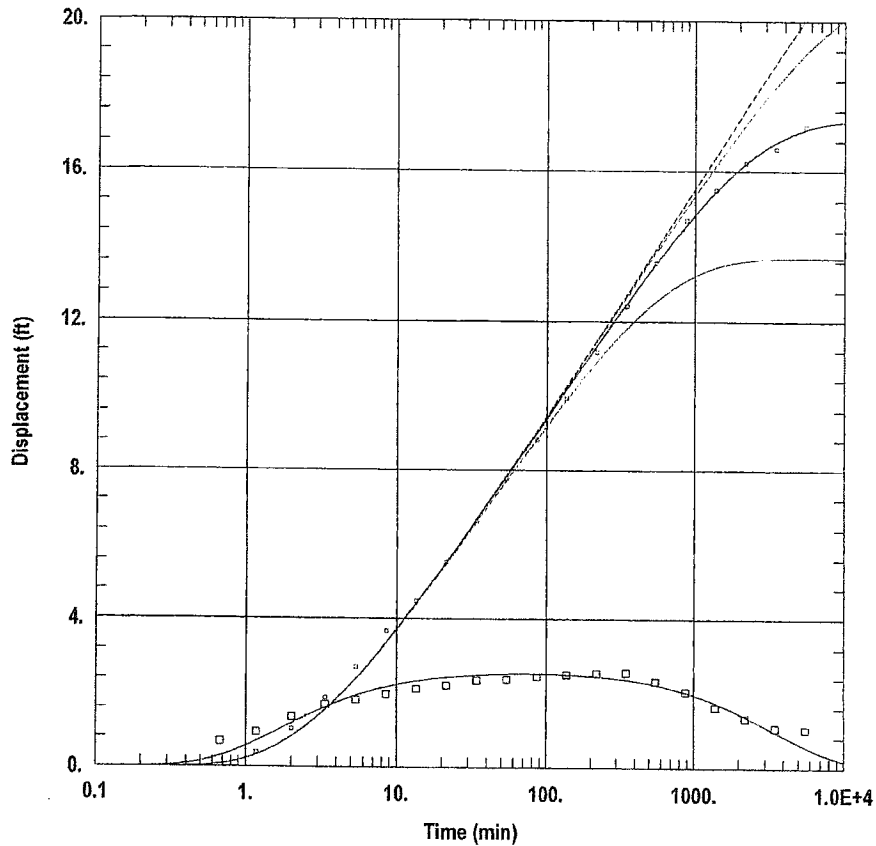
T = 2438.1 ft²/day

S = 0.005465

1/B = 0.001063 ft⁻¹

Kz/Kr = 1.

b = 550. ft



WELL TEST ANALYSIS

Data Set: F:\Final_KobehWellFieldAnalysis\228M_Leaky_Filtered.aqt

Date: 05/27/09

Time: 10:08:10

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 228T_Step

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
228T	1839532.022	14431162.38

Observation Wells

Well Name	X (ft)	Y (ft)
228M	1839591.08	14431145.97

SOLUTION

Aquifer Model: Leaky

Solution Method: Hantush-Jacob

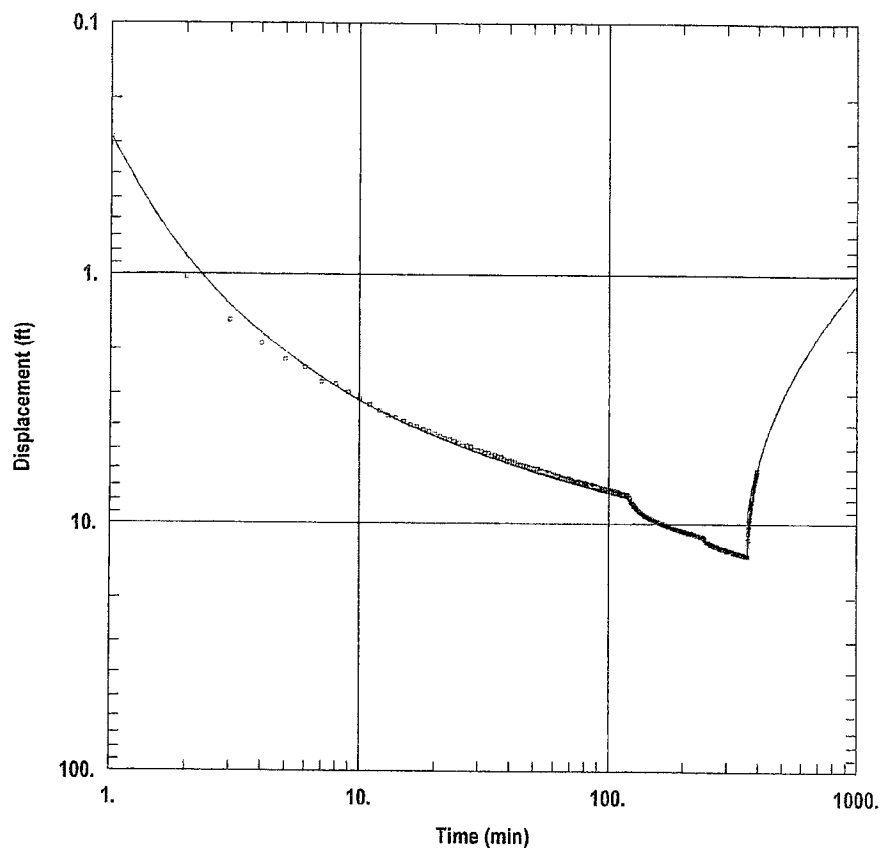
T = 2596. ft²/day

S = 0.003111

1/B = 0.0006994 ft⁻¹

Kz/Kr = 0.001

b = 550. ft



WELL TEST ANALYSIS

Data Set: C:\Documents and Settings\Jack Childress\My Documents\228T_Step.aqt
 Date: 05/27/09 Time: 10:05:12

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.
 Test Well: 228T_Step

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
228T	1839535.303	14431865.66	228M	1839584.518	14431845.97

SOLUTION

Aquifer Model: Confined

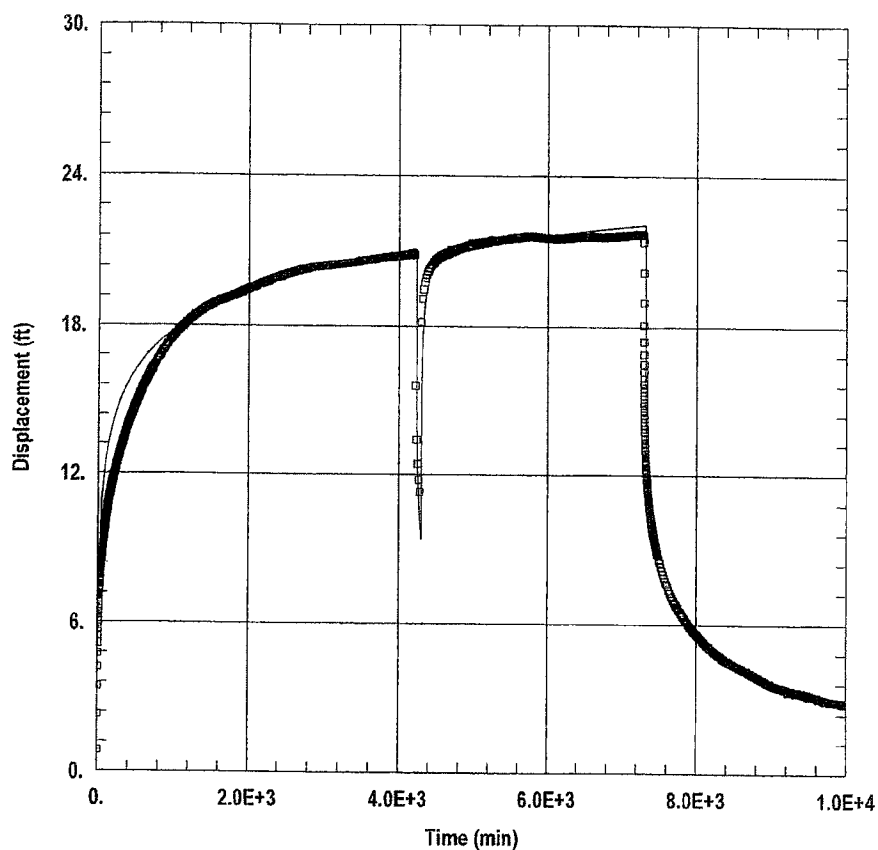
Solution Method: Theis

T = 2767.5 ft²/day

S = 0.003435

Kz/Kr = 1.

b = 550. ft



WELL TEST ANALYSIS

Data Set: \...\229M_dd.aqt

Date: 07/06/09

Time: 16:34:12

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 228T_Step

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
229T	1843061.435	14430607.86

Observation Wells

Well Name	X (ft)	Y (ft)
229M	1843077.08	14430638.3

SOLUTION

Aquifer Model: Confined

Solution Method: Theis

T = 3323.7 ft²/day

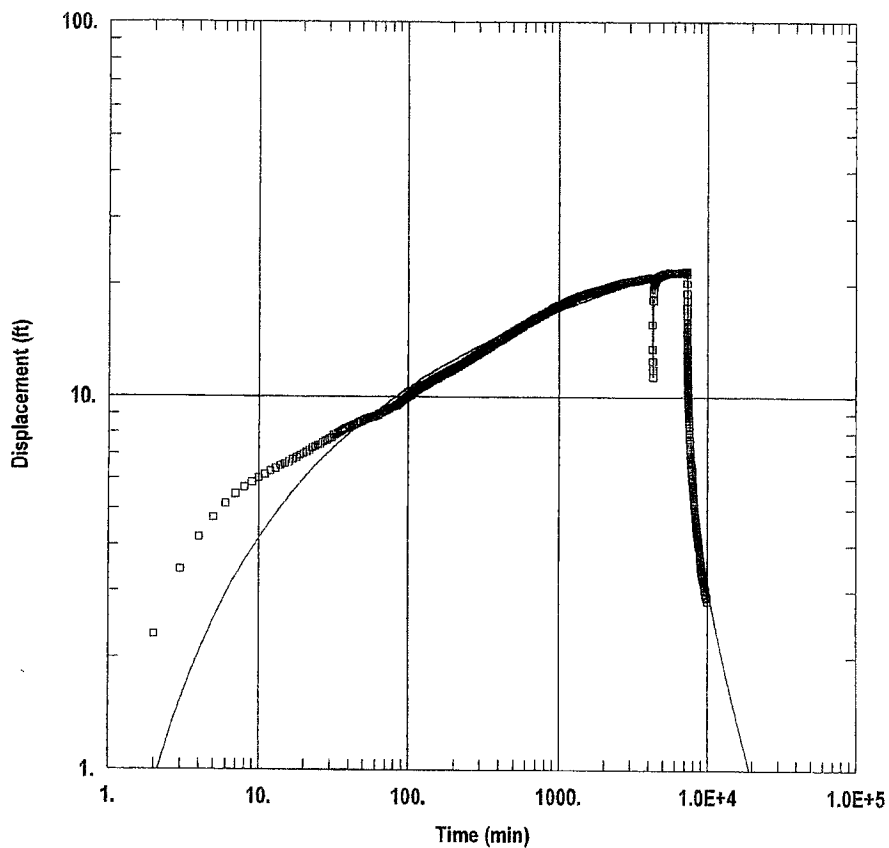
S = 0.0018

Kz/Kr = 0.01

b = 550. ft

001935

JA2101



WELL TEST ANALYSIS

Data Set: \...\229M_dd_Neuman.aqt
Date: 07/07/09

Time: 08:41:58

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.
Test Well: 228T_Step

AQUIFER DATA

Saturated Thickness: 550. ft

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
229T	1843061.435	14430607.86

Observation Wells

Well Name	X (ft)	Y (ft)
229M	1843077.08	14430638.3

SOLUTION

Aquifer Model: Unconfined

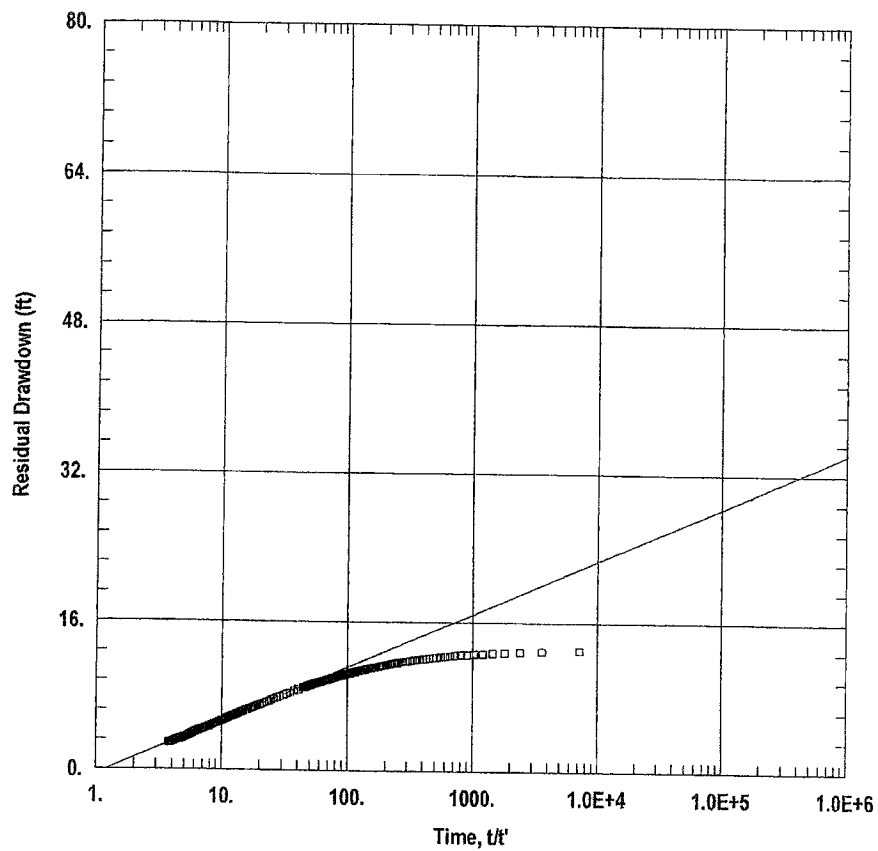
Solution Method: Neuman

T = 2533.1 ft²/day

S = 0.009727

Sy = 0.1122

Kz/Kr = 0.01065



WELL TEST ANALYSIS

Data Set: F:\MayJuneAquiferAnalysis\229M.agt

Date: 06/22/09

Time: 11:17:03

PROJECT INFORMATION

Company: InterFlow Hydrology, Inc.

Test Well: 228T_Step

AQUIFER DATA

Saturated Thickness: 550. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
229T	1843061.435	14430607.86

Observation Wells

Well Name	X (ft)	Y (ft)
□ 229M	1843077.08	14430638.3

SOLUTION

Aquifer Model: Confined

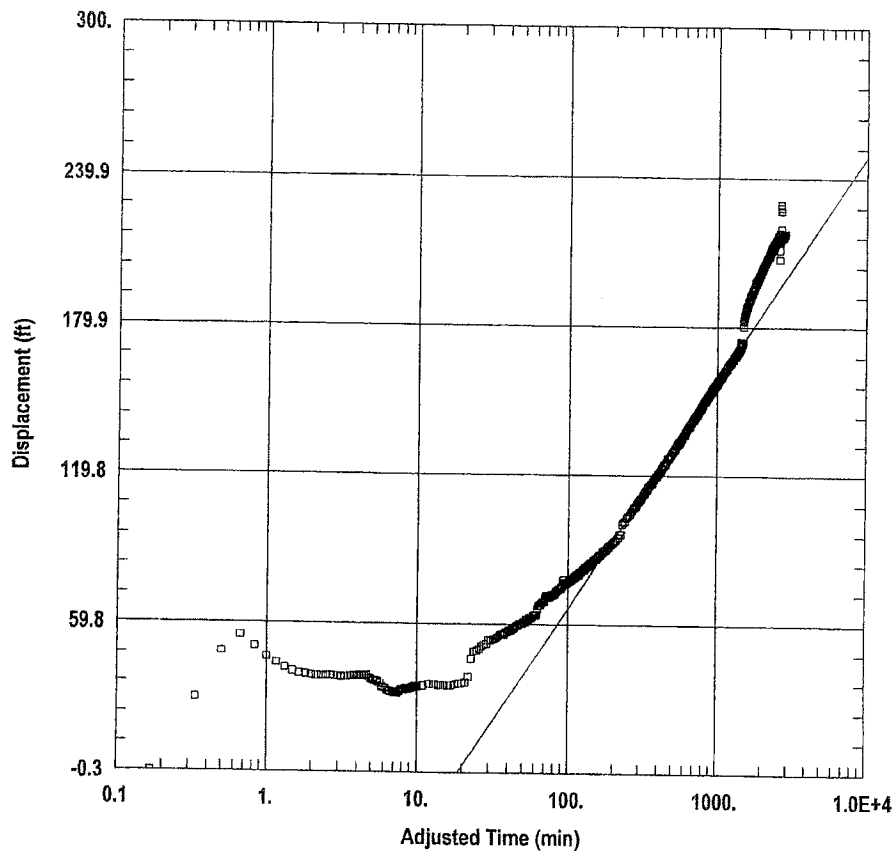
Solution Method: Theis (Recovery)

$T = 2989.9 \text{ ft}^2/\text{day}$

$S/S' = 1.212$

001937

JA2103



WELL TEST ANALYSIS

Data Set: F:\MayJuneAquiferAnalysis\Finals\TFX-2.aqt

Date: 06/22/09

Time: 11:10:29

PROJECT INFORMATION

Company: InterFlow

Client: GMI

Location: Kobreh Valley

Test Well: TFX-2

AQUIFER DATA

Saturated Thickness: 360. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
TFX-2	0	0

Observation Wells

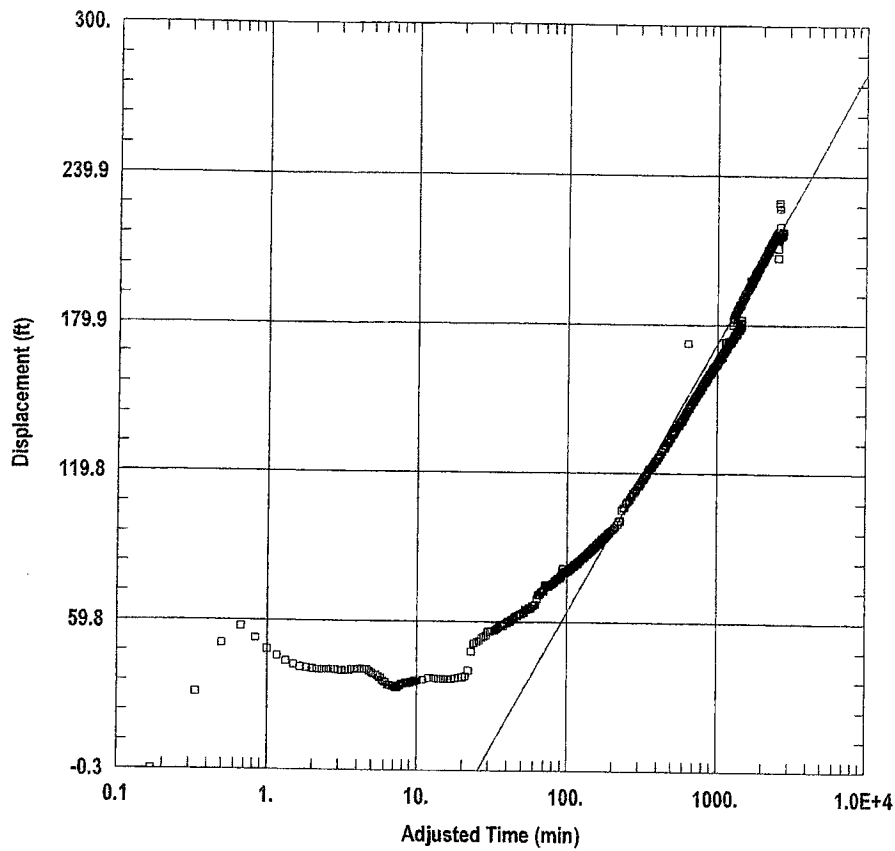
Well Name	X (ft)	Y (ft)
TFX-2	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

