

TRACKING# 70943

STATE OF TEXAS WELL REPORT

Date Entered: 11/18/2005

OWNER: Headwaters GWCD

OWNER 125 Lrhmsnn Ft., Duiyr #102

ADDRESS: Krttblr, TX 78028

ADDRESS OF WELL'S LOCATION:

Kerr County WLMA TP & W  
Kerrville, TX 78028

COUNTY: Kerr

LATITUDE: 300126

LONGITUDE: 992939

Brand/Model of GPS:

101

Owner's Well Number: 1116

ELEVATION: 2067

Grid Number: 56 - 61 - 4

TYPE OF WORK:

PROPOSED USE:  Monitor Well  Env. Soil Boring  Domestic  Test Well

New Well  Replacement Well

Industrial  Irrigation  Injection  Geothermal Heat Loop

Deepening  Reconditioning

Public Supply  De-watering  Rig Supply  Stock or Livestock

If Public Supply well, were plans submitted to the TNRCC?  Yes  No

WELL LOG:

DIAMETER OF HOLE

DRILLING METHOD:

Date Drilling

Dia. (in) From (ft.) To (ft.)

Driven  Air Hammer  Hollow Stem Auger  Bored

Started 10/27/2005

8 Surface 890

Air Rotary  Cable Tool  Reverse Circulation

Completed 11/14/2005

Mud Rotary  Jetted  Other

ANNULAR SEAL DATA

From 0 ft. to 610 ft. #Sacks + Material 6-cem 16 grout

From ft. to ft. #Sacks + Material

From ft. to ft. #Sacks + Material

Method Used Tremmie pipe

Cemented By Armadigger, Inc.

Distance to Septic System N/A

Distance to Property Line: 150+

Method of Verification Measured

Approved by Variance No.

BOREHOLE COMPLETION:

Open Hole  Underreamed  Other

Straight Wall  Gravel Packed

Gravel Packed Interval from 610 ft. to 880 ft.

Size

SURFACE COMPLETION:

Surface Slab Installed  Pitless Adapter Used

Surface Sleeve Installed  Alternative Procedure Used

WATER LEVEL:

Static Level 414 ft. below land surface

Artesian Flow gpm.

Date 11/2/2005

PLUGGING INFO:

Well Plugged within 48 hours

Casing left in well: Cement/Bentonite left in well:

From (ft.) To (ft.) From (ft.) To (ft.) Cem/Bent Sacks Used:

TYPE OF PUMP:

Turbine  Jet  Submersible  Cylinder

Other

Depth to pump bowls, cylinder, jet, etc.

PACKERS:

Type Depth

N/A

WELL TESTS:

Type of test:  Pump  Bailer  Jetted  Estimated

Yield: gpm with ft. drawdown after hrs.

WATER QUALITY:

Did Driller knowingly penetrate any strata which contained undesirable constituents?  Yes  No

Type of water:

Depth of Strata:

Chemical Analysis made?  Yes  No

COMPANY NAME: Armadigger, Inc.

WELL DRILLER'S LICENSE NO. 4785

ADDRESS P. O. Box 1329

Bandera TX 78003

Name as Signature Michael Tumlinson

Registered Driller Apprentice

Driller Comments

Pump to be set at later date.

56-61-101

WELL REPORT CONFIDENTIALITY NOTICE

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner. Please include the report's Tracking number on your written request.

Texas Department of Licensing Regulation  
Water Well Driller/Pump Installer Section  
P.O. Box 12157 Austin, TX 78711  
Toll free (800)803-9202 (512)463-7880 FAX (512)463-8616  
Email address: water.well@license.state.tx.us Web address: www.license.state.tx.us

DESCRIPTION AND COLOR OF FORMATION MATERIAL		CASING, BLANK PIPE, AND WELL SCREEN DATA				
From (ft.)	To (ft.) Description	Dia.	New/Used	Type	Setting From/To	Gage
0	30	Limestone	-	cream		
30	37	Marl	-	cream		
37	60	Limetone	-	lt tan		
60	145	Dolomite	-	lt tan		
145	150	Limestone	-	lt tan - cream		
150	180	Dolomite	-	lt tan		
180	210	Limestone	-	lt tan - lt gray		
210	220	Dolomite	-	lt tan		
220	397	Marl and Limestone	-	lt gray		
397	417	Sabkha	-	lt gray - lt orange		
417	494	Marl & Limestone	-	lt gray		
494	620	Sandy Clay	-	lt gray		
620	632	Sand and Gravel	-	lt orange-white		
632	645	Paleosol	-	lt orange - lt red		
645	674	Sand & Gravel	-	lt orange - white		
674	690	Paleosol	-	lt orange - lt red		
690	830	Sand & Gravel	-	lt orange - white		
830	840	Paleosol	-	lt orange - lt red		
840	890	Clay	-	lt gray		

