Replacement of Production Well Wilbur

Well Completion Data

Table of Contents

WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Edward A. Jackson **CERTIFICATION #** 2426

WELL CONTRACTOR COMPANY NAME A.C. Schultes of Carolina, Inc. **PHONE #** (910) 285-7465

STATE WELL CONSTRUCTION PERMIT # (if applicable) WS0700769 **ASSOCIATED WQ PERMIT #** (if applicable)

1 WELL USE (Check Applicable Box): Residential [ ] Municipal/Public [X] Industrial [ ] Agricultural [ ]
Monitoring [ ] Recovery [ ] Heat Pump Water Injection [ ] Other [ ] If Other, List Use

2 WELL LOCATION:
Nearest Town: Kill Devil Hills County Dare
1634 N. Croatan Hwy
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
[ ] Ridge [ ] Slope [ ] Valley [X] Flat
(check appropriate box)

Latitude/longitude of well location
(degrees/minutes/seconds)

Latitude/longitude source: [X] GPS [ ] Topographic map
(check box)

3 OWNER: Dare County Water Department
Address 359 Waterplant Drive
(Street or Route No.)
Manteo, NC 27954
City or Town State Zip Code
-
Area code - Phone number

DEPTH From	To	DRILLING LOG Formation Description
SEE ATTACHED		

4 DATE DRILLED June 30, 2004

5 TOTAL DEPTH: 435

6 DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]

7 STATIC WATER LEVEL Below Top of Casing: 25.5 FT.
(Use "+" if Above Top of Casing)

8 TOP OF CASING IS +3 FT. Above Land Surface *
***Top of casing terminate at/or below land surface requires a variance in accordance with 15A NCAC 2C.0118.**

9 YIELD (gpm): 600 METHOD OF TEST Pump

10 WATER ZONES (depth) 114-160; 207-250; 302-410

11 DISINFECTION: Type Chlorine Amount 20 # HTH

12 CASING:

	Depth From	To	Ft	Diameter	Wall Thickness or Weight/Ft.	Material
	0	100		20"	0.250	Steel
	+3	310		12"	0.750	SDR 17 PVC
	430	435		8"	0.375	316 S.S.

13 GROUT:

	Depth From	To	Ft	Material	Method
	0	100		Cement	Tremmie
	0	280		Cement	Tremmie

14 SCREEN:

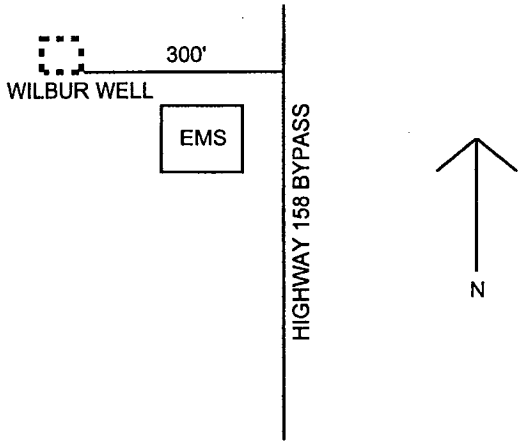
	Depth From	To	Ft	Diameter		Slot Size		Material
	310	430		8	in	0.025	in	316 S.S.
					in		in	
					in		in	
					in		in	

15 SAND/GRAVEL PACK:

	Depth From	To	Ft	Size	Material
	280	435		#1A	Southern Products

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16 REMARKS:

I HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Edward A. Jackson — July 27, 2004

SIGNATURE OF PERSON CONSTRUCTING THE WELL — DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636
Phone No. (919) 733-3221, within 30 days.