$T = 56.79 \text{ ft}^2/\text{day}$



WELL TEST ANALYSIS

Data Set: \...\TFX-2_latetime_drawdown.aqt

Date: 07/06/09

Time: 10:53:28

PROJECT INFORMATION

Company: InterFlow

Client: GMI

Location: Kobeh Valley

Test Well: TFX-2

AQUIFER DATA

Saturated Thickness: 360. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
TFX-2	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
TFX-2	0	0

SOLUTION

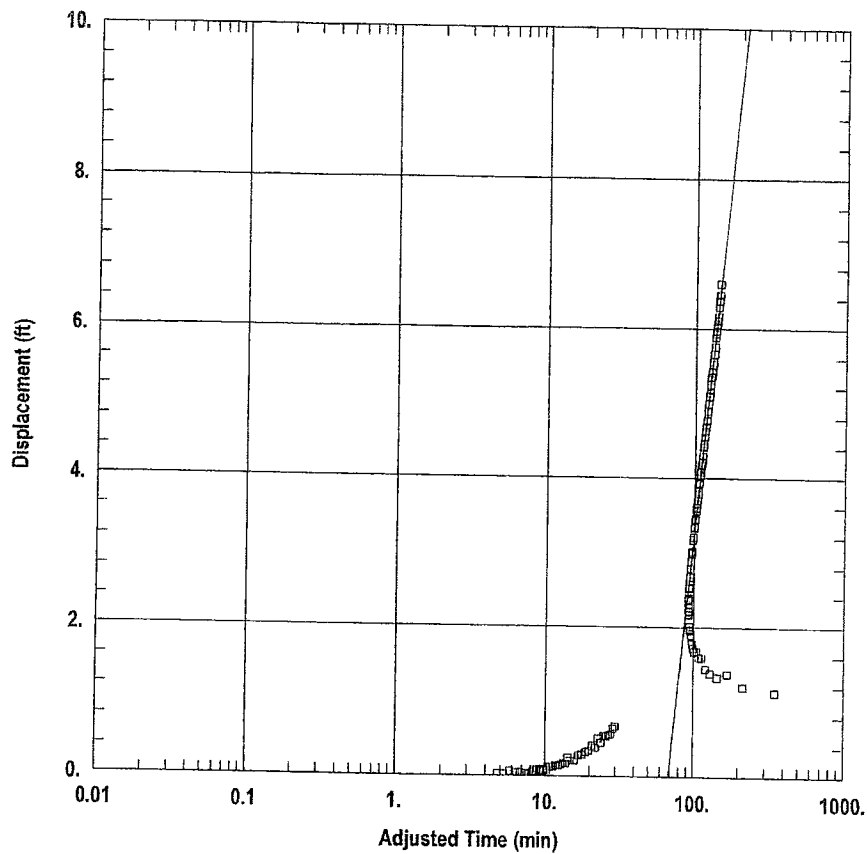
Aquifer Model: Confined

Solution Method: Cooper-Jacob

$T = 50.12 \text{ ft}^2/\text{day}$

001939

JA2105



WELL TEST ANALYSIS

Data Set: F:\MayJuneAquiferAnalysis\235P_Ob.aqt

Date: 05/27/09

Time: 10:43:04

PROJECT INFORMATION

Company: InterFlow

Client: GMI

Location: Kobeh Valley

Test Well: TMB

AQUIFER DATA

Saturated Thickness: 500. ft

Anisotropy Ratio (K_z/K_r): 0.005

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
TM-B	1883279.7	14422152.5

Observation Wells

Well Name	X (ft)	Y (ft)
□ 235P	1883275.2	14422216.7

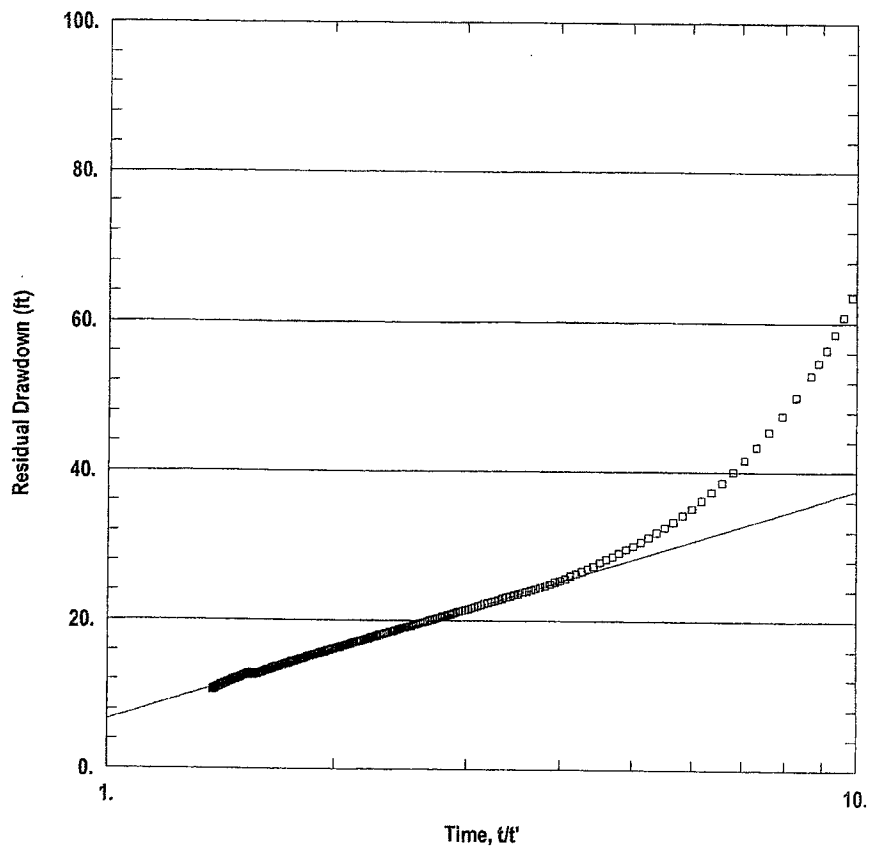
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

$T = 105. \text{ ft}^2/\text{day}$

$S = 0.002723$



WELL TEST ANALYSIS

Data Set: F:\MayJuneAquiferAnalysis\Finals\TM-B_Recovery.aqt

Date: 06/22/09

Time: 11:09:07

PROJECT INFORMATION

Company: InterFlow

Client: GMI

Location: Kobeh Valley

Test Well: TMB

AQUIFER DATA

Saturated Thickness: 500 ft

Anisotropy Ratio (Kz/Kr): 0.005

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
TM-B	1883279.7	14422152.5

Observation Wells

Well Name	X (ft)	Y (ft)
□ TM-B	1883279.7	14422152.5

SOLUTION

Aquifer Model: Confined

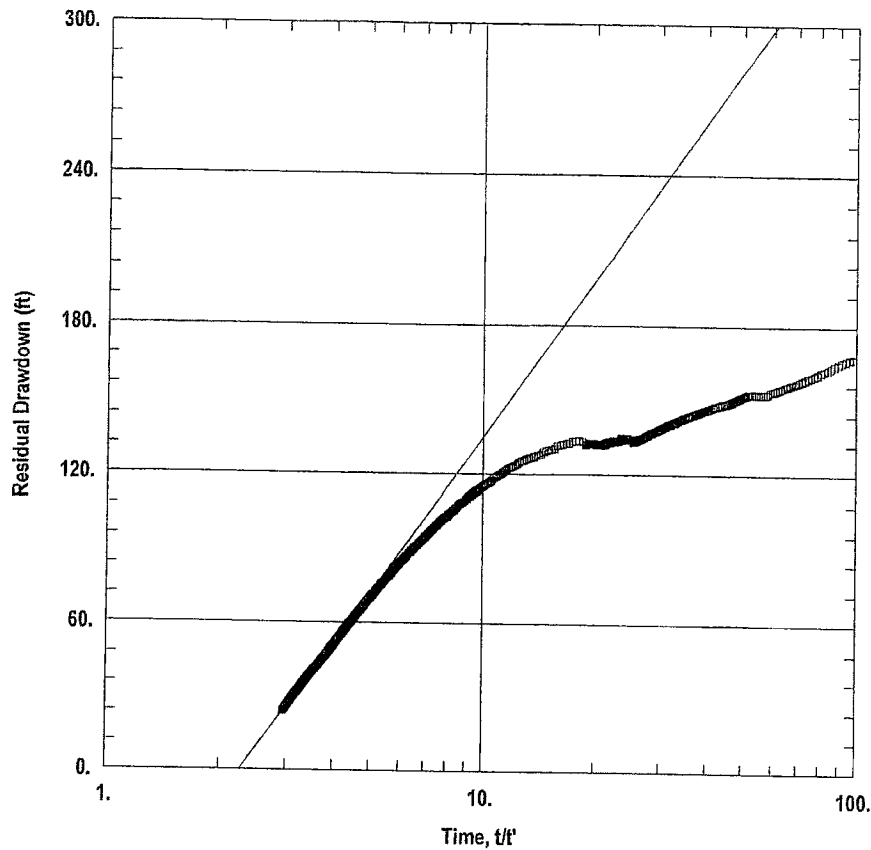
Solution Method: Theis (Recovery)

T = 68.5 ft²/day

S/S' = 0.6102

001941

JA2107



WELL TEST ANALYSIS

Data Set: Z:\...TSX-2_recovery_Theis.aqt

Date: 06/25/09

Time: 09:46:19

PROJECT INFORMATION

Company: InterFlow

Client: GMI

Location: Kobeh Valley

Test Well: TFX-2

AQUIFER DATA

Saturated Thickness: 800. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
New Well	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ New Well	0	0

SOLUTION

Aquifer Model: Confined

Solution Method: Theis (Recovery)

T = 24.49 ft²/day

S/S' = 2.276

001942

JA2108

CERTIFICATE OF SERVICE

Pursuant to NRAP Rule 25(1)(c), I hereby certify that I am an employee of ALLISON, MacKENZIE, PAVLAKIS, WRIGHT & FAGAN, LTD., Attorneys at Law, and that on this date, I caused a CD-ROM version of same to be served to all parties to this action by:

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_____	Federal Express, UPS, or other overnight delivery
<u> X </u>	E-filing pursuant to Section IV of District of Nevada Electronic Filing Procedures

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Placing a true copy of a CD-ROM version thereof in a sealed postage prepaid envelope in the United States Mail in Carson City, Nevada

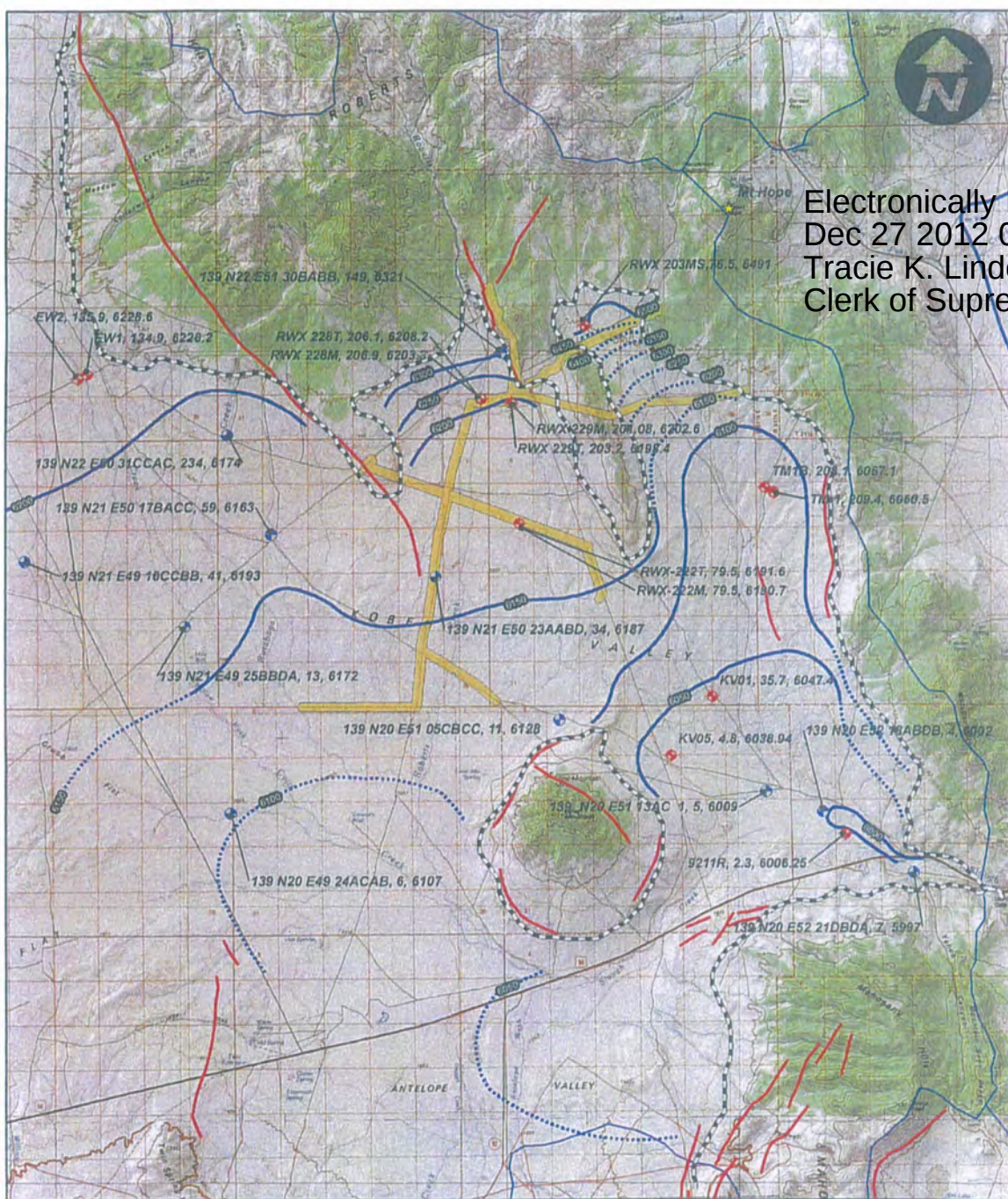
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DATED this 21st day of December, 2012.

/s/ Nancy Fontenot



Explanation

- EMLLC Well Completed in Basin-Fill Aquifer (Name, Depth to Water, Water Level Elevation in Feet)
- Existing Well Completed in Basin-Fill Aquifer (Name, Depth to Water, Water Level Elevation in Feet)
- Approximate Limit of Basin-Fill Aquifer
- Quaternary Faults
- Well Field Corridor

Line of Equal Water Level Altitude, in Feet Above Sea Level

Type

- Higher Certainty
- Lower Certainty

Figure 46 - Potentiometric water level map for the basin-fill aquifer in the Kobeh Valley Well Field area

Electronically Filed
Dec 27 2012 09:50 a.m.
Tracie K. Lindeman
Clerk of Supreme Court

8.0 CONCLUSIONS

EMLLC has conducted an extensive drilling program in the northern portion of Kobeh Valley. In total approximately 40 monitor and test wells have been drilled in the proposed well field and surrounding area. Data from the drilling and testing of these wells has increased the knowledge base of geologic and hydrogeologic interests. Aquifer testing at thirteen locations has provided information on well yields and hydraulic properties. Additional information provided by this report includes chemistry data, water level information, and important potential geologic structures that may affect groundwater flow paths.

The extensive testing program has delineated productive sections of the basin-fill aquifer, and noted compartmentalization in portions of the carbonate aquifer. Geologic maps and cross sections were developed to aid in the understanding of the local geology and hydrogeology.

These data should provide information to help EMLLC and regional land and resource managers understand the hydrogeologic context of the well field area. Information provided in this report can also be used to develop conceptual and numeric models for estimating the changes in the hydrologic system that may occur from utilizing the water resources of Kobeh Valley.

Key findings are summarized below.

- The geology of the Kobeh Valley Well Field area is complex, with multiple episodes of faulting, basin-fill deposition, lake formation and disappearance, and volcanic activity.
- The general structure of the northern well field area, south of Roberts Creek, is that of a central graben bordered by horst blocks to the west and east. Further east, a deep rift valley has formed via normal faulting as evidenced from well logs from 203 and 204.
- The graben that formed south of Roberts Creek is at least 1,000 feet deep at locations 228T and 222T; this basin is filled with basin-fill deposits and underlying bedrock is presumably the Vinini Formation shale and clastic sedimentary rocks, as intercepted at 229T.
- Transmissivity values for the basin-fill materials in the well field area were observed to range from between less than 3,000 ft²/day to nearly 13,000 ft²/day. Storage coefficient estimates for the basin-fill aquifer generally ranged from approximately 0.0001 to 0.003.

- Depths-to-water and estimated transmissivity values appears to increase in a southerly direction from 228T and 229T to 222T. This may be due in part to increased saturated thickness of sand and gravel in a southerly direction.
- Hydraulic properties derived from aquifer testing from well completed in alluvial materials support completion of the production wells at the tested locations.
- Transmissivity of the carbonate rock aquifer can be large, but due to boundary conditions and compartmentalization, the aquifer is locally limited in extent. Within the well field area the eastern carbonate block behaves similar to an aquifer with an average transmissivity of between 6,000 and 7,000 ft²/day, and a storage coefficient of around 0.002. For short pumping durations, highly permeable zones in the carbonate rock, such as encountered at 206T, display very high transmissivity values, but are not observed to be sustained over the course of long-term pumping. Carbonate rock tapped on the western side of the well field area (220T) has a transmissivity of approximately 3,700 ft²/day with a storage coefficient of approximately 0.0001.
- The well field area is bounded to the north by a fault-related low-permeability barrier condition at the base of the Roberts Mountains. This barrier condition is reflected in static water differentials of approximately 330 feet on either side of the fault as documented in monitoring wells at 213M and the Lower and Middle Roberts Creek monitoring wells.