Dia.	New/Used	Type	Setting From/To	Gage
4 1/2"	N	SDR 17 PVC	0 - 870	
		Screen casing	610 - 870'	.32

566101



City, State/Province  
 Address  
 Contact Info  
 Company Name

**Pumping Test Analysis Report**

Project: Headwaters # 5

Number: Headwaters MW-5

Client:

Location: Kerr Co., Texas

Pumping Test: Pumping Test 5

Pumping well: Well # 5

Test conducted by: WFW

Test date: 3/10/2006

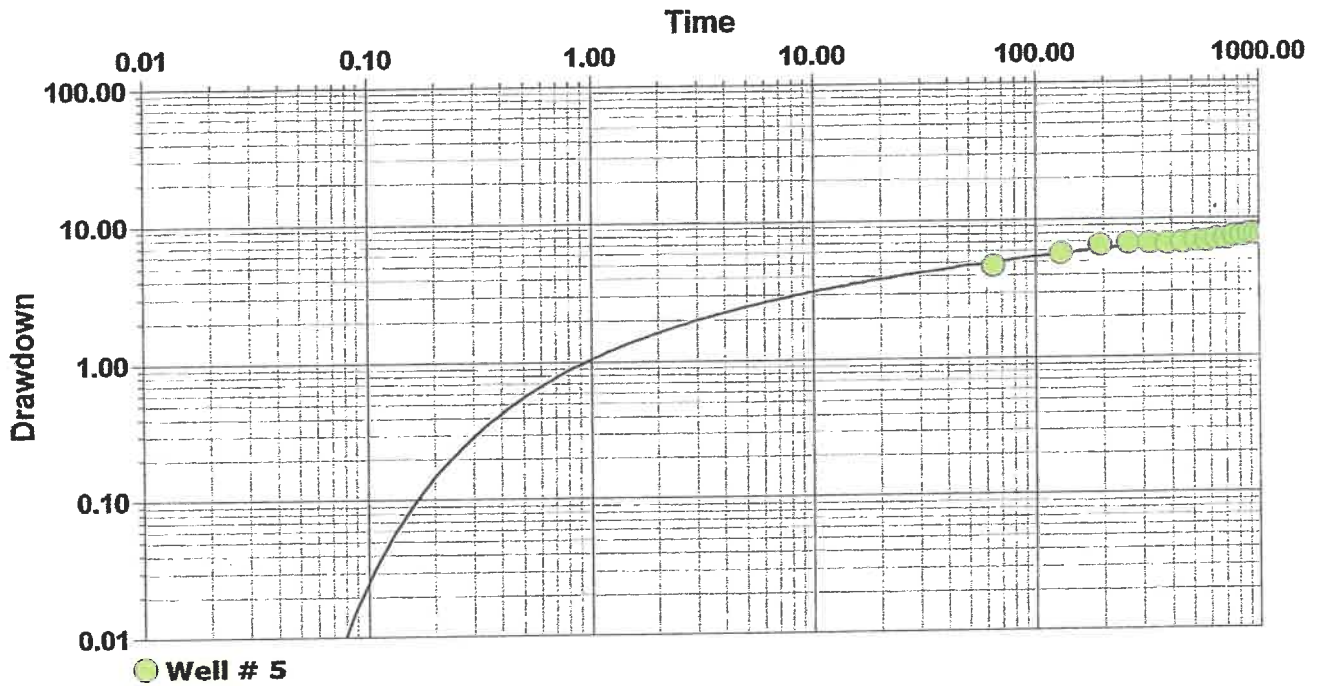
Analysis performed by: WFW

Pump Test #5

Date: 3/10/2006

Aquifer Thickness: 220.00 ft

Discharge rate: 19.71 [U.S. gal/min]



Calculation after Theis

Observation well	Transmissivity [ft <sup>2</sup> /d]	K [ft/d]	Storage coefficient	Radial distance to PW [ft]
Well # 5	$4.56 \times 10^2$	$2.07 \times 10^0$	$4.93 \times 10^{-4}$	10.0

A 10 HP pump was set at 651' with a 2" drop pipe and tested on 03-10-2006 for 250 minutes.

N 30 06' 24.38"  
 W 99 29' 37.27"

Elevation = 2067'