GW-1 REV. 07/2001

A.C.Schultes of Carolina
INFLUENT TO EFFLUENT

DOUBLE CASED WELL LOG - SINGLE SCREEN

Rotary Table: +3

Ground: 0

Borehole Diameter: 26"

Outer Casing Diameter: 20"

Outer Casing Material: Steel

Bottom of Outer Casing: 100'

Inner Casing Diameter: 12"

Inner Casing Material: PVC

Top of Gravel: 280'

Underream Diameter: 19"

Top of Screen: 310'

Screen Diameter: 8"

Screen Material: Stainless Steel

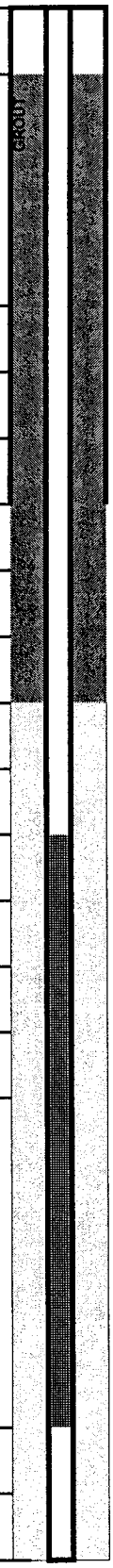
Screen Slot: 0.025

Gravel Size: 1A

Bottom of Screen: 430'

Cellar Material: 316 S.S.

Bottom of Cellar: 435'



DRILLING DATA	
Owner:	Dare County
Job Name:	North Reverse Osmosis
Job No:	C-0087
Well Number:	Wilbur Well
Location:	Hwy. 158 Kill Devil Hills
Datum:	Ground
Static Level (Ft):	25.5
Test Pumped (Hrs):	48
Flow Rate (GPM):	600
Pumping Level (Ft):	45.5
Draw Down (Ft):	20
Spec. Capacity (GPF):	30
Screen Mfg.:	Johnson Screen
Grout Material:	Neat Cement
Grout Quantity (Bags):	63
Drilling Rig:	D-4
Driller:	Allen Jackson
Date Well Completed:	June-04

GEOLOGIC DATA	
Depth From Ground	**Well Log**
0-30	Sand - White
30-50	Sand w/clay white
50-76	Medium Gray Sand
76-83	Gray Clay & Sand
83-96	Medium Gray Sand
96-114	Gray Clay
114-160	Medium Gray Sand
160-207	Gray Clay
207-250	Medium Gray Sand
250-302	Gray Clay
302-410	Sand fine gray
410-425	Sand fine white
425-430	Sand w/ traces of clay