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Lithologic Log Well No. Lower Roberts Creek Monitoring Well (LRCMW)

Dates Logged June, 2008

Initials SJ, MT

Location

Rig Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow Rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	pH	GPM
0	25		Limey CLAY grading to light grey LIMESTONE at 30'	---	---							
25	45			0:04	0:32							
45	65		30' Fine-Grained, Med-gray LIMESTONE w/ CALCITE	0:37	1:10							
65	85			1:14	1:37							
85	105			1:40	2:03							
105	125		--- fractured and oxidized	2:34	2:54							
125	145		125' Grey LIMESTONE	2:57	3:16							
---	---			---	---							
145	165		--- fractured and oxidized	3:20	3:40							
---	---		--- thin CALCITE vein	---	---							
165	185		--- fractured and oxidized	3:43	4:04							
185	205			4:08	4:31							
205	225		220' Fractured DOLOMITE with reddish-brown oxidation, weak HCl reaction, H2S odor	4:35	5:06							
225	245			5:12	5:34	13.7	13.9	13.8	11.6	620	8.17	22
245	265		250' Light grey fractured DOLOMITE, weak HCl reaction, H2S odor	8:37	8:50	14	12	13	13.5	737	8.23	23
265	285		--- some reddish-brown oxidation, minor calcite (vein fill); stonger HCl reaction, strong H2S odor	9:01	9:15	10.7	11.3	12.1	13.5	705	8.4	26
285	300		285' Reddish-brown dolomitic BRECCIA, weak HCl reaction, stong H2S odor	9:24	9:30	6.5	6.5	6.5	13.2	670	8.38	46
300	305			11:28	11:33	6.2	5.5	5.8	16.2	660	8.4	51
305	325		305' Light gray DOLOMITE, minor oxidation, stong H2S odor	11:42	12:02	5.7	6	5.8	14.1	674	8.32	51
325	345			12:13	12:32	5.5	5.6	5.8	14.6	677	8.34	53
345	365		--- fractures, reddish-brown, trace clay	12:42	13:02	5.7	5.9	5.8	15.6	675	8.35	52
365	385		--- dark gray DOLOMITE	13:09	13:29	5.7	5.6	5.3	13.7	690	8.34	54
385	405		--- fractures, oxidation, weak HCL reaction, trace calcite	13:42	13:59	5.3	5.3	5.2	14	670	8.36	57
405	425		--- dark gray, trace calcite veinlets	14:10	14:28	3.4	3.5	3.6	14.2	662	8.35	86
425	445		435' Dark and light grey dolomitic BRECCIA	14:40	15:03	3.4	3.5	3.6	14.2	662	8.35	86
445	465			15:17	15:35	4.4	4.2	3.9	14	658	8.35	72
465	478		445' Gray DOLOMITE, trace CALCITE in veinlets	15:46	15:56	4.6	4.8	4.1	14	658	8.35	67

001862

JA2028

Lithologic Log Well No. MRCMW

Dates Logged 8/6/2008 through 8/7/2003

Location 559743 E, 14404761N, 6747'

Initials SJ, CC, KH

Supervisor Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	(gpm)
0	25		CLAYEY GRAVEL: brown, 70% sand and gravel, 30% plastic greenish yellow clay below 20 ft. Saprolite indicated by a zone of relict 1mm amphibole in a highly weathered siliceous groundmass.	---	---	Set 20' x 8" diameter steel casing						
---	---			---	---							
20	25			13:55	13:58							
25	45			13:58	14:21							
45	65			14:23	14:38							
65	85	X X	65' DACITE: aphanitic siliceous groundmass with euhedral amphibole phenocrysts, 1mm length 0.2 to 0.5 mm diameter.	14:41	14:51							
85	---			15:01	---							
---	---	X X	---	---	---							
---	105			---	15:17							
105	---		105' CLAYEY GRAVEL: stratified, grades from pinkish to blueish gray, 70% subangular limestone, quartz amphibole clasts, fine to coarse sand and fine gravel, 30% clay.	15:22	---							
---	---			---	---							
---	---			---	---							
---	---			---	---							
---	120			---	15:47							
120	130		120' MUDSTONE: bluish gray, gravel size pieces of mudstone, no reaction with H Cl, with few sand size limestone.	---	---							
130	140			---	---							
140	145			---	16:23							
145	150			16:33	---							
150	155			---	---							
155	160		--- samples appear To be wetter.	16:47	16:55							
160	165			16:55	17:03							
165	170			17:10	---							
170	185			---	17:32							
185	190			17:36	---							
190	205		190' gray DOLOMITE, some mudstone, chips are angular and fine gravel to coarse sand size, weak reaction to HCl when scratched.	---	17:53							
205	210			19:54	20:00							
210	215			20:01	20:05							
215	220			20:06	20:11							
220	225			20:12	20:19	74	78	80	14.2	545	7.6	3.9
225	230		205' LIMESTONE, some clay, oxidized	20:42	20:52							
230	235			20:52	21:04							
235	240			21:06	21:21							
240	245			21:22	21:36	6.4	6.5	6.6	11.9	1163	7.8	46.2
245	250			22:13	22:36							
250	255		--- bedding planes	22:36	22:58							
255	260			22:58	23:24							
260	265			23:25	23:35	6.0	6.2	6.3	11.8	1164	7.8	48.6
265	270			23:46	23:54							
270	275			23:55	00:03							
275	280		--- fractures chert and limestone	00:04	00:30							
280	285			00:31	00:36	5.8	5.6	5.6	11.4	1153	7.8	52.9
285	290			00:50	01:01							
290	295			01:02	01:12							
295	300			01:13	01:31	5.4	5.4	5.6	11.2	1135	7.8	54.9

Lithologic Log Well No. RWX- 213B

Dates Logged 7/23/2008 through 7/29/2008
Location 14444466.77N, 1840499.63E, 6639.7

Initials EC, CB
Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	(gpm)
0	5		CALICHE, and weathered siltstone GRAVEL	2222	2225							
5	20		5': Light grey fractured DOLOMITE, <1/2" diameter chips	2229	2236	Set 20" x 8" diameter steel casing						
20	30			0338	0402							
30	45			0539	0555							
45	65		55': Yellowish-brown CLAY (paleosol)	0745	0801							
65	85		60': Light to medeum grey fractured DOLOMITE, <3/8" chips	0805	0819							
85	105			0822	0835							
105	125		115': Light grey fractured DOLOMITE, with intermittent CALCITE veinlets, <3/8" diameter chips	1012	1023							
125	145			1026	1036							
145	165			1044	1105							
165	185			1110	1130							
185	205		185': Grey to dark grey DOLOMITE, intermittent CALCITE veinlets, <1/8" diameter chips	1135	1154							
205	225			1201	1220							
225	245			1228	1239							
245	265			1243	1254							
265	285			1402	1413							
285	305			1419	1426							
305	325			1435	1446							
325	345		340' Dolomitic BRECCIA, with light tan clay matrix	1455	1509							
345	365		342' Grey to dark grey DOLOMITE, trace CALCITE from intermittent veinlets, <1/4" diameter chips	1519	1538							
365	385			1552	1622							
385	405			1626	1644							
405	425			1651	1711	13	14	16	Too muddy to test			21
425	445			1859	1925	15	16	13				20
445	465			1931	2009	16	14	15				20
465	485		485' Dolomitic BRECCIA	2028	2102	17	16	14				19
485	505		486' Light to dark grey DOLOMITE, trace CALCITE veinlets	2145	2208	18	18	18	14.3	537	7.87	17
505	525			2231	2306	14	15	16	13.3	585	8.10	20
525	545		526': White, very soft chalky CLAY with light grey DOLOMITE	2324	2357	14	15	16	13.3	585	8.10	20
545	565		527' Grey DOLOMITE, trace CALCITE vein fill, occasional white CLAY and BRECCIA	0109	0145	11	13	10	13.3	572	7.94	26
565	585			0158	0243	8	7	8	12.8	545	7.86	39
585	605			0255	0333	8	8	7	12.6	539	7.82	39
605	625			0347	0420	8	8	7	12.5	538	7.75	39
625	645			0434	0506	6	8	7	12.4	512	7.87	43
645	665			0520	0550	9	7	8	12.2	512	7.87	38
665	685			0713	0758	9	9	9	Re-calibrating			33
685	705			0812	0858	6	7	7	14.8	625	8.28	45
705	725			0915	0952	7	7	7	19.8	625	8.28	43
725	745			1015	1050	6	7	6	15.9	616	8.34	47
745	765		745': Light grey DOLOMITE, trace CALCITE	1117	1157	4	4	5	18.0	618	8.34	69
765	785			1213	1302	4	4	4	17.9	600	8.29	75
785	805			1333	1426	4	4	4	18.4	587	8.29	75
805	820			1908	2152	4	4	4	14.1	521	8.41	75
820	840			2208	0058	4	4	5	13.2	511	8.17	69
840	860			0114	0303	4	4	4	12.7	514	8.13	75
860	880		--- fracture zone, with larger CALCITE crystals <1/4" diameter	0315	0530	4	4	4	12.8	513	8.07	75
880	900			0655	0925	4	4	4	16.2	600	8.00	75
900	920			0947	1138	4	4	4	16.4	592	8.46	75
920	940			1210	1354	4	3	4	19.3	586	8.31	82
940	960			1406	1610	3	3	3	18.2	584	8.31	100
960	980			1638	-	3	3	3	18	580	8.40	100
980	1000		996': Tan DOLOMITE	1851	2132	3	4	3	15.8	571	8.35	90

Lithologic Log Summary Well No. RWX- 214 Monitoring Well

Dates Logged 8/14/2008 – 8/26/2008

Initials BC, EC, MT

Location 14440744 11N, 1841368 69E, 6620.5'

Rig Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate (gpm)
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	
0	22		Sandy GRAVEL, with boulders, caliche and yellow clay	13:20	16:45	Set 8" diameter steel casing to 20' bls						
22	25			16:45	16:54							
25	45			16:56	17:32							
45	65		LIMESTONE, olive gray, fractures filled with calcite	18:37	18:53							
65	85			18:59	19:15							
85	105			20:06	20:24							
105	125		--- increased calcite at 110'; minor oxidation stain, strong HCl reaction	20:29	20:45							
125	145			20:52	21:28							
145	165			21:36	21:48							
165	185			23:12	23:21							
185	205			23:36	23:53							
205	225			00:00	01:00							
225	245		--- 215' LIMESTONE, medium to dark gray, minor oxidation, sparse calcite as fracture fill	---	---							
245	265			02:48	03:25							
265	285			03:55	04:24							
285	305		---	04:35	05:10							
305	325			---	07:36							
325	345			07:42	08:12							
345	365		--- 310' fossils; brachiopods --- 335' calcite filled fractures, moderate oxidation, trace clay	08:17	08:55	First water; unsustainable						
365	385			09:02	09:37							3
385	405			09:50	10:37							4
405	425		Dark gray argillitic MUDSTONE, fossiliferous, trace oxidized calcite as fracture fill	10:42	11:21							3
425	445			11:32	12:14				24.7	501	7.93	3
445	465			12:24	13:12							3
465	485		--- 425' fat clay on fractures --- 460-461' yellow-brown oxidation	13:20	---							3
485	505			---	14:55				25.6		7.56	
505	525			15:05	15:46							2
525	545			15:54	16:40				31.9		8.05	2
545	565			16:47	19:16							2
565	585			19:24	20:24				21.0		8.25	3
585	605			20:37	21:29							3
605	625			21:36	22:57				18.8		8.28	6
625	645			23:06	00:24							6
645	665		Black, MUDSTONE, indurated, siliceous, with calcite filled veinlets	00:32	01:42				17.7		8.27	8
665	685			01:58	02:44				17.6		8.23	8
685	700			02:57	09:59	6	6	6	14.4	471	8.14	50
700	720		--- 700-705 reddish brown fat clay	10:27	12:45	5	5	5	15.3	226	8.13	60
720	740			12:50	16:45	4	4	4	15.1	439	7.75	75
740	760			17:02	20:43	5	5	5	14.9	494	7.72	60
760	780			20:57	23:39	5	5	5	13.8	490	7.82	60
780	800			23:49	02:51	5	5	5	12.8	486	7.92	60
800	820			02:51	05:46	4	4	4	13.3	488	7.81	75
820	840			---	10:02	4	4	4	14.7	486	7.82	75
840	860			10:24	11:42	4	3	4	15.2	495	7.75	82
860	880			---	---	3	3	4	---	---	---	90
880	900		--- brecciated from 919-933'	---	---				---	---	---	
900	920			---	15:20	3	3	3	16.3	505	7.72	100
920	940			17:49	19:10	4	4	4	18.1	520	7.71	75
940	960		--- quartz as vein fill	19:20	21:14	4	4	4	16.2	522	7.90	75
960	980			21:20	23:35	4	4	4	16.1	450	7.90	75
980	1000			23:40	01:01	4	3	4	13.5	506	8.21	82

001865

JA2031

Lithologic Log Summary Well No. RWX- 215

Dates Logged 6/25/2008 – 7/10/2008

Initials BC, EC

Location 14441553.63N, 1841693.6E, 6684.77'

Rig Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	20		Weathered LIMESTONE tan to light gray, with silt and clay	---	---							
20	70			10:30	12:03							
70	90		---75'-85' minor calcite veins	12:03	12:46							
90	105		--- grades to dark gray	13:23	13:52							
135	150		---135'-145' brown weathered zone	14:25	14:42							
150	170			14:42	17:00							
170	190		185'-190' Tan and gray LIMESTONE	05:00	07:46							
190	210		--- dark gray	07:46	08:03							
300	320		---305'-320' brown soft zone	10:57	11:17							
320	340		---drak gray	11:20	11:46							
380	400		370-375' brown soft zone	14:12	15:03							
400	420		420-460' oxidized fractures	15:20	---							
420	440			---	---							
440	460			---	---							
460	480		---calcite vein massive	08:15	---							
480	500		---480-485' mostly calcite	13:53	14:20							
500	520		---495-515' calcite veinlets, iron stain	14:20	14:50							
520	540		515'-540' mixed brown to dark gray	14:55	15:15							
540	560		---545-560' oxidized fractures	15:20	15:38							
560	580		intermittent from 545-595'	15:52	16:11							
580	590			16:16	17:15							
595	600		---gray to dark gray	17:34	17:45							
600	620		Interbedded limestone and siltstone, thin chert beds	05:10	08:42							
620	640			---	08:42							
640	645		Local calcite veinlets common	08:50	09:22							
645	655			09:22	09:47							
655	660		clastic LIMESTONE grains in fine sand matrix, possible fault, trace sulfides	09:47	10:20				16	412	8	
660	680			10:35	11:02							
665	670		---1/4" calcite vein	11:02	11:22							
670	680		---675' local recrystallized limestone	12:04	13:04							
680	685		---682'-689' iron oxide staining	13:38	14:42							
690	692			15:10	15:55							
695	700		---700'-710' iron oxide staining	09:04	09:18				16.3	472	7.8	
700	705		700-705' Red orange CLAY, few secondary limestone clasts	09:36	09:40							
710	715			09:46	10:00							
720	740		725-730' Chert clasts, clay at 734'	10:15	10:45	4.75	4.2	4.53	15.3	413.9	7.89	67
740	760		745-750' stained calcite crystals	---	---							
760	780		777.5-780 red orange clay	13:25	13:43	4.3	4.4	4.9	18.5	449	7.83	66
780	800		--- clay at 796 to 797'	13:53	15:23	4.3	4.1	4.2	17.3	430	7.93	71
800	820		Gray LIMESTONE, minor iron stain	05:10	06:25	4.1	4.2	4.4				71
820	840		Light gray DOLOMITIC LIMESTONE	06:25	08:12	3.8	3.4	4	14.9	432	7.92	80
840	860			08:24	09:28	3.8	3.9	3.8	15.6	436	7.92	78
860	880		---light gray	---	---							
880	900			---	14:10	3.4	3.6	3.6	16.5	424	7.89	85
900	920		--- gray dolomitic limestone, sulfides	---	---							
920	940			---	---							
940	960		Tan LIMESTONE, trace sulfides	---	---							
960	980			---	16:20	3.3	3.7	3.5	15.5	442	7.88	86
980	1000			---	16:49	3.1	3.3	3.5	15.7	438	7.81	91

001866

JA2032

Lithologic Log Well No. RWX- 219

Dates Logged 8/7/2008 through 8/12/2003
Location 14441016.89 N, 1857186.35 E, 6611.18'

Initials SJ, MT
Rig Supervisor Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow Rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	(gpm)
0	25			---	---	Set 8" diameter steel conductor casing to 20' bls						
25	45		CLAYEY GRAVEL: 70% sand and gravel, 30% plastic clay mixed with lithic clasts of quartzite, calcite cement	08:13	---							
45	65		---	---								
65	85		--- 60% sand and gravel	08:38	---							
85	105		--- 60% sand and gravel, with cobbles stratified	---	---							
105	125		with 2' lenses of clean gravel with cobbles (100'-120')	---	---							
125	145		CLAYEY SAND: 15% gravel, 60% sand, 25% calcite cement	---	---							
145	165		CLAYEY GRAVEL stratified with SANDY CLAY: 1'-2' clayey gravel lenses with 2'-3' sandy clay	---	10:03							
165	185		---	---								
185	205		CLAYEY SAND: with gravel stratified in 1'-2' lenses with SANDY CLAY	---	10:25							
205	225		10:26	12:05								
225	245		---	---	< 5 gpm water in hole after break in drilling at 245'							
245	265		CLAY: bluish gray	---	---							
265	285		CLAYEY SAND 65-80% sand and gravel, 20-35% plastic fines	12:02	12:18	First water; not sustainable						
285	305			14:00	14:13							
305	325			14:25	110.0	-	-	23.0	646	8.3	3	13
325	345		CLAYEY argillaceous SAND: 20- 30% plastic fines, 70-80% sand and gravel stratified dark	14:35	14.48	110.0	-	-	23.3	664	7.9	3
345	365			---	15:10	31.0	36.0	109.0	22.4	617	7.9	5
365	385		GRAVELLY SAND, with 15-30% fines, gravel clasts are moderately welded gray tuff	---	15:37	119.0			24.3	615	8.0	3
385	405			---	16:03	19.3	15.7	20.0	23.3	609	8.2	16
405	425		Dark gray argilic MUDSTONE, microcrystalline silica, trace sulfides	---	---							
425	445			---	18:41	14.0	15.2	14.4	15.5	545	8.6	21
445	465		--- possibly fractured, ~40% clay	---	19:17	16.4	16.7	16.7	15.6	535	8.6	18
465	485		Dark gray argilic MUDSTONE with calcareous veinlets	19:36	20:06	14.2	14.2	14.4	14.9	542	8.4	21
485	505		Argilic MUDSTONE: siliceous, microcrystalline, calcite filled veinlets	20:22	20:46	15.3	15.7	16.5	14.8	539	8.5	19
505	525			---	21:23	15.2	15.5	15.9	14.7	547	8.3	19
525	545		---calcite filled fractures.	---	22:04	14.9	14.8	15.0	14.7	552	8.4	20
545	565			---	23:10	13.7	14.2	14.0	13.6	537	8.4	21
565	585		--- fractures	23:25	00:20	11.5	12.3	12.9	14.3	566	8.3	25
585	605			---	01:29	16.8	17.6	18.0	14.8	551	8.4	17
605	610		Calcareous MUDSTONE: gray, with calcite filled fractures.	01:49	05:05	Hammer watered out. Switched to rock bit.						
610	620			05:19	---	11.2	11.3	10.9	13.9	554	8.6	27
620	640		MUDSTONE: siliceous, microcrystalline with disseminated sulfide mineralization. CALCITE filled fractures. Black film on mud pit.	07:53	---	8.8	9.3	8.9	16.3	596	8.1	33
640	660			---	08:35	9.8	9.4	10.4	18.5	590	8.1	30
660	680			09:56	---	10.0	10.0	11.0	17.9	592	8.2	29
680	700			---	10:51	10.0	10.0	11.0	18.3	593	8.1	29
700	720		--- 5% sulfides.	11:01	12:22	11.0	10.0	11.0	20.0	602	8.0	28
720	740		--- hardness 5-6, dark slate gray	---	13:25	11.0	13.0	14.0	19.7	604	8.2	24
740	760		--- conchoidal fracture, cherty dolomite	13:30	14:35	11.6	11.7	11.5	19.8	604	8.2	26
760	780		--- softer 770-790', no sulfides 770'-800'	---	15:33	9.5	8.4	8.6	19.9	604	8.1	34
780	800			---	16:30	6.8	7.9	7.8	20.7	606	8.1	40
800	820			---	00:34	8.9	9.3	9.8	15.4	565	8.6	32
820	840		--- sulfides	00:52	01:29	10.8	9.9	11.0	15.1	602	8.5	28
840	860		--- gray and black	---	04:14	8.1	8.6	8.8	15.1	596	8.4	35
860	880			---	03:25	9.6	10.3	10.0	14.5	606	8.5	30
880	900		Siliceous MUDSTONE: with pyrite and calcite filled veins	---	04:14	8.1	8.6	8.8	15.1	596	8.4	35
900	920			04:26	05:01	9.0	9.6	9.4	15.0	618	8.4	32
920	940		Calcareous MUDSTONE: fine grained, black, trace disseminated pyrite, chalcopryrite, shaley,	---	05:45	7.2	8.3	8.6	15.3	660	8.4	37
940	960			06:55	07:40	8.7	8.7	8.9	19.3		8.4	34
960	980		sandy LIMESTONE or calcareous QUARTZITE	---	08:30	7.6	7.3	7.6	19.4		8.4	40
980	1000		sand: light gray; calcite cement	---	09:35	8.2	8.9	8.8	18.5	660	8.3	35

