

Depth (feet b.g.l.)

Lithology

As-Built Well Construction (from IDWR Driller's Report)

Depth (feet b.g.l.)

Geophysical Log

(July 2004)

by Stevens and Sons Drilling
in a mud-filled and partially cased
borehole.Single-point log has been
condensed and reprinted
by **Hydro Logic, Inc.** from
scanned pen and ink strip
chart of driller.

single-point resistance

unsaturated zone

water table

uncalibrated,
poor quality
analog signalELEVATION: $\approx 2,869'$ AMSL = GROUND LEVELBUFF YELLOW-BROWN TOP SOIL,
COARSE SAND, & SOFT CLAY30% SOLIDS CETCO
BENTONITE GROUT
($\sim 8.0 \text{ YD}^3$)INTERBEDDED FINE TO COARSE GRAVEL &
LIGHT GRAY MEDIUM TO COARSE SANDSFeast Geosciences lithologic log
was developed from drilled
cuttings. Lithology has been
reinterpreted and readjusted
below 600 feet to better fit with
geophysical logs.Data presented was compiled and plotted by
Hydro Logic, Inc. from available data of others.
HLI was not involved with the drilling project.LIGHT GRAY COARSE TO VERY COARSE
SANDS, FINE TO MEDIUM GRAVELS, WITH
GRAY CLAY LENSESOn site supervision and well design by:
SPF Water Engineering and Feast Geosciences, LLC, Boise, ID.
Direct mud-rotary drilling and well construction by:
Adamson Pump and Drilling, Nampa, IDCOARSE TO VERY COARSE LIGHT GRAY
SANDS INTERBEDDED WITH MEDIUM-
DARK GRAY CLAYS6" x 0.250" WALL
STEEL PIPE
6" x 0.040" SLOT
STAINLESS STEEL
SCREEN
(630' to 640')3/8" GRAVEL
($\sim 1.3 \text{ YD}^3$)

MEDIUM-DARK GRAY CLAY

* SPF report of 10-13-2004 states:
"...driller was instructed to...install 6-inch screen
and casing between 580 and 665 feet.
...Unfortunately the screen assembly became
stuck during installation..."COARSE CLAYEY MEDIUM-
DARK GRAY SAND30% SOLIDS
CETCO BENTONITE
GROUT
($\sim 3.0 \text{ YD}^3$)

MEDIUM-DARK GRAY CLAY

1,005' = T.D.

16-INCH AIR-ROTARY
DRILLED HOLE8" x 0.250" WALL
STEEL CASING12-INCH DIRECT MUD-
ROTARY DRILLED HOLENPWL
482.1'
8-19-04STANDARD 6" to 8"
NEOPRENE PACKER

555'

580'

600' = DRIVE-SHOE

630'

640'

665'

770'

800'

850'

900'

950'

1,000'

1,005' = T.D.

Drafted June '08
by Loren Pearson,
Hydro Logic, Inc.

Spring Valley Ranch - Test Well #10

T.5.N R.1E. Section 8, SW¼, SW¼

Latitude N43° 46' 49.1" Longitude W116° 22' 23.2"

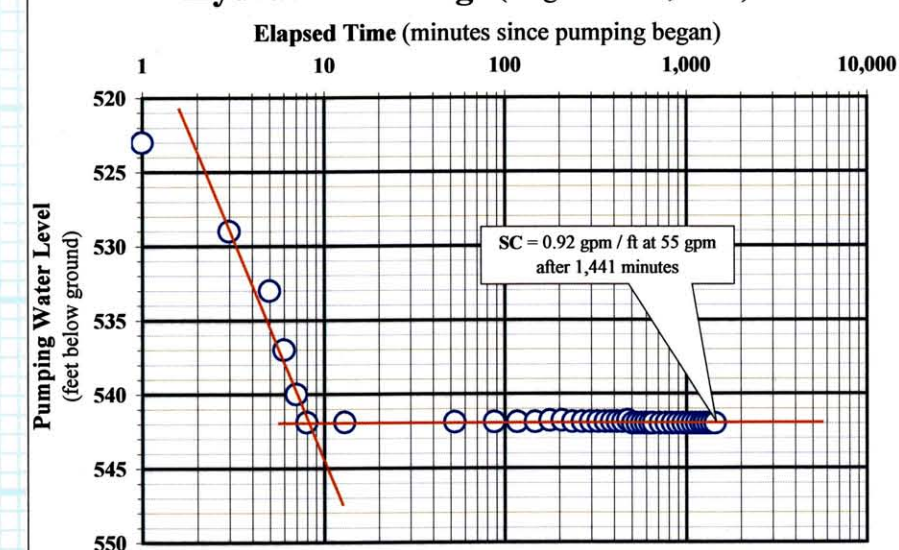
Completed July 2004

Ground Water Chemistry

Lab Analyses	SPF Water Engineering Results (in mg/L unless noted)
	SCREENED (630 - 640 feet bgl)
Ammonia as N	<0.04
Antimony	<0.005
Arsenic	0.012
Barium	<0.05
Beryllium	<0.0005
Bicarbonate	53.5
Cadmium	<0.0005
Calcium as CaCO ₃	17
Chloride	2
Chromium	0.002
Fluoride	0.24
Hardness	51.8
Iron (total)	0.36
Magnesium	3.20
Manganese	<0.05
Mercury	<0.0002
Nickel	<0.02
Nitrate as N	5.2
Nitrite as N	<0.01
Potassium	2.4
Selenium	<0.005
Sodium	12.3
Sulfate	<1
Sulfide	<0.05
Thallium	<0.002
Total Dissolved Solids	70
Field Analyses	
Field Conductivity (μS)	160
Field pH (S.U.)	7.64
Field Temperature ($^{\circ}\text{F}$)	75.9

SPF samples collected on August 19, 2004 by Feast Geosciences.
Analyses by Analytical Laboratories, Boise, ID

Hydraulic Testing - (August 19-20, 2004)



Non-Pumping Water Level = 482.1 feet below ground (11:30 hrs on 08/19/04)

Test conducted by Feast Geosciences and Adamson Pump and Drilling Co.

According to driller well development consisted of air-lift pumping at 50 gallons/minute for at least two hours.

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