Edward A Jackson

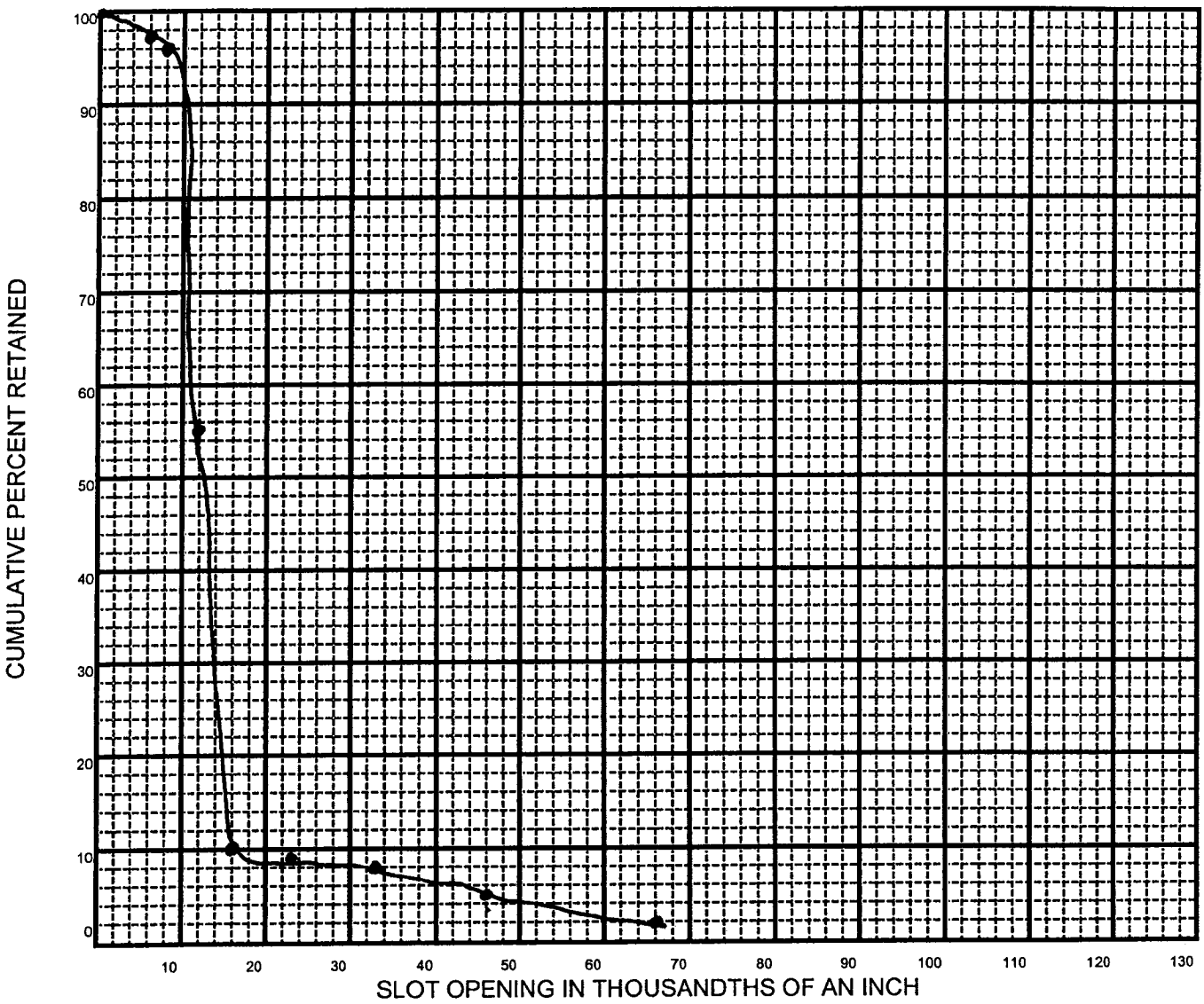
SAND ANALYSIS
A.C. SCHULTES, INC.

Town **Kill Devil Hills** State **North Carolina** Date: **5/20/04**

From Well of **Wilbur Well - Dare County**

Remarks **370**

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	2		
0.046	5		
0.039			
0.033	8		
0.023	9		
0.016	10		
0.012	55		
0.008	96		
0.006	97		
PAN	100		
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