001867

JA2033

Lithologic Log Summary Well No. RWX- 220

Dates Logged 8/7/2008 – 8/12/2008

Initials CC, KH

Location 14424094.94 N, 1826674.29E, 6350.84'

Rig Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	25		0'-55': interbedded LIMESTONE and DOLOMITE	11:10	11:36	Set 8" diameter steel conductor casing						
20	40			16:30	16:50							
40	60			16:50	19:22							
60	80		50' – 280' Calcareous MUDSTONE	19:22	19:38							
80	100			19:38	20:04							
100	120			20:04	20:20							
120	140			20:20	20:46							
140	160			20:46	21:05							
160	180			21:05	21:19							
180	200			21:19	21:40							
200	220			21:40	21:59							
220	240			21:59	22:19							
240	260			22:19	22:38							
260	280			22:38	22:50							
280	300		280' – 950' Calcareous MUDSTONE (argilic alteration)	22:50	23:20							
300	320			23:20	23:36							
320	340			23:36	00:32							
340	360			00:32	00:58							
360	380			00:58	01:24							
380	400			01:24	02:12							
400	420			02:12	02:33							
420	440			02:33	03:03							
440	460			03:03	03:33							
460	480			03:33	03:57							
480	500			03:57	04:26							
500	520			04:26	04:51							
520	540		--- calcite filled fractures with increased sulfides	04:51	05:15							
540	560			---	07:35							
560	580			07:35	08:53							
580	600			08:53	09:36							
600	620		--- 610-640' fractures	09:36	10:38	13.0	13.0	13.0	20.6	665	8.0	23.1
620	640			10:38	14:05	7.0	7.0	7.0	19.8	631	8.2	42.9
640	660			14:05	15:08	7.3	7.0	7.2	19.2	629	8.0	41.9
660	680			15:08	16:51	7.7	7.9	7.6	18.8	614	8.1	38.7
680	700			16:51	19:06	7.6	7.0	7.1	14.6	594	7.8	41.5
700	720			19:06	20:14	7.4	7.2	7.8	14.5	591	7.7	40.1
720	740			20:14	21:18	8.8	7.9	8.1	14.3	580	7.7	36.3
740	760			21:18	22:17	7.1	7.1	6.5	14.3	536	7.7	43.5
760	780			22:17	23:19	5.8	5.8	5.4	13.9	478	7.7	53.0
780	800			23:19	00:25	5.6	5.4	5.1	13.9	481	7.7	56.1
800	820			00:25	01:17	5.8	5.6	5.1	13.3	471	7.7	54.5
820	840			01:17	02:22	4.9	5.2	4.8	13.2	476	7.7	60.6
840	860		--- fractures	02:22	03:30	4.8	4.7	4.7	13.2	465	7.7	63.5
860	880			03:30	04:45	4.0	3.9	3.4	13.1	435	7.8	79.3
880	900			04:45	07:40	2.7	2.2	2.9	14.2	437	8.1	115.4
900	920			07:40	08:17	2.4	2.3	2.7	14.7	460	8.1	121.8
920	940			08:17	09:34	2.2	2.8	2.6	16.0	443	8.0	117.8
940	960			09:34	11:17	1.7	1.6	1.8	19.0	452	8.0	176.5
960	980			11:17	12:53	1.8	1.8	1.8	20.0	432	8.1	169.2
980	1000											

The static water level measured by fluid resistivity curves was 124'. Fracture zones were seen in rock chips and/or geophysical logs at 560' 610'-640' 790', 900, and 970'bgs.

001868

JA2034

Lithologic Log Summary Well No. RWX- 222

Dates Logged 9/2/2008 – 9/17/2008

Initials KG, KH

Location 14416286.37 N, 1843978.42 E, 6270.55'

Rig Supervisor Kati Gibling

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	40		ALLUVIUM: unconsolidated silt, sand, and gravel with 5'-10' clayey	15:05	15:39	Set 20' x 8" steel casing						
40	50			07:40	07:58							
50	150		SAND and GRAVEL with sandy clay between 75'-85'	07:58	12:00							
150	160		CLAY	12:08	12:15	160' First water						
160	175		SAND: mostly fine	12:20	12:43							
175	180		SAND and GRAVEL fine sand to 1 mm diameter subangular gravel	12:43	12:50	18.0	16.0	16.0	19.1	772	7.2	18.0
180	200			14:04	14:46	12.0	11.0	12.0	19.3	442	7.6	25.7
200	220		Interbedded CLAY with SAND and GRAVEL	14:47	15:19	18.0	23.0	22.0	18.0	882	8.8	14.3
220	240			15:28	15:58	14.0	22.0	60.0	20.1	576	8.2	9.4
240	255			16:06	16:18							
255	260		SAND and GRAVEL	16:18	16:22	9.0	9.0	9.0	16.3	753	8.9	33.3
260	280			16:27	16:51	50.0			17.7	425	8.5	6.0
280	300			06:30	06:50	5.0	4.0	4.0	11.3	447	8.3	69.2
300	305			07:08	07:12							
305	320		CLAY: 40 to 90%	07:12	07:42	No water test due to caving from 295'-305'						
320	325			07:47	07:56							
325	330			07:56	08:03							
330	340		333'-350' GRAVEL and SAND	08:03	08:10	4.0	4.0	4.0	11.6	413	8.6	75.0
340	360		350'-365' CLAY	08:17	08:37	7.0	7.0	11.0	12.4	423	8.4	36.0
360	380		365'-385' GRAVEL and SAND	08:49	09:01	7.0	6.0	5.0	12.6	408	8.7	50.0
380	400		385'-420' CLAY	09:06	09:40	No water discharge						
400	420			12:20	12:44	No water discharge						
420	440		420'-460' GRAVEL and SAND	12:47	12:59	2.4	2.0	2.0	19.8	414	8.8	140.6
440	460			13:01	13:24	3.0	3.4	3.0	16.5	721	8.8	95.7
460	480		--- clay 460'-465'	13:28	13:42	2.0	2.2	1.8	15.1	556	8.8	150.0
480	500		--- clay 485' - 500'	13:47	14:09	No water discharge						
500	520			14:15	14:28	2.0	1.5	2.0	16.7	593	8.8	163.6
535	540			14:42	14:47	1.7	1.0	1.0	15.4	559	8.7	243.2
555	560			15:05	15:09	1.5	1.0	1.0	15.5	580	8.7	257.1
560	580			15:15	15:29	2.7	2.0	2.3	15.8	494	8.7	128.6
580	600			16:32	16:44	1.8	2.0	1.6	18.6	194	8.7	166.7
600	620			16:48	17:01	1.6	1.8	1.8	14.4	653	8.8	173.1
635	640			17:15	17:19	1.8	1.5	1.8	15.8	494	8.7	176.5
640	660		650'-670' CLAY	17:23	17:38							
660	680		670'-680 GRAVEL and SAND	17:44	17:58	2.5	1.8	1.8	17.8	787	8.6	147.5
680	700		680'-725 CLAY	06:36	07:00	1.7	1.5	1.3	15.6	656	8.6	200.0
700	720			07:12	07:32							
---	---			---	---							
720	740		725'-750' GRAVEL and SAND	09:18	09:45	1.5	1.3	1	19.6	306	8.56	236.8
740	760		750'-920' CLAY	09:53	10:11	1.3	1.0	1.2	15.8	404	8.6	257.1
760	780			10:16	10:38	1.2	1.1	1.2	16.0	400	8.6	257.1
780	800			10:45	11:08	1.4	1.2	1.4	17.1	409	8.5	225.0
800	820			11:15	11:32	1.2	1.2	1.1	16.3	420	8.5	257.1
820	840			11:39	11:56	1.2	1.2	1.2	20.5	456	8.6	250.0
840	860			---	---							
860	880			---	---	4.2			17.6	449	8.8	71.4
880	900			14:15	14:55							
900	910			15:02	17:00	Tension cable broke at top head.						

001869

JA2035

Lithologic Log Summary Well No. RWX- 223

Dates Logged 8/11/2008 – 8/28/2008

Initials CC, DS

Location 14413328.14N, 1852081.65 E, 6267.19'

Rig Supervisor C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	40	----	ALLUVIUM	---	---	Drill and set 8" steel casing to 20' bls						
40	60	----	Highly weathered MUDSTONE	1833	1952							
60	80	----		1955	2145							
---	---	----		---	---							
80	100	----		2316	30							
100	120	----		36	215							
120	140	----		220	406							
140	160	----		414	930							
160	180	----		934	1135							
180	200	----		1143	1405							
200	220	----		1410	1550							
220	240	----		1555	1633							
240	260	----		1831	1925							
260	280	----		1930	2054							
280	300	----		2057	2238							
300	320	----		2244	6	320' First water						
320	340	----	Argillitic MUDSTONE	12	155	15	14	14	14.8	414	8.30	21
340	360	----		221	421	10	10	11	13.3	399	8.30	30
360	380	----		410	957	8	8	8	16.6	362	---	38
380	400	----		1010	1201	7	8	8	16.8	369	8.09	41
400	420	----		1205	1439	7	7	7	17.5	339	7.91	43
420	440	----		1445								
440	460	----										
460	480	----										
480	500	----										
500	520	----										
520	540	----	Color ranges from dark gray to black, Grades from calcitic to siliceous with depth. Hardness increases from 5-6 with depth. Calcite filled fracture surfaces intermittent.									
540	560	----										
560	580	----										
580	600	----										
600	620	----										
620	640	----										
640	660	----										
660	680	----										
680	700	----										
700	720	----										
720	740	----										
740	760	----										
760	780	----										
780	800	----										
800	820	----										
820	840	----										
840	860	----										
860	880	----										
880	900	----										
900	920	----										

001870

Lithologic Log Summary Well No. RWX- 223T

Dates Logged 9-10-2008 - 9/25/08

Location 14413341.97 N, 1852070.56 E, 6266.09'

Initials CB, EC, CM, SJ

Rig Supervisor Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	40		Light brown SANDY GRAVEL, 1/8"-3/8" diameter with silt and clay	---	---	Set 8" diameter steel conductor casing						
40	65			---	12:05							
65	85			12:05	14:34							
85	105		70' - 80' more clay, fewer gravel clasts.	14:39	19:37							
105	125		--- clasts with some oxidation	19:41	20:10							
125	145		Weathered ARGILITIC MUDSTONE	20:05	21:26							
145	165		with thin interbedded CLAY layers.	21:29	22:11							
165	185			23:00	23:20	First water 190'						
185	205		CLAY: with ~40% oxidized mudstone	23:24	23:50	6.4	6.9	8.3				41.7
205	225		--- red brown clay with 1/8" diameter mudstone clasts	23:58	0:35							
225	245			0:52	1:37	8.2	9.1	8.7				34.6
245	265			1:44	1:50	6.1	7.7	7.8				41.7
265	285			3:10	3:57	13.8	13.9	14.4				21.4
285	305		--- 50% oxidization, sandy, clayey	4:06	5:31	10.0	9.4	10.0				30.6
305	325			6:39	7:43							
325	345		--- weathered and interbedded siliceous	7:49	9:06	9.2	9.3	10.2	16.8	516	8.4	31.4
345	365		to cherty MUDSTONE and thin <5' Limestone with calcite filled fractures.	9:14	10:46	9.3	8.6	7.4	21.2	515	8.3	35.6
365	385			10:55	13:43	7.3	7.7	8.9	23.8	490	8.1	37.7
385	405			14:35	16:32	6.7	6.8	6.8	22.8	591	8.1	44.3
405	425			16:45	19:19	6.9	5.9	6.7	17.4	485	8.6	46.2
425	445			19:29	21:35	5.6	6.0	5.8	17.4	494	8.4	51.7
445	465			21:44	0:11	6.3	6.9	5.6	17.1	494	8.3	47.9
465	485			0:56	5:07	4.7	5.0	5.5	15.9	390	8.2	59.2
485	505		pyrite, hematite filled fractures.	5:13	10:55	4.6	4.5	5.1	19.9	483	8.3	63.4
505	525			11:08	15:34	5.8	6.0	5.1	20.1	510	8.3	53.3
525	545			15:57	17:44	5.7	5.3	5.6	19.9	454	8.3	54.2
545	565		523' 5% hematite	18:57	22:59	4.8	4.3	4.5	16.6	444	8.4	66.2
565	585		up to 5% iron oxide between 585' to 595'	23:11	2:30	8.7	10.0	10.7	17.4	510	8.6	30.6
585	605			2:41	5:40	9.7	9.9	9.5	17.2	516	8.6	30.9
605	625			8:30	11:10	11.7	11.3	10.2		630	8.2	27.1
625	645			11:20	14:57	11.1	12.9	13.8	21.4	578	8.2	23.8
645	665			15:12	19:30	9.9	10.6	11.3	17.4	498	8.7	28.3
665	685			19:38	1:24	11.8	11.9	12.3	17.9	502	8.8	25.0
685	705		trace pyrite, siliceous.	1:36	7:22	10.6	10.4	11.6	17.1	592	8.3	27.6
705	725			7:40	9:28	11.1	12.3	11.8	19.5	582	8.7	25.6
725	745			9:40	13:01	6.8	7.7	8.1	21.2	566	8.6	39.8
745	765			13:10	16:06	6.2	8.7	6.4	21.4	573	8.6	42.3
765	785			15:18	19:54	5.8	6.3	6.4	19.3	558	8.5	48.6
785	805			20:06	22:55	7.8	8.3	7.9	19.2	564	8.7	37.5
805	825			23:07	2:19	6.2	6.4	6.5	19.3	535	8.5	47.1
825	845			2:24	7:16	5.6	4.1	4.1		586	8.6	65.2
845	865			7:27	10:16	7.4	7.4	6.2	21.6	538	8.5	42.9
865	885			10:26	19:40	3.0	2.9	3.3	17.1	505	8.3	97.8
885	905		903' - 904' fractures	19:50	22:13	3.1	3.4	2.9	16.9	484	8.4	95.7
905	925			21:35	1:22	2.9	3.2	3.0	16.3	485	8.4	98.9
925	945			1:33	4:27	2.8	2.8	2.8	14.6	502	8.4	107.1
945	965		Slightly fractured MUDSTONE with little	3:45	9:41	2.8	2.7	3.1	18.2	488		104.7
965	985		to no clay	9:58	13:04	3.0	2.9	3.0	19.9	285		101.1
985	1000			12:20	15:26	3.5	3.0	3.0	17.6	517		94.7

001871

JA2037

Lithologic Log Well No. RWX- 228

Dates Logged 7/30/2008 – 8/5/2008

Location: 1839494.4 E, 14431143.3 N, 6409'

Initials KG, DS, MT

Rig Supervisor: C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow Rate	
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	(gpm)	
0	20		SILT and CLAY	07:30	08:10	Set 8" diameter steel conductor casing							
20	40		Sandy GRAVEL with SILT; clasts <2.5mm diameter	11:29	12:08								
40	60			12:10	-								
60	80		Gravelly SAND; fine grained with ~10% gravel	12:32	-								
80	100			-	-								
100	120		Fat CLAY with SAND and few gravel	13:50	14:18								
120	140		GRAVEL with SAND; <3cm clasts	-	-								
140	160		--- 145-150' CLAY	14:40	-								
160	180			-	15:38								
180	200		SAND and GRAVEL	-	15:56								
200	220		--- 2.5 cm gravel to coarse sand	16:03	-								
220	240		--- oxidized zone	-	16:19								
240	260		Gravelly SAND, trace fines	16:57	-								
260	280		--- minor clay over interbedded sand and gravel	17:31	17:50								
280	300			19:02	-								
300	320		Coarse SAND	19:07	19:58	First sustainable water, 20 gpm							
320	340		SAND and GRAVEL	20:08	20:32	12.0	13.0	13.0	14.9	500	8.0	24	
340	360		--- few gravel	-	21:10	11.0	10.0	10.0	12.5	435	8.2	29	
360	380			-	21:53	9.0	8.0	9.0	12.6	439	8.1	35	
380	400		SAND and GRAVEL	-	22:38	8.0	8.0	8.0	12.5	429	8.1	38	
400	420		1/4" yellow clasts	22:43	23:16	8.0	8.0	8.0	12.7	426	8.1	38	
420	440			-	00:28	8.0	7.0	8.0	12.1	410	8.1	39	
440	460			-	01:08	7.0	6.0	6.0	12.0	406	8.1	47	
460	480		--- few 1/2" to 1" gravel	01:16	01:44	7.0	7.0	7.0	12.1	413	8.1	43	
480	500		--- increased fines	02:01	02:26	8.0	7.0	6.0	12.4	399	8.1	43	
500	520			-	03:03	9.0	8.0	7.0	12.3	391	8.2	38	
520	540			-	03:35	6.0	6.0	5.0	12.3	400	8.1	53	
540	560			-	04:10	6.0	6.0	6.0	12.2	386	8.2	50	
560	580			-	04:44	7.0	6.0	6.0	12.5	377	8.0	47	
580	600			-	05:21	7.0	6.0	6.0	12.5	377	8.0	47	
600	620		SAND and GRAVEL with CLAY	07:45	08:22	3.1	3.0	3.3	14.2	423	8.1	96	
620	640			-	09:20	3.1	3.0	2.7	15.4	446	8.2	102	
640	660		--- 50% coarse grained sand, 20% gravel	19:20	---								
660	700		Gravelly SAND: medium-coarse, 1/4" diameter gravel	23:32	06:00	Lost circulation. Drilling fluids and water was lost in fractures							
680	700			10:50	10:58	3.0	3.0	3.0	14.1	311	8.3	100	
700	720			11:07	11:44	2.0	2.0	2.0	14.6	374	8.6	150	
720	740		--- 736'-737' CLAY	12:01	12:34	No test, circulation blocked.							
740	760			12:57	13:30	2.0	3.0	2.0	14.4	291	8.28	129	
760	780			13:38	---								
780	800		--- 795-797' CLAY	---	15:08	3.0	3.0	2.0	13.2	318	8.3	113	
800	820		Gravelly SAND, medium to fine grained, < 1/2" diameter angular to subangular gravel	15:19	16:01	2.0	2.0	2.0	13.0	316	8.4	150	
820	840			16:10	16:43	2.0	2.0	2.0	13.6	301	8.4	150	
840	860		Sandy GRAVEL, subangular to subrounded clasts, 1/2" diameter, 35% with medium to coarse sand <55%, ~10% clay clasts	16:52	---	2.0	1.9	1.9	13.6	283	8.4	155	
860	880			18:52	19:57	2.5	2.0	2.1	13.5	256	8.4	136	
880	900			20:08	20:43	2.5	2.4	2.5	14.4	207	8.6	122	
900	920			21:02	21:45	2.0	2.5	2.0	13.5	257	8.5	138	
920	940			21:59	22:36	2.5	2.5	2.5	13.2	296	8.5	120	
940	960			22:47	23:35	2.4	2.0	2.0	13.1	305	8.4	141	
960	980			23:50	00:36	2.5	2.5	2.4	13.1	356	8.5	122	
980	1000			00:48	02:23	2.4	2.4	2.4	13.8	339	8.6	125	