Kerr County Wildlife Management Area  
 West Kerr County

Hensel Sand Formation



City, State/Province  
Address  
Contact Info  
Company Name

Site Plan

Project: Headwaters # 5

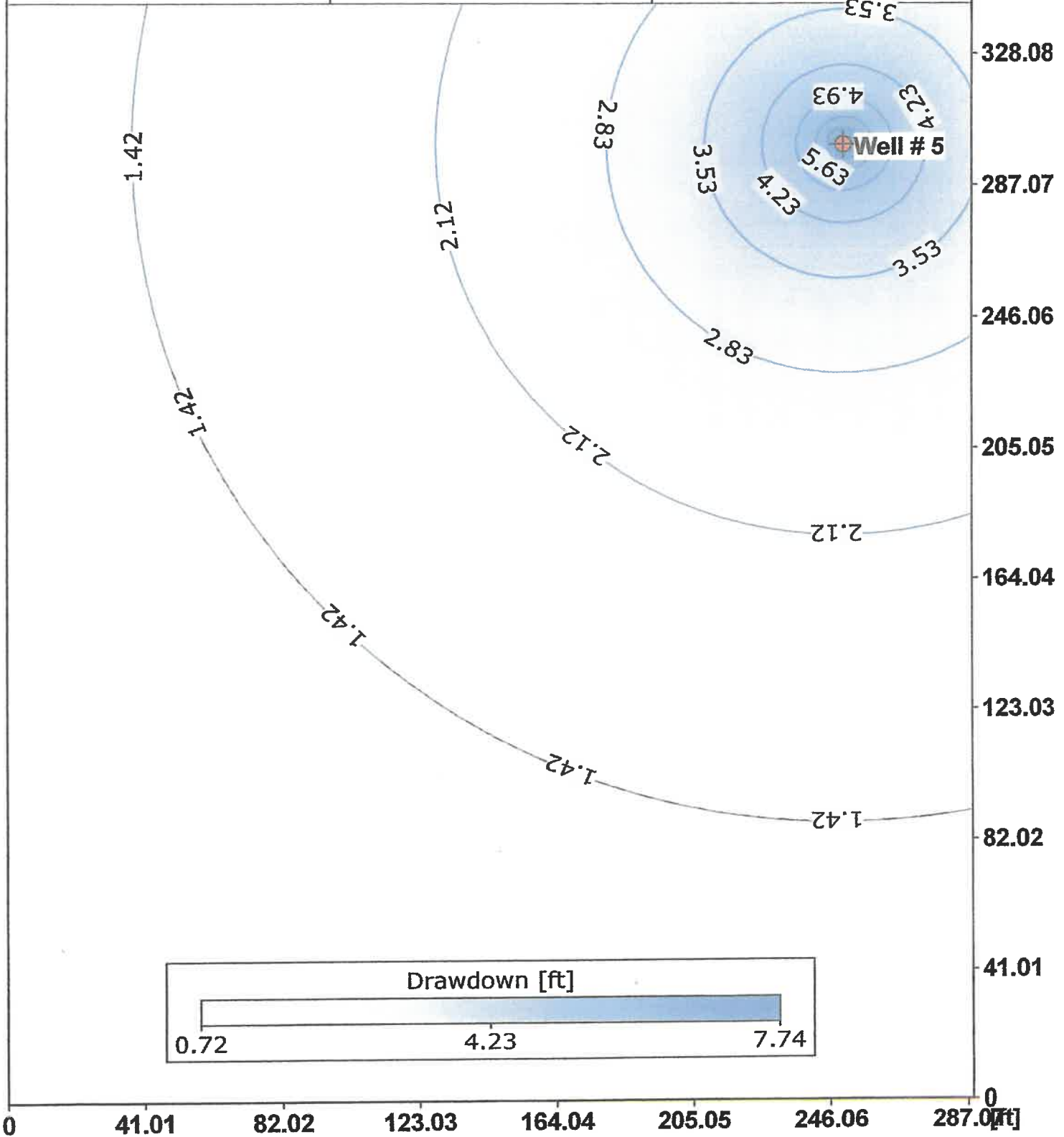
Number: Headwaters MW-5

Client:

Location: Kerr Co., Texas

Scale 1:500

Map Origin [ft] X: 0 Y: 0





**City, State/Province**  
**Address**  
**Contact Info**  
**Company Name**

**Pumping Test - Water Level Data**

Project: Headwaters # 5

Number: Headwaters MW-5

Client:

Location: Kerr Co., Texas

Pumping Test: Pumping Test 5

Pumping well: Well # 5

Test conducted by: WFW

Test date: 3/10/2006

Discharge rate: 19.71 [U.S. gal/min]

Observation well: Well # 5

Static water level [ft]: 0.00

Radial distance to PW [ft]: -

	Time [min]	Water Level [ft]	Drawdown [ft]
1	0	0.00	0.00
2	10	3.11	3.11
3	20	3.80	3.80
4	30	4.35	4.35
5	40	4.42	4.42
6	50	4.42	4.42
7	60	4.41	4.41
8	70	4.42	4.42
9	80	4.55	4.55
10	90	4.55	4.55
11	100	4.75	4.75
12	110	4.75	4.75
13	120	4.95	4.95
14	130	4.95	4.95
15	140	5.15	5.15
16	150	5.09	5.09
17	160	5.05	5.05
18	170	5.25	5.25
19	180	5.26	5.26
20	190	5.25	5.25
21	200	5.32	5.32
22	210	5.32	5.32
23	220	5.25	5.25
24	230	5.35	5.35
25	240	5.46	5.46
26	250	5.50	5.50