316 S.S.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

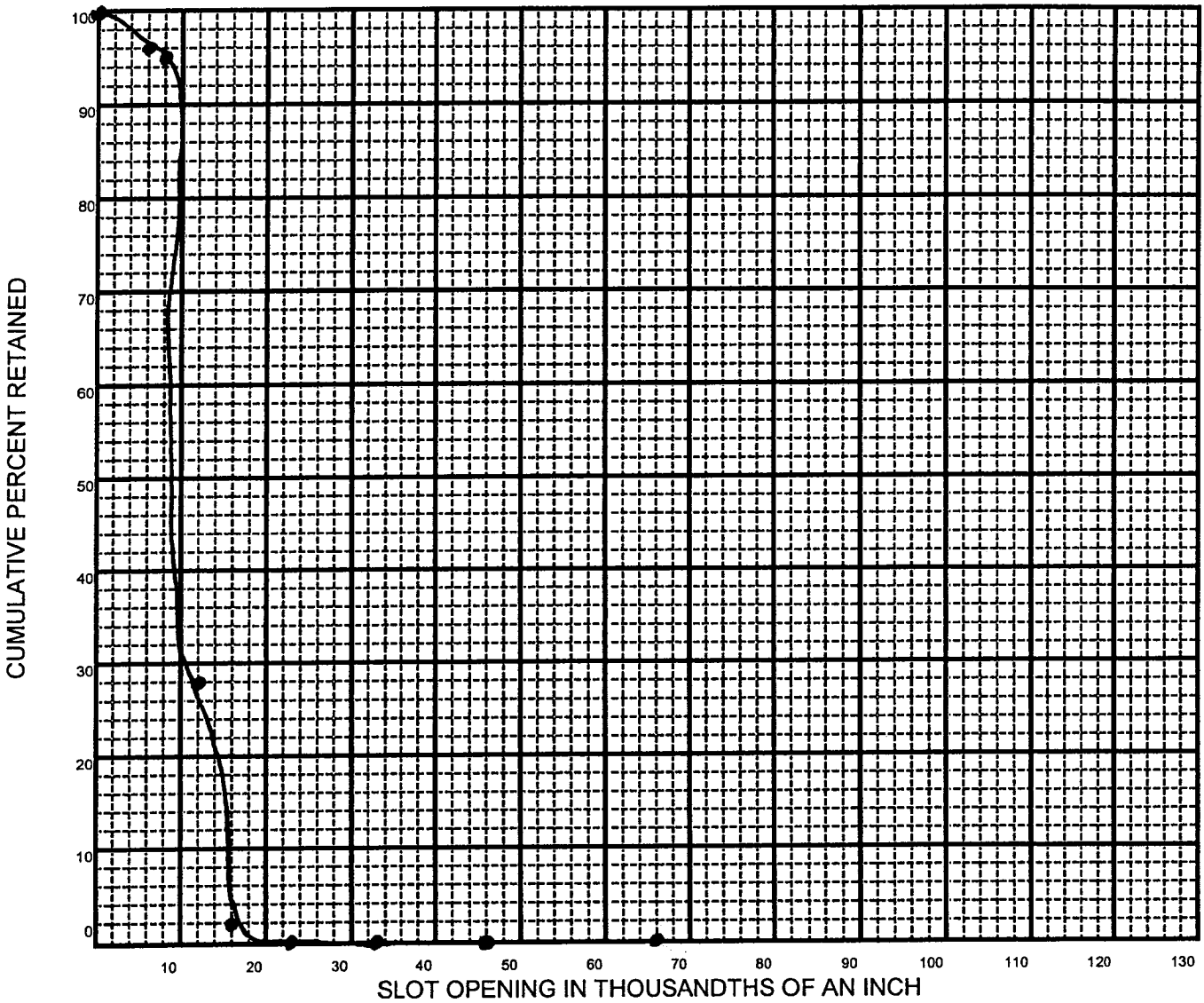
SAND ANALYSIS
A.C. SCHULTES, INC.

Town Kill Devil Hills State North Carolina Date: 5/20/04

From Well of Wilbur Well - Dare County

Remarks 380

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	0		
0.046	0		
0.039			
0.033	0		
0.023	0		
0.016	2		
0.012	28		
0.008	95		
0.006	96		
PAN	100		
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