RWX-228T
Lithologic and Water Production Log

Location: E1820441.6 N14431105.6
 Dates Logged: 8-19-2008 through 8-24-2008

Initials KH,TR
 Supervisor: C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	40		ALLUVIUM	09:35	12:10	Set 20' x 14" diameter steel casing						
40	60		SAND: coarse, poorly graded, sub-rounded, few dark gray & brown gravel, limestone clasts.	18:33	19:52							
60	80			19:54	21:45							
80	100			23:16	00:30							
100	120			00:36	02:15							
120	140			02:20	04:06							
140	141			04:14	04:28							
141	160		GRAVELLY SAND: sub-rounded to sub-angular, ranging from 1/4" to 1/2".	06:50	09:30							
160	170			09:34	---							
170	180		GRAVELLY CLAY: brown with well graded up to 3/4" angular gravel.	---	11:35							
180	200		GRAVELLY SAND: gray to black, sub-rounded to sub-angular, with some fines (clay).	11:43	14:05							
200	220			14:10	15:50							
220	225			15:55	16:33							
225	240			18:31	19:25							
240	260		--- thin CLAY layers (6 to 12" thick).	19:30	20:54							
260	280		--- rounded GRAVEL up to 1"	20:57	22:38							
280	300			22:44	00:06							
300	320			00:12	01:55	15	14	14	14.8	414	8.0	21.3
320	340		--- smooth rounded up to 2"	02:21	04:21	10	10	11	13.3	399	8.0	29.6
340	360			07:10	09:57	8	7	8	16.6	362.0	10.1	37.7
360	380			10:10	12:00	7	8	8	16.8	369	8.1	40.9
380	400			12:05	14:39	7	7	7	17.5	339	7.9	42.7
400	415		--- trace clay	14:45	16:45							
415	420		--- larger GRAVEL up to 2.3"	18:45	19:32	7	6	7	13.1	350	--	45.9
420	440		--- more GRAVEL with occasional boulder size rocks (bit chatter)	19:43	22:15	6	6	6	13.1	345	--	50.0
440	460			22:22	01:18	6	5	6	12.3	352	--	52.3
460	480			01:29	04:05	5	6	6	12.1	342	--	54.2
480	500			04:14	05:52	6	5	5	14.4	345	--	58.1
500	520			08:15	10:10	5	5	5	16.4	378	--	61.2
520	540			10:15	12:09	4	4	4	16.7	392	--	71.4
540	560			12:16	14:35	5	4	5	18.1	351	--	67.7
560	575			14:42	16:45	Rig Maintenance						
575	580			18:50	19:53	4	4	4	12.7	399	8.3	76.1
580	600			20:19	22:38	4	4	4	12.7	408	8.3	78.6
600	620		--- 597' CLAY, easy drilling, 600 to 605'	22:52	01:03	4	4	4	12.5	400	8.3	81.2
640	660		--- 642' large chips, clay on fractures	01:17	04:45	4	5	4	12.7	245	8.3	68.2
660	680			07:05	08:45	3	3	3	16.2	535	7.2	95.7
680	700			09:00	10:55	3	3	3	18.2	407	7.4	100.0
700	720		--- CLAY at 705' SILTY CLAY 710 to 713'	11:00	14:40	3	3	3	16.7	407	7.9	107.1
720	740			---	19:47	4	3	2	14.1	373	8.2	101.8
740	760		--- 745' increase in SAND, 758' CLAY	20:01	22:10	2	3	3	12.6	379	8.3	118.0
760	780			22:40	00:32	2	2	2	12.3	350	8.5	136.4
780	800			00:42	03:02	2	2	2	11.6	331	8.4	136.8
800	820		--- CLAY at 795', 802', and 808' stiff	03:10	04:45	3	3	2	11.9	291	8.3	109.6
820	840			07:05	09:00	2	2	2	16.6	410	8.1	128.6
840	860		GRAVEL, SAND	09:11	12:42	2	2	2	17.8	392	8.1	138.5
860	880		--- CLAY at 870'	12:54	14:12	2	2	2	17.5	348	8.1	135.5
880	900		SILTY CLAY, with some fine sand	14:20	15:45	2	2	2	18.3	332	8.2	145.2

Notes: drill chatter observed at 375', 387', 491', 557', 576', 586', 670', 679', 695', 730', 748', 754', 780', 795', 813', and 879', indicating the presence of cobble size clasts.

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JA2039

Lithologic Log Summary Well No. RWX- 229T

Location 1820441.6 E, 14431105.6N

Rig Geologist Initials CC, TWR, KJH
Supervisor: C. Brooks

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	GPM
0	40		ALLUVIUM	12:50	22:05				Set 20' x 14" diameter steel casing			
40	60		50'-60' CLAY	22:12	22:29							
60	80		GRAVEL with SAND: subangular	22:32	23:00							
80	100		clasts of quartzite, limestone, and	23:02	23:35							
100	120		volcanic clasts.	23:39	0:08							
120	140			1:35	2:03							
140	160		140'-145' and 155' to 160' CLAY	2:06	2:28							
160	180		Interbedded GRAVEL with SAND	2:32	3:08							
180	200		and thin CLAY layers.	3:12	4:35							
200	220		215' - 220' CLAY with 20% gravel	4:45	5:13							
220	240		---up to 30 mm angular to subangular	7:20	7:43							
240	260		GRAVEL	7:46	8:16							
260	265		---10% CLAY from 260' to 265'	8:20	8:46							
265	280		GRAVEL with SAND	8:51	---							
280	300		---20% clay	---	9:12							
300	320		---315'-320' more GRAVEL, >10mm	9:18	9:45							
320	340		diameter									
320	340		---up to 15mm clasts	10:26	11:10	8.0	8.2	8.5	16.9	460	8.4	36.4
340	360		---345' - 355' angular, less gravel	11:25	12:47	8.0	7.3	6.3	16.7	451	8.4	41.7
360	380		---angular to subangular, up to 15mm			5.7	5.8	5.9	15.1	446	8.3	
380	400		diameter GRAVEL	12:57	14:28							51.7
400	420		370' - 375' <10% CLAY	14:35	16:09	5	5.2	5.8	15.3	452	8.4	56.3
420	440		---up to 20mm GRAVEL	16:17	17:10	5.1	5.6	5.2	15	443	8.3	56.6
440	460		GRAVEL with SAND: subangular to	18:12	19:22	5.2	5.2	5.5	13.6	422	8.4	56.6
460	480		angular up to 2" diameter.	19:34	20:56	4.8	5.9	5.6	13.0	434	8.4	55.2
480	500			21:05	22:16	4.9	5.2	4.7	13.1	438	8.4	60.8
500	520			22:26	0:09	4.3	4.3	4.3	12.6	432	8.4	69.8
520	540		---545'-555' with some clay	0:17	1:41	4.5	4.3	4.8	12.2	428	8.3	66.2
540	560		---trace CLAY	1:48	3:09	3.9	4.5	4.5	11.3	417	8.4	69.8
560	580		---up to 10mm GRAVEL	3:19	4:37	4.7	4.5	4.3	12.6	385	8.5	66.7
580	600		---trace CLAY	7:45	8:50	4.3	4.2	3.6	14.9	437	8.4	74.4
600	620		---600' - 610' more CLAY	9:02	10:28	3.0	3.7	3.4	15.7	425	8.3	89.1
620	640		---625 to 640 CLAY increases	10:37	12:05	3.1	3.1	2.9	15.6	439	8.3	98.9
640	660		plasticity increase	12:15	13:15	2.6	2.6	2.8	14.9	448	8.3	112.5
660	680		CLAY, brown fat	13:26	14:46	2.5	2.6	2.6	14.6	461	8.3	116.9
680	700		SAND with angular to subangular	14:57	16:15	2.3	3.0	2.7	14.7	454	8.3	112.5
700	720		GRAVEL and CLAY	18:50	19:08	2.8	3.0	2.4	14.1	426	8.4	109.8
720	740		720' little CLAY	19:19	21:38	3.2	2.9	3.0	12.8	424	8.4	98.9
740	760		SANDY CLAY	21:49	23:18	3.2	2.9	3.0	12.4	424	8.3	98.9
760	780		coarse poorly graded SAND with	23:28	0:46	2.9	3.0	2.8	12.7	425	8.3	103.4
780	800		GRAVEL and CLAY	0:56	2:32	2.6	2.6	2.8	12.7	425	8.3	112.5
800	820			2:40	4:33	2.5	2.6	3.0	12.5	441	8.3	111.1
820	840		815' trace CLAY	10:42	11:10	2.7	2.7	3.0	15.8	508	8.3	107.1
840	860		up to 15mm diameter GRAVEL	11:17	12:30	2.4	2.7	2.5	15.1	463	8.2	118.4
860	880			12:45	14:09	2.6	2.8	2.8	15.4	418	8.3	109.8
880	900			14:20	16:00	3.0	2.8	3.1	15.4	405	8.3	101.1
				16:15	17:05	2.9	2.8	2.6	14.6	426	8.3	108.4

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JA2040

631	638			2010	2050								
638	644			2050	0530								
644	645	---	640' minor oxidation, quartz veinlets,	0700	0800								
645	647		disseminated traces of molybdenum,	0800	0945								
647	649		sphalerite, pyrite	0945	1147								
649	650			1203	1315								
650	651			1315	1420			24.7	439	7.7			
651	653.5			1420	1720			24.5	478	7.7			
653.5	664	---	655' pyrrhotite, pyrite	1915	0525								
664	665	---	660' molybdenum	0730	0837								
665	667			0837	1030								
667	670			1030	1341			25.7	562	7.9			
670	672			1341	1537			27.7	492	8			
672	675	---	670' molybdenum, pyrite, pyrrhotite	1537	1730								
675	680			1405	0029								
680	683	---	less sulfides	0046	0529								
683	685			0700	0922			24.1	896	7.7			
685	687			0922	1146								
687	688			1146	1405								
688	690			1405	1610								
690				1610	1730								

General Moly, INC. DAILY WATER WELL DRILLING LOG 235P

CONTRACT		WELL NO		DATE	3/4/2008
LOCATION/CODE		235P		CONTRACTOR	Eklund
TIME	START OF WORKING HR	END OF WORKING HR		WEATHER	Cold Warm Snow Melt
DATE			DURATION OF		
DEPTH OF HOLE (ft)			RAINFALL		
DEPTH CASED (ft)			GEOPHYSICS		
				REF. POINT	
LITHOLOGICAL BOUNDARIES AND SAMPLES OF FORMATION					
DEPTH OF CONTACT ZONE		DRILLING PROCESS		DESCRIPTION OF FORMATION	YIELD (gpm)
DEPTH	SAMPLE	FROM	TO	SPEED	REMARKS (Drilling Methods Including Change of Bit)
0-27	Y				Alluvium-Light brown sandy silt with some gravel-mostly mudstone at 0-20' with shale (dark grey) gravel to 27'
27-50					Set 8" surface casing
50-150					Ordovician vinini-Dark grey highly weathered mudstone with brown oxidized faces
150-195					Ordovician vinini-Dark grey mudstone - fractured from 100'-110' with minor quartz layers
195-595					Ordovician vinini-Dark grey to black mudstone with trace quartz and possibly calcite
595-630					Ordovician vinini-Dark grey to black fractured mudstone/shale with trace white mineralization (quartz and/or calcite)
630-645					25 at 440' /changed at 525'
645-775					at 620' /Fractured-lighter grey in color. 600' blew on pipe <1gpm 620' blew on pipe ~1gpm. PH-8.5, T-63.1F at 620' Sample taken
775-785					19 Ordovician vinini-Highly mineralized with calcite on old faces
785-865					Ordovician vinini-Dark grey mudstone - less calcite
865-930					Ordovician vinini-Dark grey mudstone with varying thin layers of quartz and some calcite
930-960					Ordovician vinini-Dark grey to black mudstone finer chips almost no mineralization
960-1120					Ordovician Vinini-Dark grey mudstone, some pyrite and trace quartz
1120-1140					39 at 860'
1140-1500					Ordovician Vinini-Dark grey mudstone, very fine alternating layers of light grey
					60 At 900' Dark grey water
					Ordovician Vinini- Dark grey and light mudstone some green oxidized with euhedral pyrite crystals
					Discharge is lighter grey
					Ordovician Vinini-Black-Dark grey finer chips, still with subhedral pyrite
					Black discharge sulfur odor again
					PH-8.68, T-63.6F, Ec-626mC
					88
					Ordovician Vinini-Light grey mudstone
					PH-8.6, T-63.6F, Ec-664mC
					110
					Ordovician Vinini-As above
					120gpm at 1420', PH-8.41, T-64.1F, Ec-636mC

235P-Daily log drilling supervisor1

001876

JA2042

Summary Lithologic Log Well No. TM-B

Dates Logged 10/29/2008 to 11/7/2008

Initials KG, EC, CB, KH

Location: 11S 574019E, 4395886N, 6598'

Supervisor: Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Drill Rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	
0	20		unconsolidated ALLUVIUM	18:32	19:10							1.9
20	40		MUDSTONE: microcrystalline, dark grey	---	---							
40	60			---	14:22							
60	80			14:22	15:37							3.8
80	100			15:37	16:45							3.4
100	120			16:45	---							
120	140			---	---	Lost circulation at 2055 to 445						
140	160			---	---							
160	180			---	---							
180	200		hardness increasing, chips are 10 to 15 mm	---	12:15							
200	220		very hard	12:15	14:39							7.2
220	240		calcareous	14:39	---							
240	260		glassy luster, calcite veinlets	---	21:55							
260	280		few shaley partings, less calcite	21:55	23:13							3.9
280	300			23:04	---							
300	320		smaller cuttings (1 to 2 mm diameter),	---	04:35							
320	340		glassy luster is more prominent, less calcareous	---	03:02							
340	360			04:35	---							
360	380			---	11:15							
380	400		decrease in hardness. No HCl reaction	11:15	---							
400	420			---	15:47							
420	440			15:47	18:25							7.9
440	460			18:25	23:22							14.9
460	480			23:22	02:20							8.9
480	500		trace silica	02:30	08:42							18.6
500	520		calcareous, hardness 5 to 6	08:42	12:32							11.5
520	540		trace silica	12:32	17:30							14.9
540	560			17:30	20:47							9.9
560	580		dark grey with calcite	20:47	00:22							10.8
580	600			00:22	05:38							15.8
600	620			05:38	---							
620	640		competent	---	01:02							
640	660			01:02	---							
660	680			---	10:45							
680	700		trace silica, fine chips (1-2mm), H=6	10:45	---							
700	720			---	00:03							
720	740		hardness > 6	00:03	06:30							19.4
740	760			06:30	15:30							27.0
760	780			15:30	19:30							12.0
780	800			19:30	00:36							15.3
800	820			00:36	03:25							8.5
820	840			03:25	06:53							10.4
840	860		trace pyrite crystals locally	06:53	09:21							7.4
860	880			09:21	11:43							7.1
880	900			11:43	14:38							8.8
900	920		1-2mm chips, trace calcite crystals, H=5-6	14:38	16:34							5.8
920	940			16:34	20:45							12.6
940	960			20:45	00:11							10.3
960	980			00:11	05:40							16.5
980	1000			05:40	08:47							9.4

Note: No flow rate or water chemistry data were collected due to the use of drilling mud. Mud viscosity was held between 50 and 58 seconds. The penetration rate has been calculated in the last column.

001877

JA2043

Detailed Lithologic Log Well No. TFX-2

Dates Logged 11/20/2008 to 12/2/2008

Location: 11S 573386E, 4398079N

Initials KH, KG, EC, SJ

Supervisor: Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Comments	Drill Rate
From	To			Start	Finish		min/ft
0	20		SILT	20:55	21:40	Install surface casing. Wait for cement to cure.	2.3
20	40		Shaley MUDSTONE: yellowish brown,	03:30	04:28		2.9
40	60		CLAYSTONE: brown with yellow clay filled fractures.	04:28	05:03		1.8
60	80			05:14	06:09		2.8
80	100		MUDSTONE: brown, 20% SILT, 10% fractures with clay fill, iron stain.	06:09	07:20		3.6
100	120			07:20	09:32		6.6
120	140		MUDSTONE with QUARTZITE: silica cement, clay filled fractures.	09:32	10:14		2.1
140	160			10:14	11:54		5.0
160	180		MUDSTONE: calcite filled fractures, oxidized, weathered, few shaley partings.	--	16:09		---
180	200			16:09	17:39		4.5
200	220			17:39	18:32		2.7
220	240		--- more calcite.	18:32	19:47		3.8
240	260			19:47	21:17		4.5
260	280		--- fracture.	21:17	22:23		3.3
280	300			22:23	23:55		4.6
300	320			23:55	01:46		5.6
320	340		--- dark gray, moderately indurated, h= 5.5, 5 to 15% silt, silica cement, silica filled fractures, trace carbon.	01:46	06:39		14.7
340	360			06:39	07:34		2.8
360	380			07:34	08:18		2.2
380	400		--- trace disseminated pyrite, variable hardness 4 to 6.	08:18	09:28		3.5
400	420			09:28	11:20		5.6
420	440		--- softer clayey beds.	11:20	12:08		2.4
440	460		--- trace carbon.	12:08	13:22		3.7
460	480		--- smaller cuttings	13:22	17:13		11.6
480	500		--- trace clay.	17:13	19:31		6.9
500	520			19:31	21:54		7.2
520	540			21:54	23:30		4.8
540	560			23:30	01:21		5.5
560	580			01:21	03:14		5.7
580	600		--- slightly fissile to non-laminated	03:14	06:20		9.3
600	620		Fracture 618'.	06:20	08:03		5.2
620	640		--- trace calcite, pyrite	08:03	11:38		10.8
640	660		Fracture 641.	11:38	13:43		6.3
660	680		--- no pyrite.	13:43	15:31		5.4
680	700			15:31	16:41		3.5
700	720		--- siliceous, cherty	16:41	18:43		6.1
720	740		--- conchoidal fracture.	18:43	20:16		4.7
740	760			20:16	22:17		6.1
760	780			22:17	00:21		6.6
780	800			00:21	02:27		6.3
800	820		trace pyrite.	02:27	05:36		9.5
820	840		high percentage of silica.	05:36	09:15		11.0
840	860			03:05	05:00	Prepare for days off. Clean and winterize mud hoses, pump and tank. Trip out to 85'.	5.8
860	880		fractures 861 - 868, 10% silt.	05:00	07:30		7.5
880	900			07:30	12:36		15.3
900	920			12:36	19:34		20.9
920	940		--- no apparent fractures.	19:34	22:32		8.9
940	960			22:32	02:42		12.5
960	980			02:42	05:31		8.5
980	1000			05:31	07:53		7.1

Note: No flow rate or water chemistry data were collected during drilling due to the use of drilling mud. The drilling mud viscosity was held between 44 and 58 seconds by adding max gel, polypac R, and water to the drilling mud. The penetration rate has been calculated in the last column.

001878

JA2044

Summary Lith Log

Lithologic Log Summary Well No. TXF-3

Dates Logged 10-4-2008 to 10-7-2008

Initials CB, EC, KG

Location: 6740', Zone 11S 0573608E, 4097707N UTM taken with eTrex

Rig Supervisor: Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	PH	(gp m)
0	20		sandy SILT with thin interbeds of GRAVEL	12:25	12:35	Installed 6" diameter steel casing.						
20	40			14:15	14:23							
40	60		20' Clayey MUDSTONE: weathered	14:25	14:32							
60	80		--- fractured grey and tan MUDSTONE, with iron staining, very thin calcite vein fill at 70'	14:34	14:40							
80	100			14:43	14:49							
100	120			14:52	14:57							
120	140		135' to 165' transition zone to dark grey MUDSTONE, 145' -155' large chips.	15:05	15:10							
140	160			15:14	15:20							
160	180			15:23	15:39							
180	200			15:42	15:48							
200	220			15:51	15:57							
220	240		Dark gray argillite MUDSTONE, hardness of 6, silicic cementation, trace secondary iron sulfide crystals as large as 3/8"	16:00	16:06							
240	260			16:09	16:15							
260	280			16:19	16:25							
280	300			16:30	16:37							
300	320			16:41	16:49							
320	340		---340', minor fat clay in return	16:53	17:01							
340	360			17:46	17:57							
360	365			18:03	18:06							
365	380			18:06	18:14							
385	400		380' to 420' Fracture zone containing higher concentrations of sulfides	18:24	18:36							
400	405			18:36	18:38	22	24	27	16.7	993	06.43	12.3
405	425		Dark gray MUDSTONE: hard	18:47	19:20	24	26	25	16.7	988	8.4	12.0
425	445			19:26	19:39	29	30	39	16.9	970	8.5	9.2
445	465		--- 450' softer MUDSTONE	19:49	20:00				16.8	995	8.5	
465	485			20:08	20:27				16.5	1044	8.2	
485	505		--- 495' to 505' softer, increased water	20:38	20:56	16	17	18	15.7	1108	8.46	17.8
505	525			21:21	21:57	15	17	15	15.2	1069	8.4	19.1
525	545		--- 535' to 565' softer, increased water production	22:14	22:56	15	16	17	15.5	1091	8.3	18.6
545	565			00:34	00:46	9	8	9	13.8	1070	8.2	33.6
565	585		--- hard dark grey with microcrystalline	01:00	01:13	10	12	14	14.1	1052	8.1	24.9
585	605		--- fracture 589'	01:25	01:34	24	24	23	14.4	1016	8.1	12.7
605	625		--- pyrite, carbonaceous, with microcrystalline quartz	01:48	02:00	Drill string stuck at 0200 hrs. dislodged pipe.						
625	645			16:05	16:28	Installed rock bit. See detail log.						
645	660			16:28	16:39	12	12	12	20.3	986	7.8	25.0
660	680			17:38	02:06							
680	700		--- 700' to 740' fractured zone containing quartz and pyrite veinlets. Increased water production.	02:50	03:15	4	4	5	13.5	1168	7.9	68.2
700	720			03:27	03:40							
720	740		shaley, 755' - 785' fractured.	06:10	06:30	4	3	3	14.7	369	7.7	87.4
740	760			07:15	07:37	4	4	4	16.3	392	7.5	79.6
760	780		blocky MUDSTONE with quartz and pyrite veinlets	07:44	09:27	4	4	4	17.0	422	7.5	75.0
780	775			10:03	10:29	5	4	4	21.1	409	7.7	70.3
800	820		810' - 815' fractured mudstone	10:38	11:09	10	10	10	20.1	487	7.7	30.0
820	840		835' - 836' QUARTZITE	11:28	12:30	4	4	4	19.7	471	7.7	75.0
840	860			12:39	13:20	4	4	4	20.4	501	7.4	73.8
860	880			13:23	13:58							

Lithologic Log Summary Well No. TXF-4

Dates Logged: 9/2/2008 – 9/3/2008

Initials CB, EC

Location:

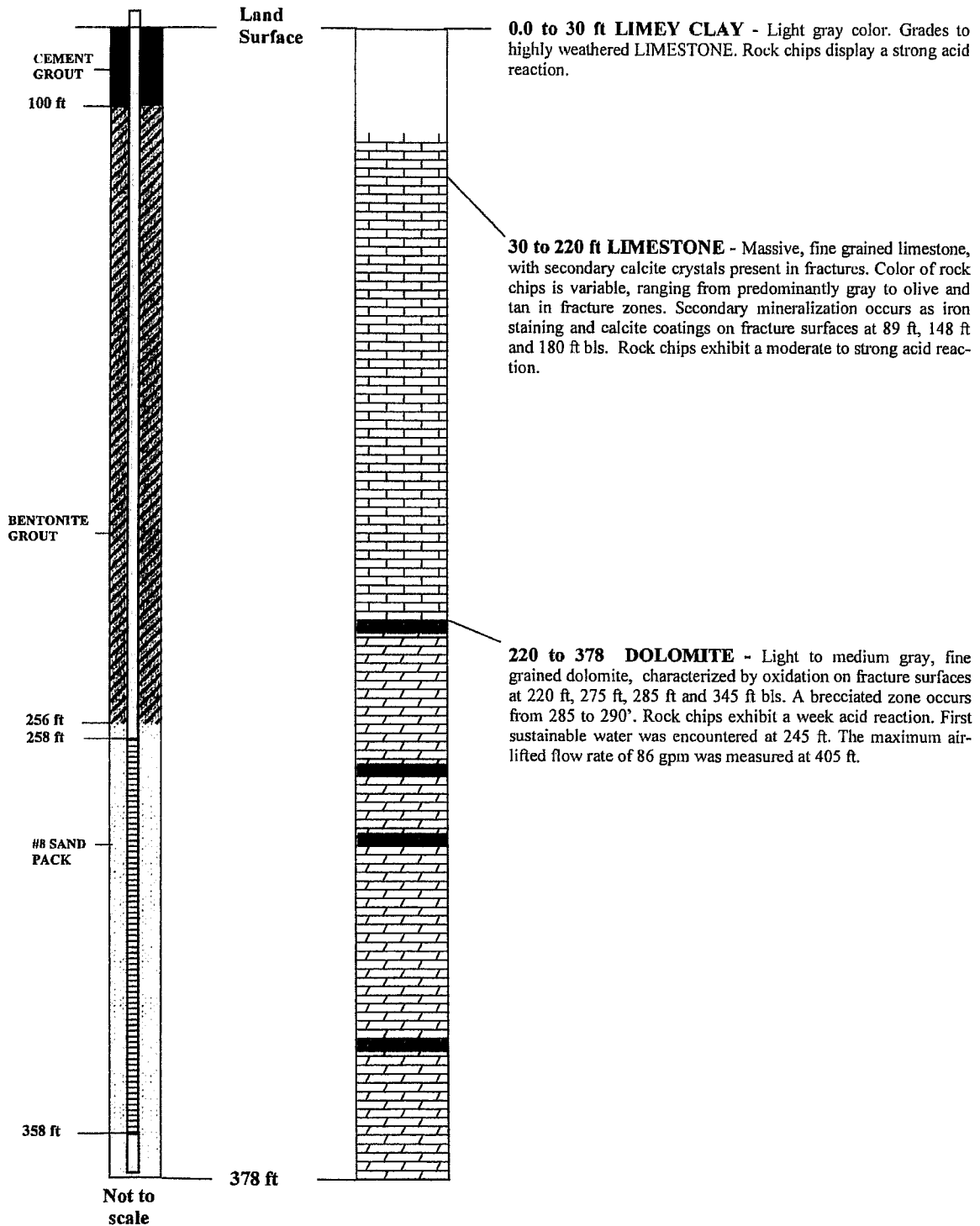
Rig Supervisor: Kati Gibler

Depth Interval		Rock Sym	Rock Type	Drill Time		Water Production			Water Quality			Flow rate
From	To			Start	Finish	Sec	Sec	Sec	T	K	pH	)
0	20		Light brown, highly weathered MUDSTONE	13:26	13:35	Installed 6" diameter steel casing						
---	---			---	---	Rig geologist: Evan Champa 10/2/08						
20	25			17:50	17:52							
25	45			17:55	18:02							
45	65		Fine grained, black to grey MUDSTONE, with trace sulfide crystals	18:05	18:11							
65	85			18:16	18:21							
85	105			18:25	18:31							
105	125			18:36	18:41							
125	145		---120' -150', color grades from black to gray	18:45	18:51							
145	165		---160', larger chips, open fractures, color grades to black	18:55	19:04							
---	---			---	---							
165	185			19:08	19:17							
185	205			19:21	19:28							
205	225			19:34	19:42							
225	245			19:46	19:55							
245	265			20:00	20:09							
265	285			20:15	20:26							
---	---			---	---							
285	305		---302', open fractures	20:36	20:47							
305	325			20:50	20:58							
325	345		---325', open fractures	21:13	21:24							
345	365			21:36	21:47							
365	385			22:01	22:13	19	20	21	17.9	1756	8.08	15
385	405			22:31	22:44	32	29	30	17.4	1721	8.10	10
405	425			22:50	23:02	28	29	30	16.8	1689	8.04	10
425	445			23:13	23:24	23	26	30	16.9	1627	8.02	11
445	465		---449'-455', open fractures	23:36	23:47	18	20	20	16.5	1646	8.04	16
465	485			23:54	00:05	17	15	18	16.2	1603	8.1	18
485	505			00:14	00:26	14	17	16	16.2	1616	8.0	19
505	525			00:36	00:48	15	15	16	16.3	1658	8.02	19
525	545			00:56	01:08	12	12	13	16.2	1673	8.00	25
545	565			01:16	01:25	12	12	11	15.3	1654	7.88	26
565	585			01:46	01:56	11	12	11.1	15	1632	7.94	26
585	605			02:13	02:25	12	12	13	15.0	1541	8.05	25
605	625			02:35	02:46	14	13	13	15.0	1508	8.01	23
625	645			02:56	03:09	15	12	12	15.1	1513	8.00	23
645	665			03:16	03:27	11	27	42	15.3	1468	7.97	11
665	685			03:38	03:48	11	13	13	14.8	1472	8.03	24
685	705			03:55	04:10	14	11	11	13.6	1446	8.07	25
705	725			04:18	04:30	9	9	10	13.9	1498	8.02	33
725	745			04:36	04:48	8	9	9	14.2	1545	7.98	36
---	---			---	---	Rig Geologist: Courtney Brooks 10/3/08						
745	765		Dark gray MUDSTONE, trace sulfide crystals locally up to 3mm in diameter, fractures to 800'	05:40	05:51	9	8	9	13.6	1506	7.97	36
765	785			06:00	06:13	8	8	8	15.1	1466	7.96	39
785	805			06:20	06:32	9	8	8	15.0	1439	7.98	36
805	825			06:39	06:52	9	8	8	15.2	1263	7.98	35
825	845		---830', trace sulfide and calcite crystals locally up to 2mm in diameter	07:00	07:10	8	8	8	15.4	1267	7.95	39
845	865			07:17	07:30	9	9	9	14.6	1280	7.97	33
865	885			07:38	07:50	8	8	8	15.6	1286	7.94	38
885	905			07:58	08:11	8	9	9	16.4	1310	7.97	36
905	925			08:19	08:32	8	8	8	15.7	1367	7.96	39
925	945			08:40	08:54	9	9	8	15.9	1345	7.96	35
945	965			09:03	09:13	8	8	8	15.7	1312	7.93	37
965	985			09:22	09:32	8	7	7	15.8	1293	7.95	42
985	1000			09:42	09:53	8	8	8	15.6	1233	7.92	39

001880

JA2046

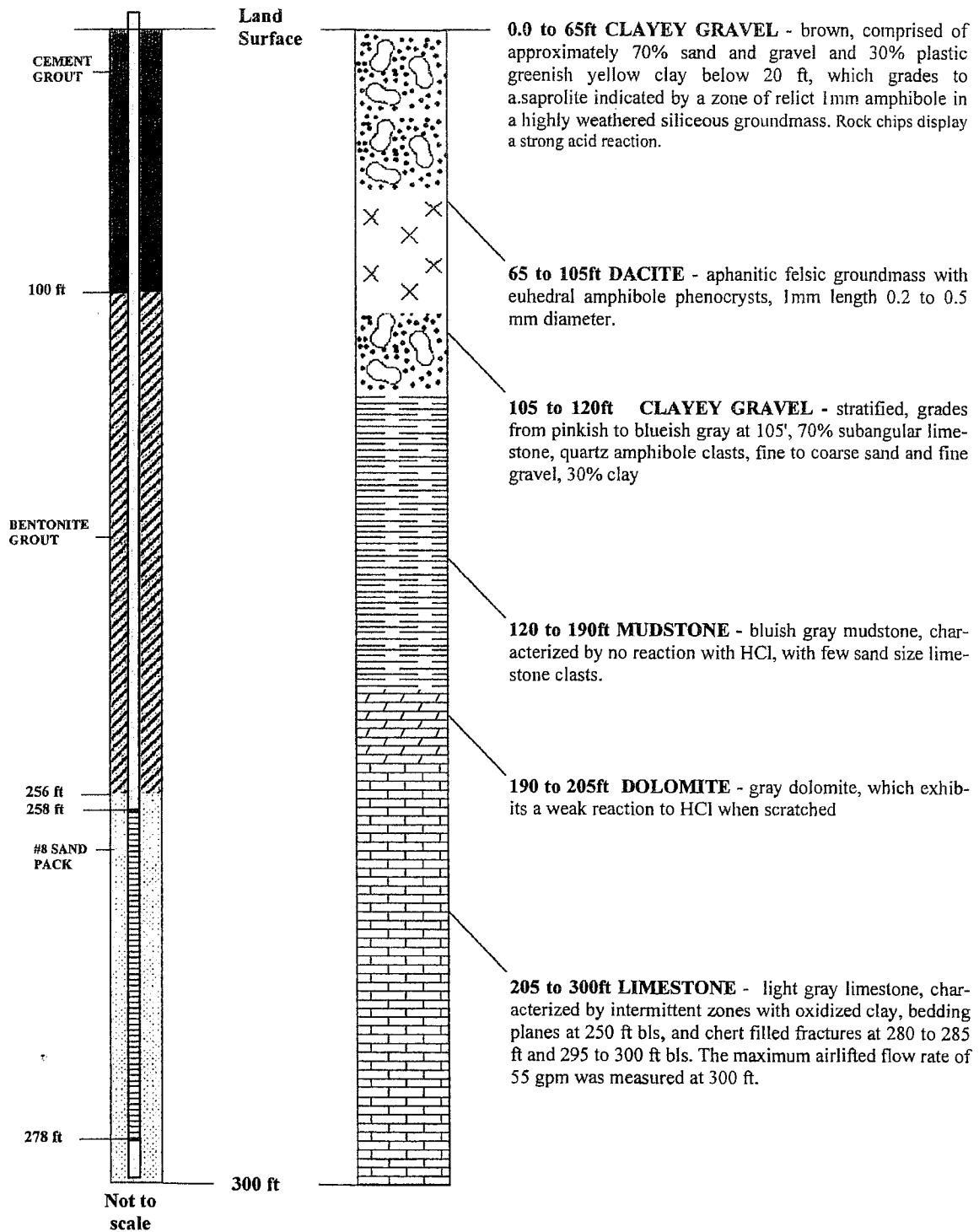
SUMMARY COMPLETION LOG FOR RWX—LOWER ROBERTS CREEK MW



001881

JA2047

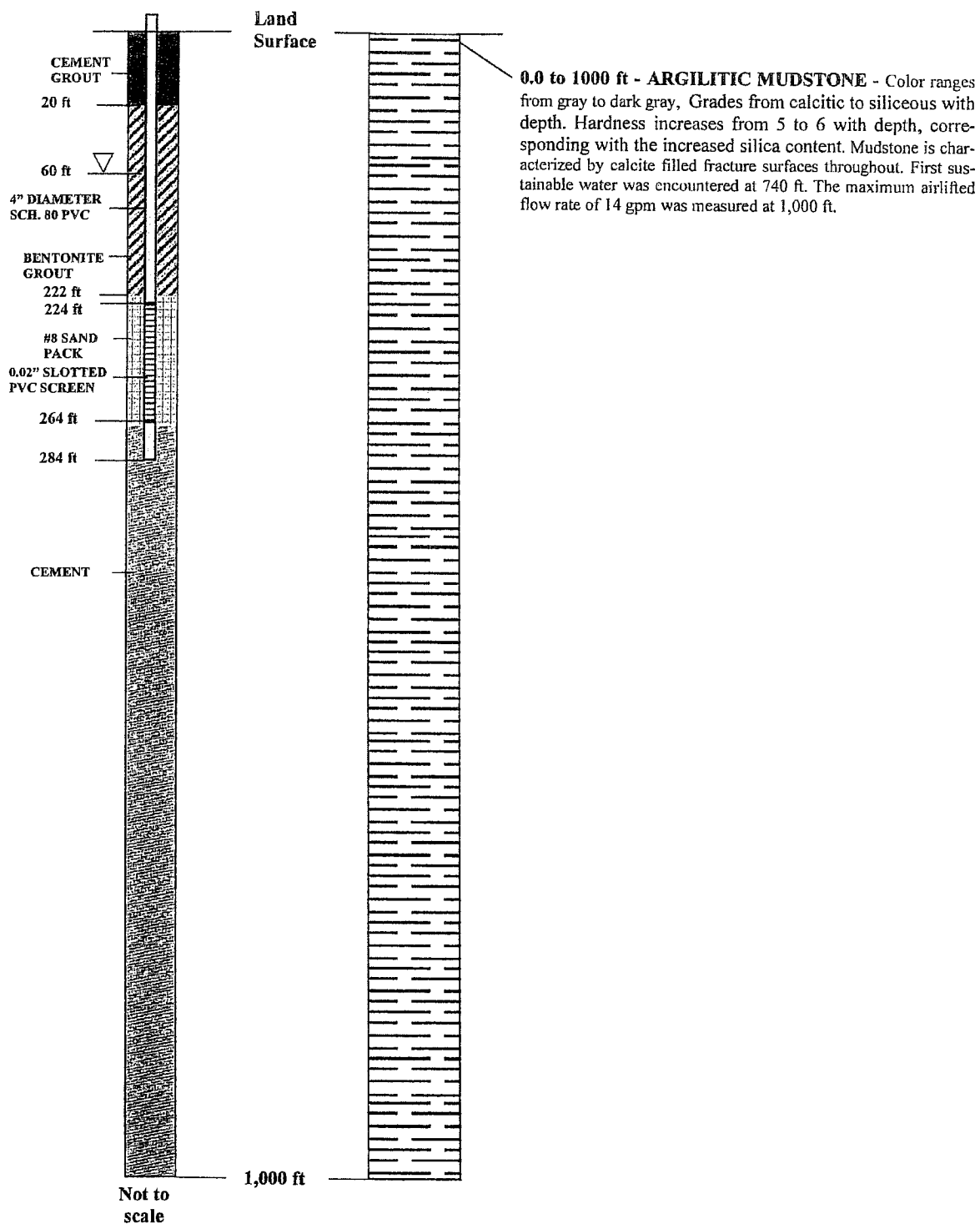
SUMMARY COMPLETION LOG FOR RWX—MIDDLE ROBERTS CREEK MW