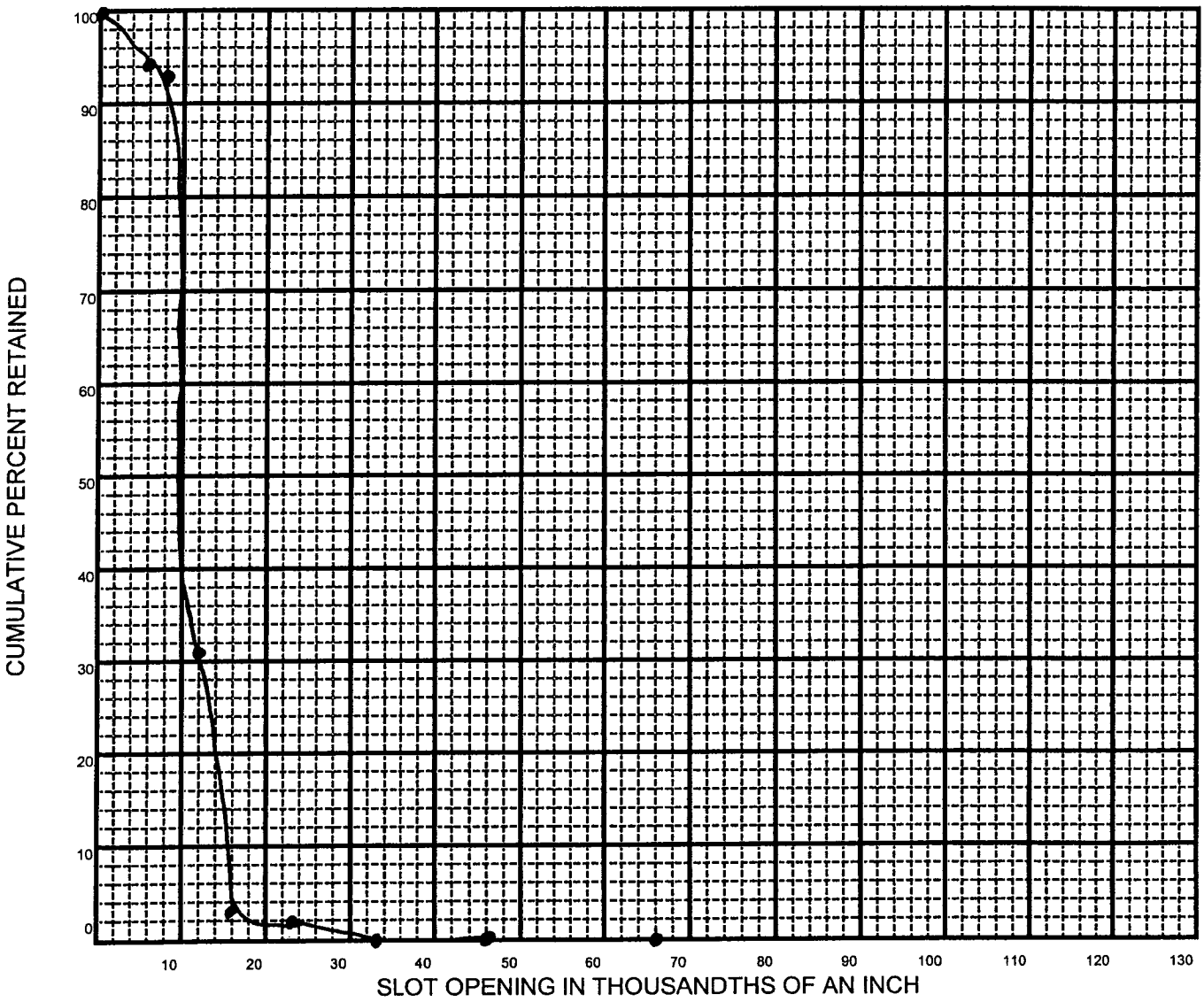
SAND ANALYSIS
A.C. SCHULTES, INC.

Town Kill Devil Hills State North Carolina Date: 5/20/04

From Well of Wilbur Well - Dare County

Remarks 390

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	0		
0.046	0		
0.039			
0.033	0		
0.023	2		
0.016	3		
0.012	31		
0.008	93		
0.006	94		
PAN	100		
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