001882

JA2048

SUMMARY COMPLETION LOG FOR RWX—FAR EAST MW

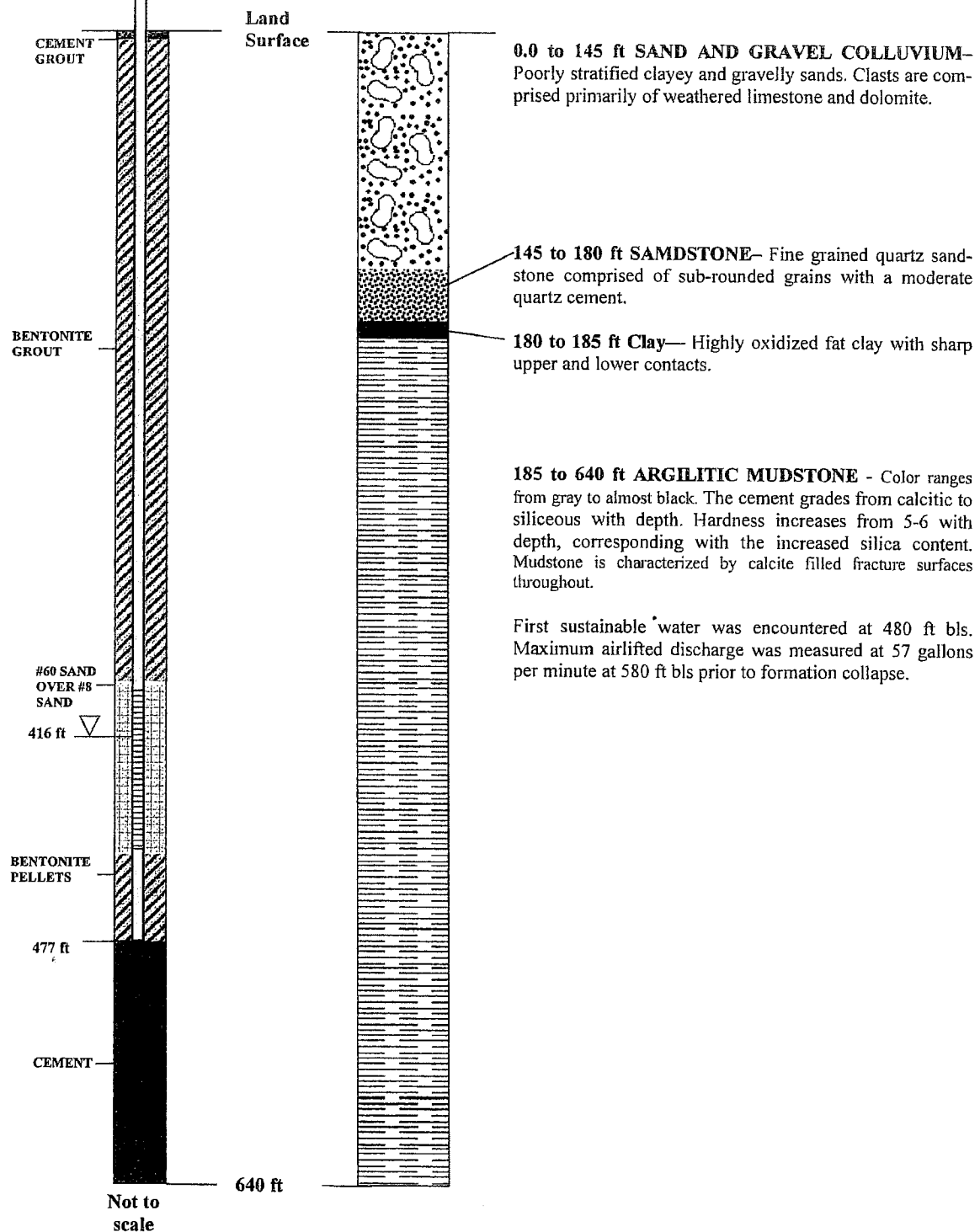


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JA2049

SUMMARY

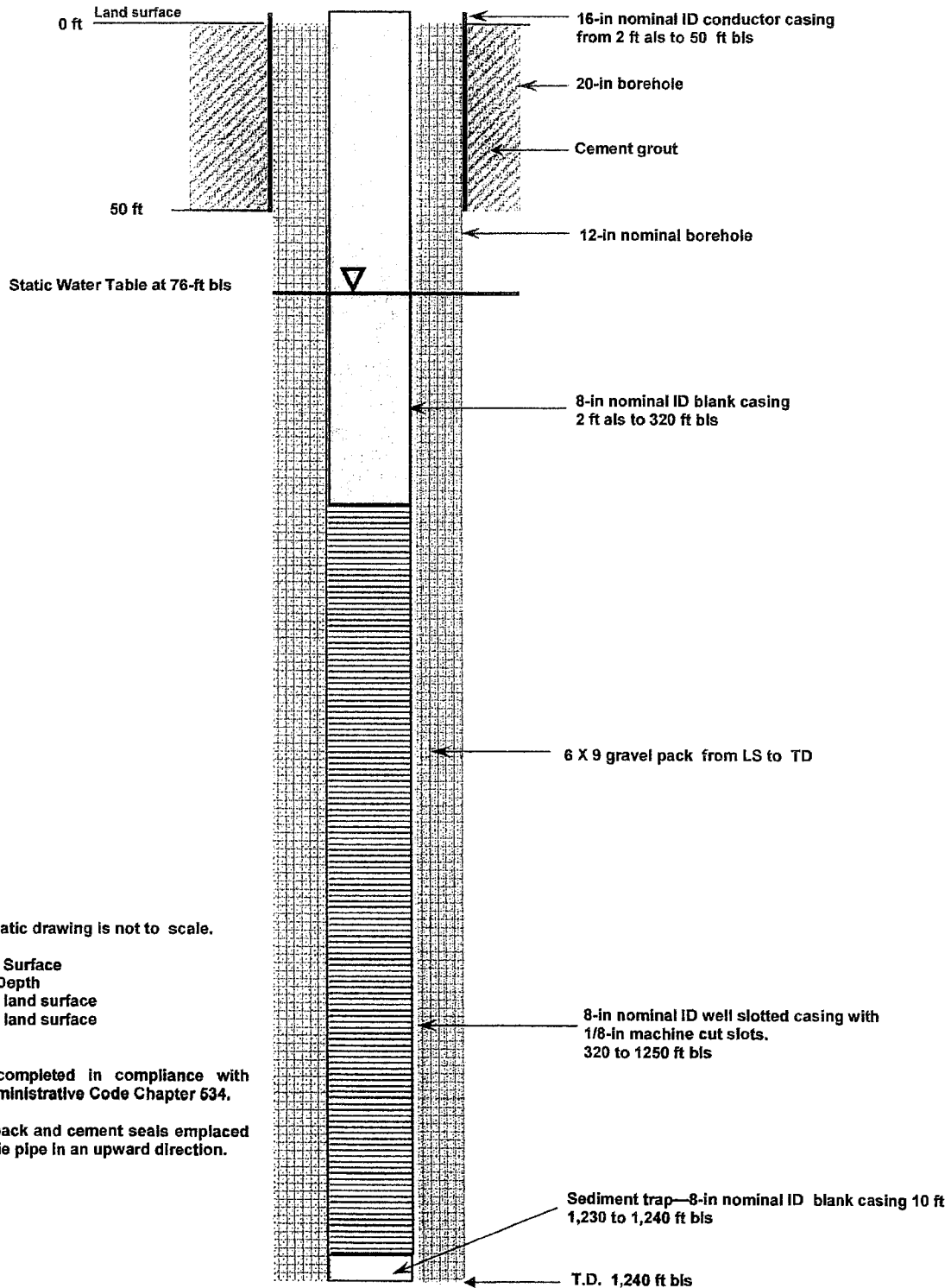
COMPLETION LOG FOR RWX—FAR WEST MW



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JA2050

SCHEMATIC WELL COMPLETION DIAGRAM FOR TEST WELL 203T



NOTES:

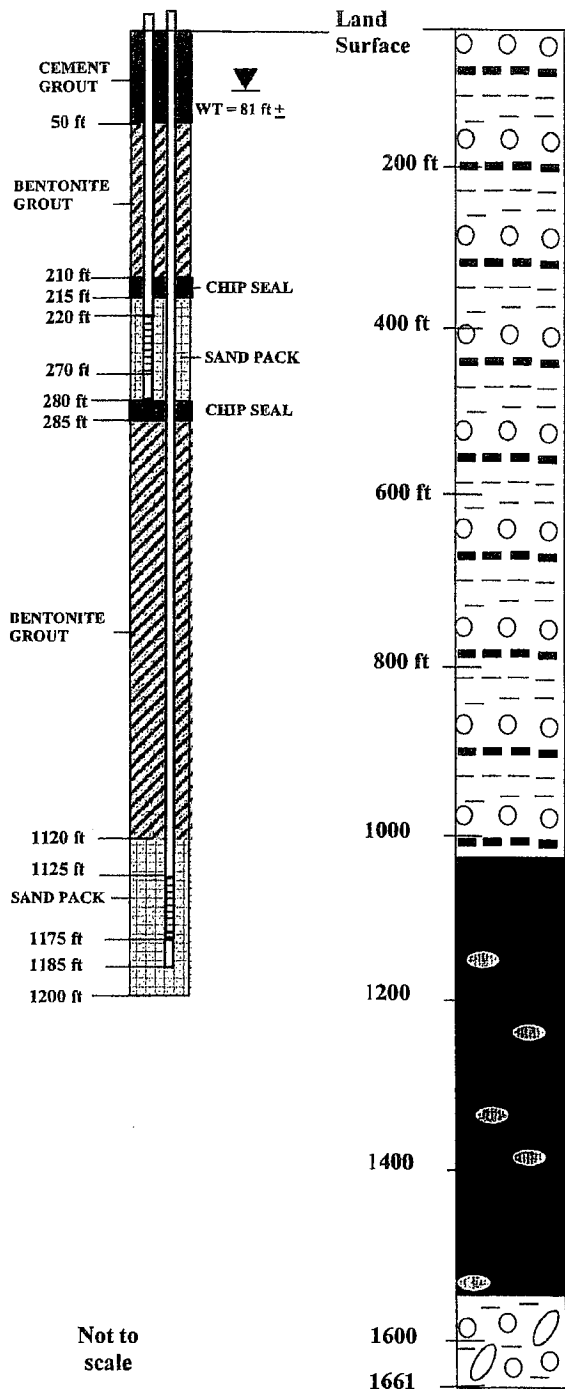
This schematic drawing is not to scale.

LS = Land Surface
 TD = Total Depth
 als = above land surface
 bls = below land surface
 ft = feet

All work completed in compliance with Nevada Administrative Code Chapter 634.

All gravel pack and cement seals emplaced with a tremie pipe in an upward direction.

SUMMARY COMPLETION AND LITHOLOGIC LOG FOR RWX-203 MSMD

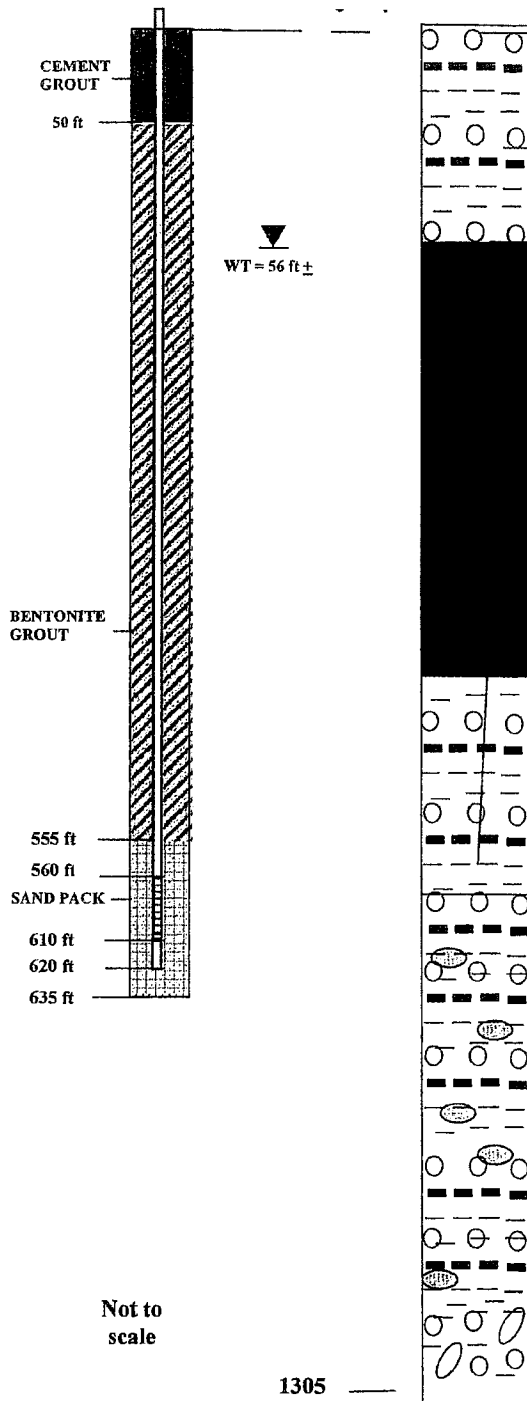


0.0 to 1025 ft VALLEY-FILL DEPOSITS—LACUSTRINE SEDIMENTS (VF3) and OLDER ALLUVIUM (VF1) - Thick sequence of interbedded locally derived alluvial materials and lacustrine clay and silt. Alluvial units contain coarse to fine-grained sand and fine to medium-grained gravels in a clayey matrix. Lacustrine sediments are clay and silt-rich. Clay content ranges from 5 to 95%. Clay and silts become hard from 585-630 ft and stiff from 1010-1015 ft. Clasts in alluvium are predominantly sandstone, siltstone, limestone, minor dolomite, chert, basalt and tuff clasts. Basalt clasts increase near the base of the sequence (805-1025 ft) from 5 to 20%. Color variable, black, tan, green, red, orange, pink and white. Moderate to strong acid reaction.

1025 to 1541.5 ft VOLCANIC -TERTIARY BASALT (VOL1) - Thick basalt flow sequence, black to dark gray and predominantly unweathered with minor (<5%) clay alteration and traces of calcite mineralization generally in thin veinlets. Secondary mineralization occurs as light blue to greenish blue opaline material altered to clay locally and white to clear opaline and calcedonic quartz. Traces of iron and manganese oxides are found throughout. Massive from 1025-1120 ft. Vesicular, hard, and glassy from 1120-1145 ft and 1200-1350 ft. Few to no vesicles from 1350-1445 ft. Vesicles are rounded to flat with local occurrences of clay lining. From 1445-1539.7 ft the basalt is massive. Core began at 1240 ft and several structural elements could be identified in the core segments. From 1275-1320 ft numerous joints and fractures and one fault are present. Joints display low to high angles ranging from 10 -70°. A low angle fault occurs at about 1280 ft and dips at 40°, with slickensides on fracture surfaces and brecciated zones. Fracture surfaces are clean except in the brecciated zones associated with the fault where crackle textures are filled with calcite, opal, clay, and rounded to subangular clasts of basalt. Calcite crystals common in vugs and on druzy quartz. At 1312 ft slickensides are present on fracture surfaces indicating another possible fault zone but there is less clay alteration and fewer fractures. At 1393 ft, calcite, clay, and druzy quartz fillings increase on fracture surfaces. From 1539.7-1541.5 ft a transitional zone occurs with basalt and the underlying conglomeratic sediment coarsening downward sequence.

1541.5 to 1661 ft (TD) VALLEY-FILL DEPOSITS - CONGLOMERATE (VF3) - Predominantly poorly sorted, poorly to moderately-well indurated sediments that contains clasts that range in size from fine sand to 2-in. gravels to 12-in. fragments in expansive clay matrix. Clasts are predominantly limestone with lesser quartz-rich tuff, black basalt, minor chert, and silicified breccia fragments. Sediment is clayey from approximately 1555-1565 ft with some calcite in the clay and silt. At 1647.4 ft the sediment becomes increasingly finer and becomes moderately to well sorted. From 1656-1660 ft is a thin bed of pinkish tan freshwater limestone (marl) with expansive clays at 1658.8 ft. Below 1660 ft the same conglomeratic sediment as above persists until 1661 ft (TD)

SUMMARY COMPLETION LOG FOR RWX-204 MSMD



0.0 to 55 ft VALLEY-FILL DEPOSITS - LACUSTRINE SEDIMENTS (VF3) - Thin sequence of locally derived fluvial and lacustrine materials, predominantly clays with lesser sand and fine gravels. Clay content ranges from 70 to 85%. Clays are stiff and hard with a calcite component. Sands are generally very fine to fine grained. Local gravels occur especially toward lower contact at 55 ft with clasts of basalt, crystal tuff and quartz feldspar porphyry. Color of sediments is variable including brown, reddish brown, tan and white. Sediments display moderate to strong acid reaction.

55 to 115 ft VALLEY-FILL DEPOSITS - OLDER ALLUVIUM (VF1) - Thin sequence of locally derived fluvial and alluvial materials, coarse to fine-grained sand and fine to medium-grained gravels in a clayey matrix. Sands comprise up to 70%, decreasing toward base where gravels increase 70%, indicating a general fining upward sequence, overlain by lacustrine lake bed clays. Gravel clasts consist predominantly of sandstone, limestone, basalt and minor chert clasts. Color variable, black, tan, green, red, orange, pink and white. Moderate to strong acid reaction.

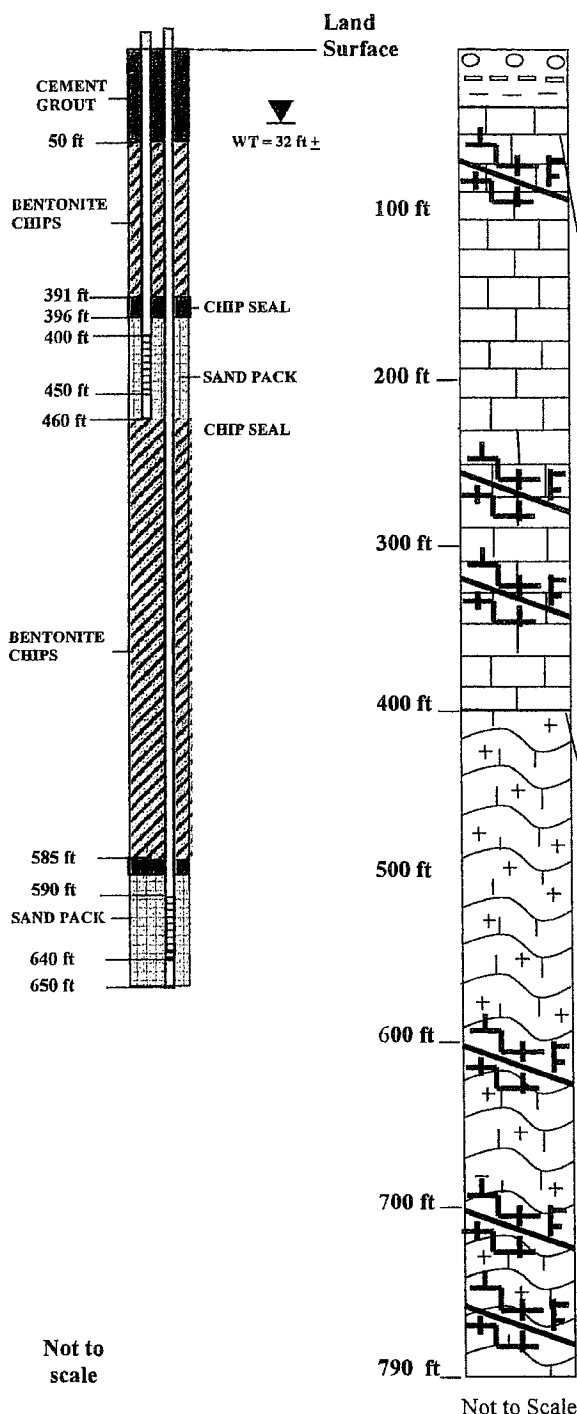
115 to 665 ft VOLCANIC - TERTIARY BASALT (VOL1) - Thick basalt flow sequence consisting of massive to weakly vesicular black to dark gray and light gray basalt flows. Basalts are predominantly unweathered with minor (<5%) clay alteration and traces of calcite mineralization generally in thin veinlets. Secondary mineralization occurs as red iron oxide coatings, pale blue to greenish blue calcedonic quartz in veinlets with clay alteration. Vesicle content varies from trace to 2%, filled with white to dark gray opaline quartz +/- calcite. Traces of iron and manganese oxides are found throughout. Flows are generally massive with vesicular zones noted from 175 to 230 ft, from 360 to 445 ft. From 625 to 635 ft a zone near the basal contact occurs where the basalt is altered and/or weathered and consists of predominantly clay with sand and gravel, possibly a flow top. The basal contact is sharp with the underlying conglomeratic sediments.

665 to 1305 ft (TD) VALLEY-FILL DEPOSITS - TERTIARY SILTY SANDSTONE and CONGLOMERATE (VF3) - Thick sequence of silty sandstone or weakly consolidated sediments grading downward to clayey and sandy conglomerate. From 665 to 1000 ft, the sediments consist predominantly of light brown to dark brown, fine to medium sand with a silt component, with local beds of pebbly sandstone. These units also contain beds of clay and minor gypsum. Pebbly beds contain clasts of mudstone, quartz feldspar porphyry, chert and sandstone. From 1000 ft to TD at 1305, the sequence consists predominantly of brown conglomeratic sandstone with a clay and sand-rich matrix. Below 1035 ft, the matrix clay content ranges from 10 to 50%. Matrix also contains a calcite and gypsum component, possibly as beds within the sequence. Coarser sections contain clasts of mudstone, chert, quartz feldspar porphyry that range in size from fine sand to 1-in. gravels. Moderate to strong acid reaction.

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SUMMARY COMPLETION LOG FOR RWX-205 MSMD

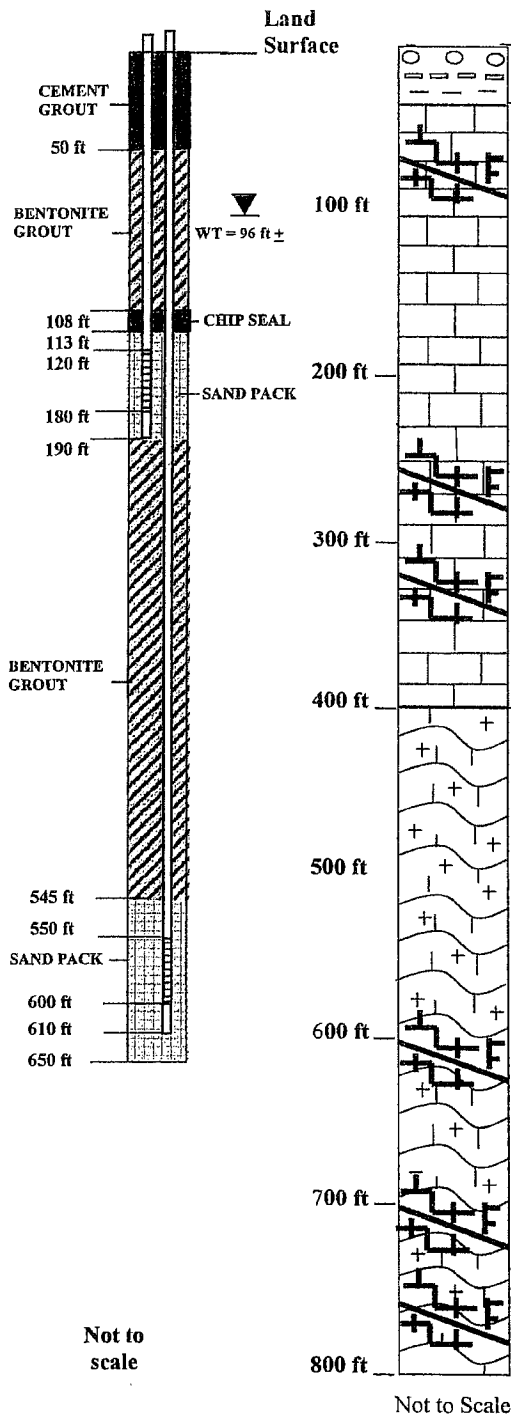


0.0 to 80 ft VALLEY-FILL DEPOSITS - LACUSTRINE SEDIMENTS (VF3) - Thin sequence of locally derived fluvial and lacustrine materials, with silts grading downward into silty gravels, clayey sand and sands and clays at base of the unit. Silty-rich sediments from surface to 12 ft consist of silty calcareous lake sediments overlying silty sands with gravel from 12 to 65 ft. containing locally derived clasts of sandstone, mudstone and quartz feldspar porphyry to 1 in. in a similar silty matrix. From 65 to 70 ft a bed of clayey sands separates the lower interbedded section from 70 to 80 ft of sands and calcareous clay beds. Sands are generally medium-grained. Color of sediments is variable including tan to gray-orange and grayish reds at the base. Sediments display moderate acid reaction to 12 ft, and weak to no reaction from 12 to 77 ft and from 77 to 80 ft a strong reaction.

80 to 535 ft PALEOZOIC ROCKS - DOLOMITE and ALTERED LIMESTONE (CA1) - Thick unit of predominantly dolomitic limestones with silicification and argillic alteration present. Carbonate rocks are generally argillically altered from 80 to 165 ft, with silicification in local zones with silicified limestone and mudstones (jasperitic zones) in layers, especially from 110 to 140 ft. Carbonates contain marble from 155 to 180 ft, and become siltier below 170 ft to the base at 535 ft. Granular pyrite (1-2%) occurs from 80 to 210 ft, locally to 1% from 210 to 340 ft, 2-3% from 340 to 400 ft and 1% from 400 to 535 ft. Locally up to 1% calcite veining occurs from 80 to 400 ft, with 2-3% from 400 to 535 ft. Rock becomes more reactive to acid below 165 ft, with silty limestone as a predominant component. Locally there are small fractures and shears especially toward the base of the unit. Color is variable with dark to light gray and gray brown. Acid reaction is weak to moderate from 80 to 155 ft and moderate to strong from 155 to 535 ft.

535 to 790 ft PALEOZOIC ROCKS - LIMESTONES (CA1) - Thick unit of predominantly massive to crystalline and fossiliferous limestones. Limestones are argillically altered from 540 to 635 ft with faulted, sheared, broken and lesser brecciated zones from 535 to 635 ft and 660 to 670 ft. Calcite veining ½ to 4 %, locally with 10-15% veining near faulted zones at 590 to 635 ft and 665 to 670 ft. Secondary mineralization (FeOx) occurs as 1 to 4% goethite and hematite from 540 to 690 ft. Color is variable with tan and cream colors, gray and light to dark brown. Strong acid reaction.

SUMMARY COMPLETION AND LITHOLOGIC LOG FOR RWX-206 MSMD

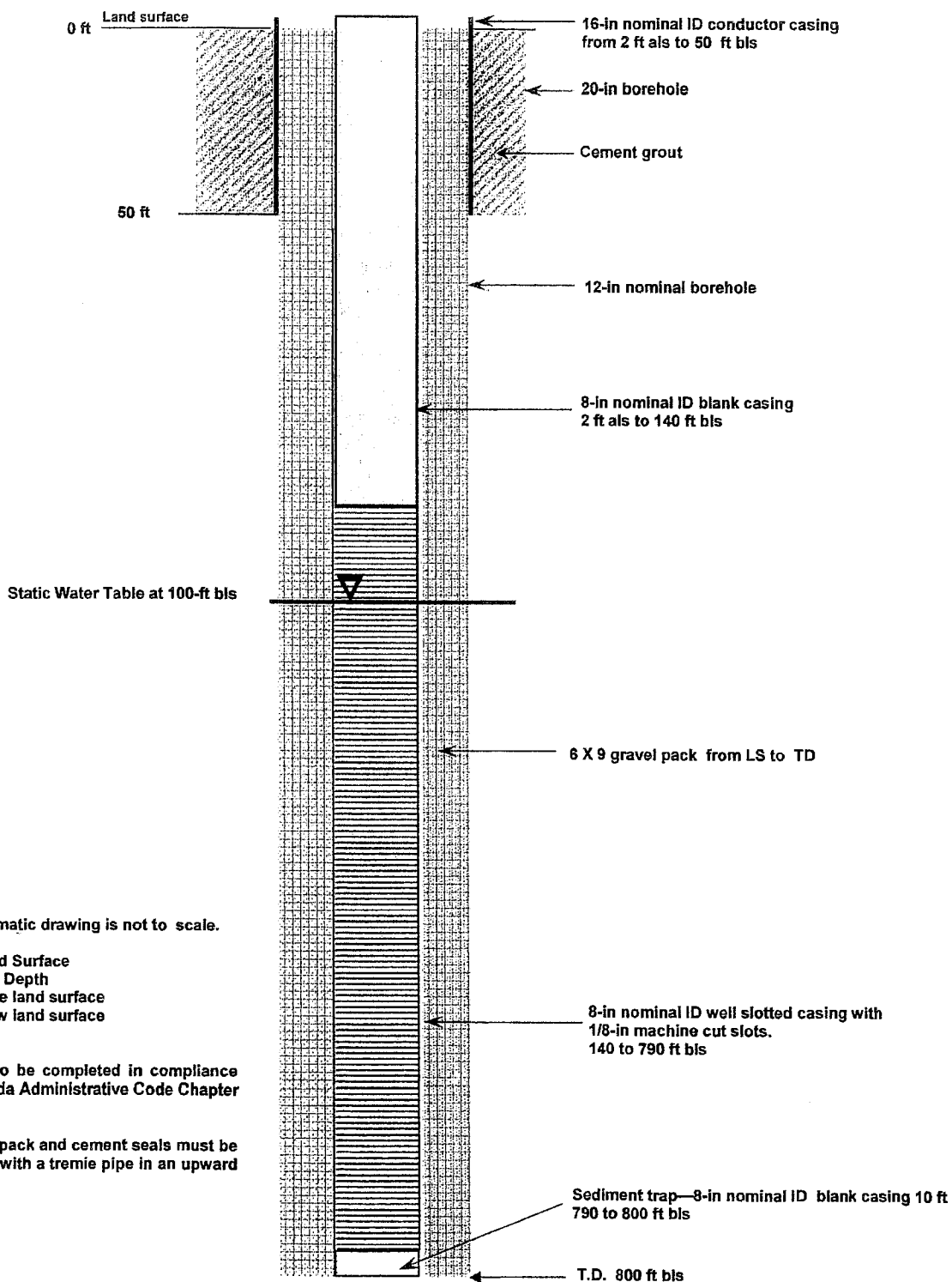


0.0 to 43 ft VALLEY—FILL DEPOSITS - OLDER ALLUVIUM (VF1) and LACUSTRINE SEDIMENTS (VF3) - Thin sequence of locally derived fluvial and alluvial materials, poorly sorted, fine to coarse-grained sand, fine to medium-grained pebbles in a silty and clayey matrix. From 0.0 to 35 ft sequence is typical of silty lakebed sediments. Approximately 5% pebbles near the top, increasing to 30% at 35 ft. Pebble clasts are limestone, dolomite, siltstone, basalt, and quartz porphyry and range in size from 12 to 25 mm in this interval. Calcareous silt constitutes up to 60% of lakebed sediments. From 35 to 42 ft sediment coarsens and is more typical of fluvial or alluvial fan deposition. Material contains 60% gravels and pebbles up to 16 mm with 20% sand. Silt constitutes 20% of interval. Basal clay layer from 42 to 43 ft altered, light orange-brown calcareous clay possibly kaolinitic. Iron oxides present throughout entire sequence. Color is light brown. Strong acid reaction.

43 to 400 ft PALEOZOIC ROCKS - LIMESTONE (CA1) - Thick unit of massive to crystalline limestone. Highly fractured, contains healed breccia zones and hydrothermally altered breccia locally. Secondary mineralization common within fractures, goethite, hematite prevalent, and localized gossan zones. Heavy calcite veining common, locally calcite fills large fractures. Several zones of silicification at 270 to 275 ft, 320 to 340 ft, and at the base from 385 to 400 ft. Probable fault zone at 75 to 95 ft, 135 to 145 ft, clay altered with calcite veins, heavily oxidized, bright reddish orange and bright red colors. Zones also contain healed tectonic breccia with angular fragments of massive limestone in fine-grained orange, strongly oxidized matrix. Other thinner occurrences of breccias present below 145 ft and display less alteration. Several fault zones at 75 ft, 260 ft, 295 ft, 310 ft, and 340 ft, have clay alteration, some sulfide mineralization, cross-cutting calcite veins, and calcite fracture-fill. Goethite altered igneous dike cross cuts in unfactured, massive zone from 275 to 295 ft. Travertine deposits in open fractures/cave at 303 to 307 ft, may have been above a paleo-water level. Below 330 ft to the base of the unit, rock is highly argillized and localized marblized. From 385 to 400 ft rock is highly fractured, argillized, contains copper oxide and black chalcocite. Color is variable, gray, brown, tan, white, with red, orange, and yellow in the altered horizons. Strong acid reaction.

400 to 800 ft (TD) PALEOZOIC ROCK - DOLOMITIC MARBLE (CA1) - Thick unit of crystalline marble locally dolomitic. Marble consist of interlocking crystals to 0.5 mm. Intervals of open fractures with lesser alteration than overlying limestone unit. Iron oxide coats fracture surfaces. Lathy porphyry dike cross-cuts dolomitic-marble horizon at 455 ft, from 455 to 525 ft rock is altered by orange sericite and orange goethitic clay. From 525 to 600 ft rock has open fractures, very little alteration or oxidation, and white dolomitic veins locally. Possible fractured fault zone at 600 ft. From 600 to 655 ft rock contains 5 to 10% goethite alteration, and 2% dolomitic veins within fractures. From 655 to 690 ft fractures are open with very little alteration. Possible fault zone from 690 to 800 ft (TD). Interval is brecciated, red hematitic stains on fractures, white dolomite cross-cutting veins, rare yellow coatings on and in dolomite veins, and possibly siderite. From 758 to 762 ft breccia is healed with calcite bearing yellow orange crystals of what may be siderite, and breccia fragments are rounded. Rock is moderately hard. Color variable, light to medium brown, orange, and white. Moderate to strong acid reaction.

SCHEMATIC WELL DESIGN FOR TEST WELL 206T



NOTES:

This schematic drawing is not to scale.

LS = Land Surface
 TD = Total Depth
 als = above land surface
 bls = below land surface
 ft = feet

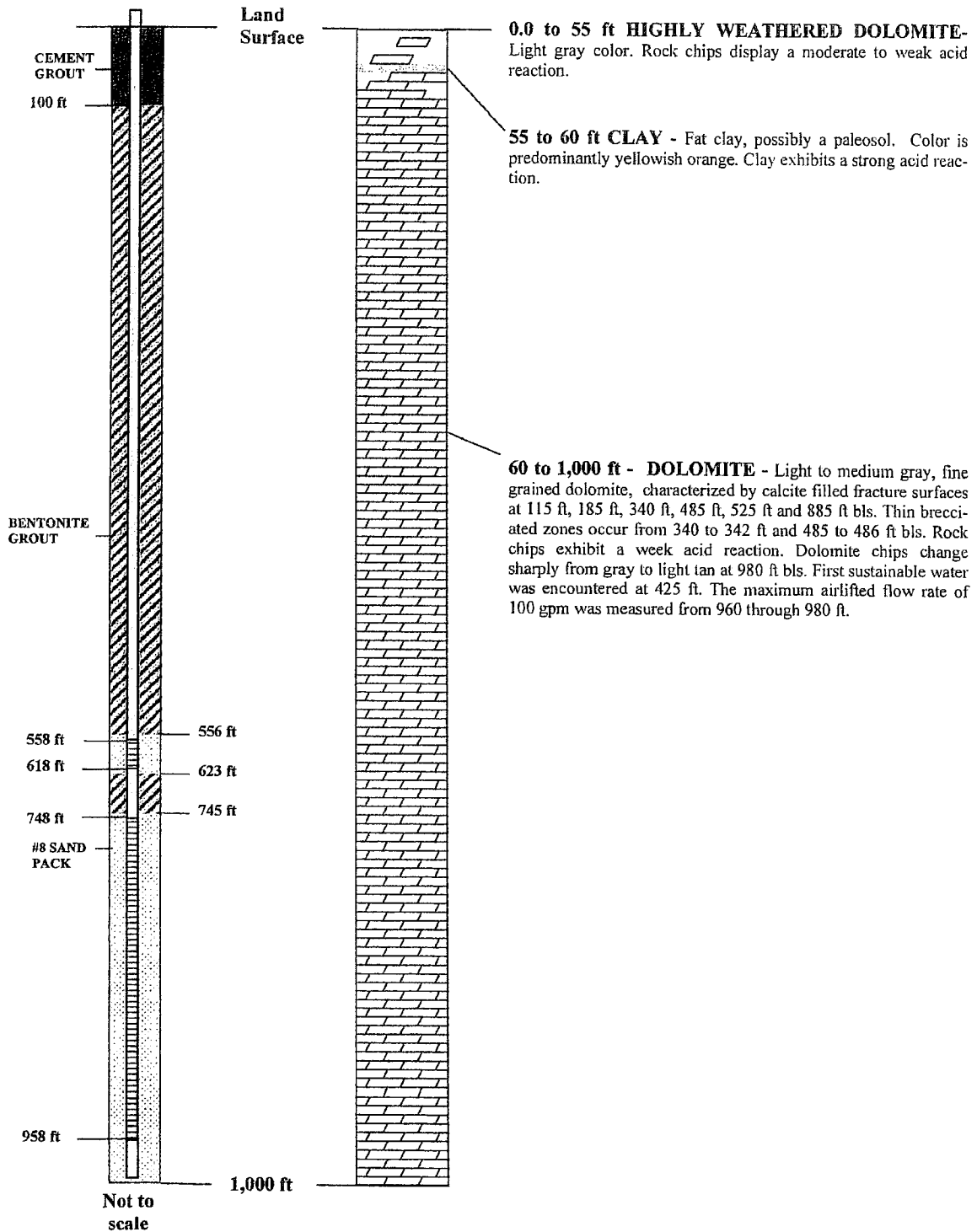
All work to be completed in compliance with Nevada Administrative Code Chapter 534.

All gravel pack and cement seals must be emplaced with a tremie pipe in an upward direction.

001890

JA2056

SUMMARY COMPLETION LOG FOR RWX—213B MW



001891

JA2057