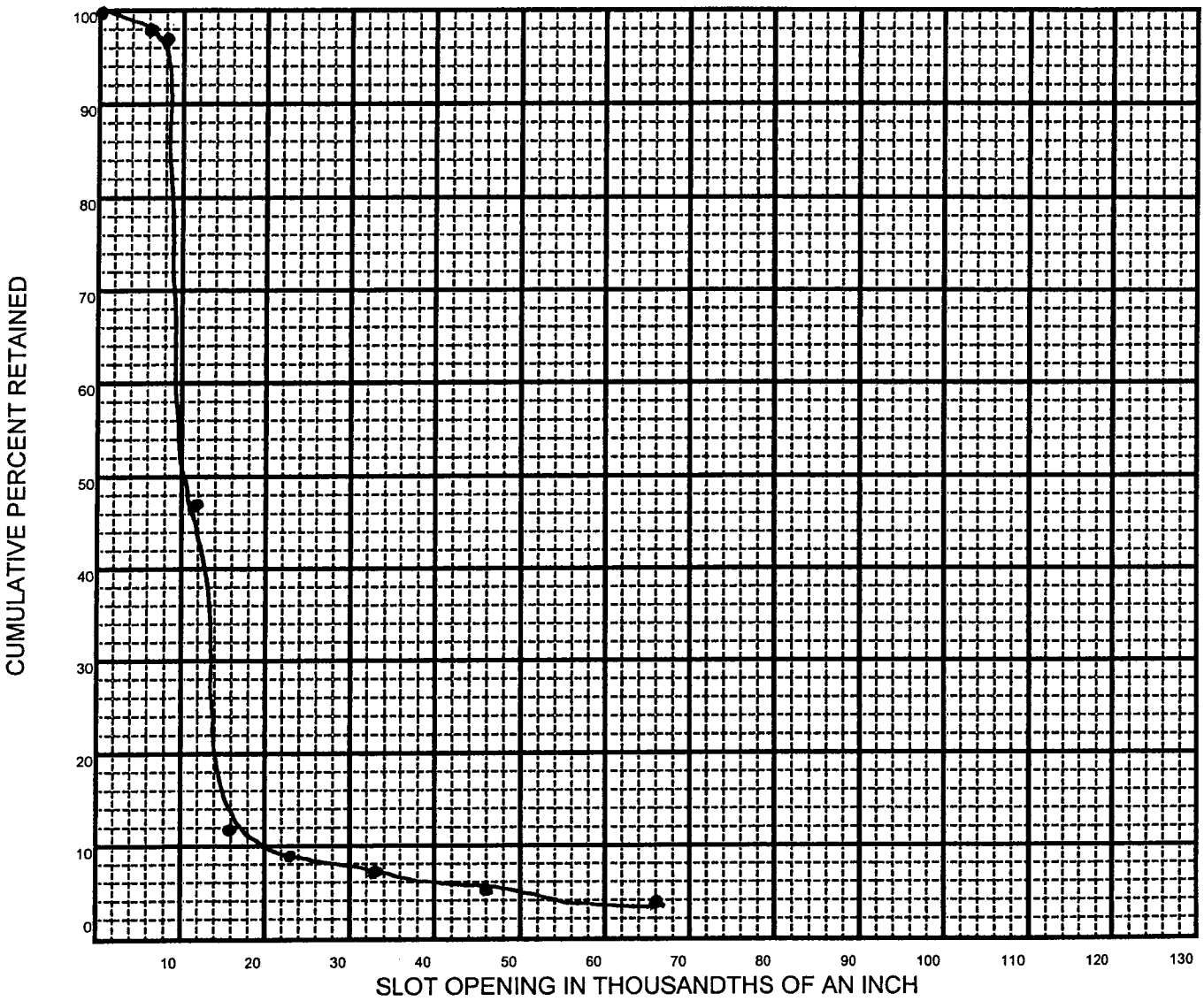
SAND ANALYSIS
A.C. SCHULTES, INC.

Town Kill Devil Hills State North Carolina Date: 5/20/04

From Well of Wilbur Well - Dare County

Remarks 400

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	4		
0.046	5		
0.039			
0.033	7		
0.023	9		
0.016	12		
0.012	47		
0.008	97		
0.006	98		
PAN	100		
SCREEN SLOT			

NOTES:

SLOT OPENING RECOMMENDED:

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

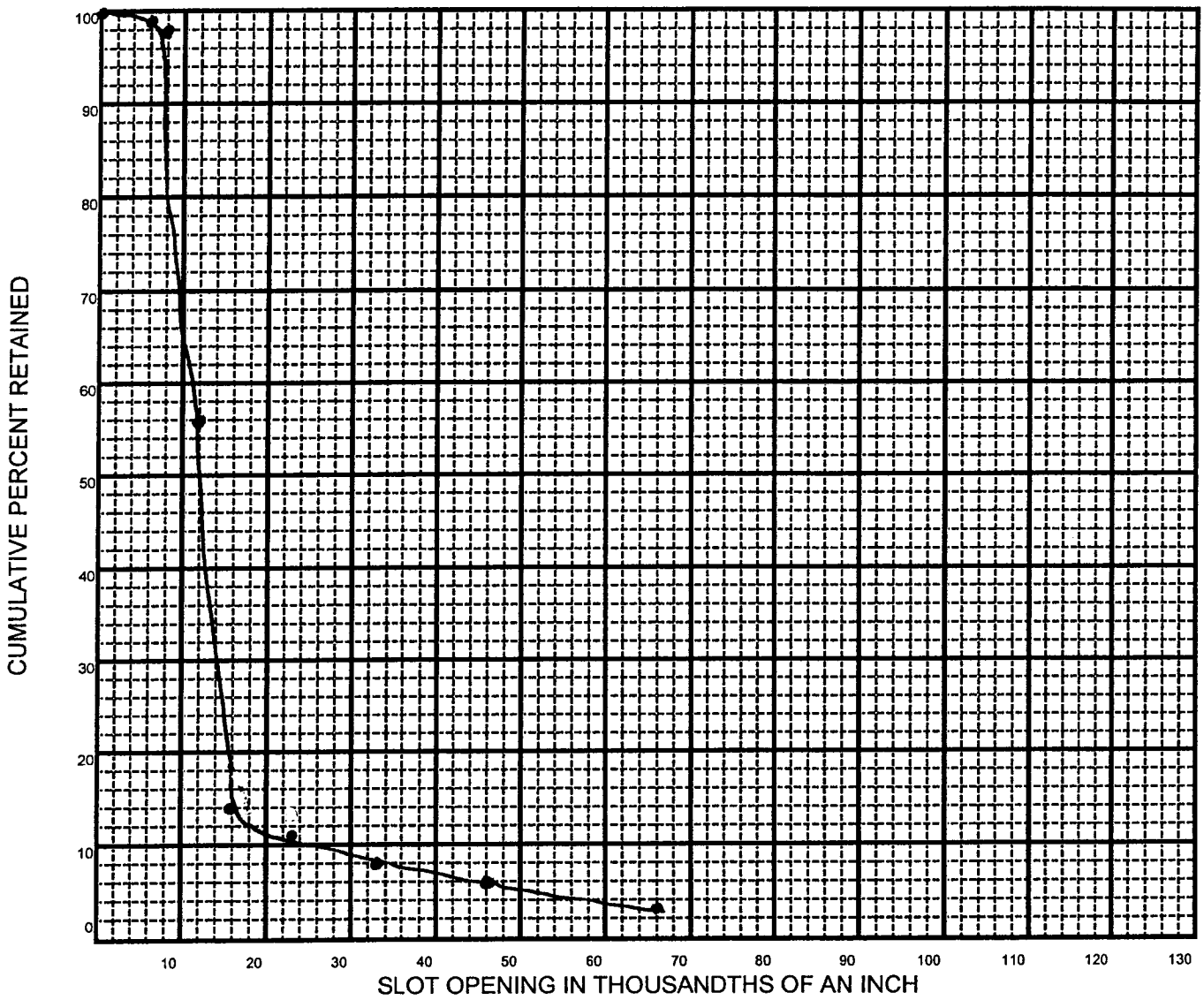
SAND ANALYSIS
A.C. SCHULTES, INC.

Town **Kill Devil Hills** State **North Carolina** Date: **5/20/04**

From Well of **Wilbur Well - Dare County**

Remarks **410**

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	3		
0.046	6		
0.039			
0.033	8		
0.023	11		
0.016	14		
0.012	56		
0.008	98		
0.006	99		
PAN	100		
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

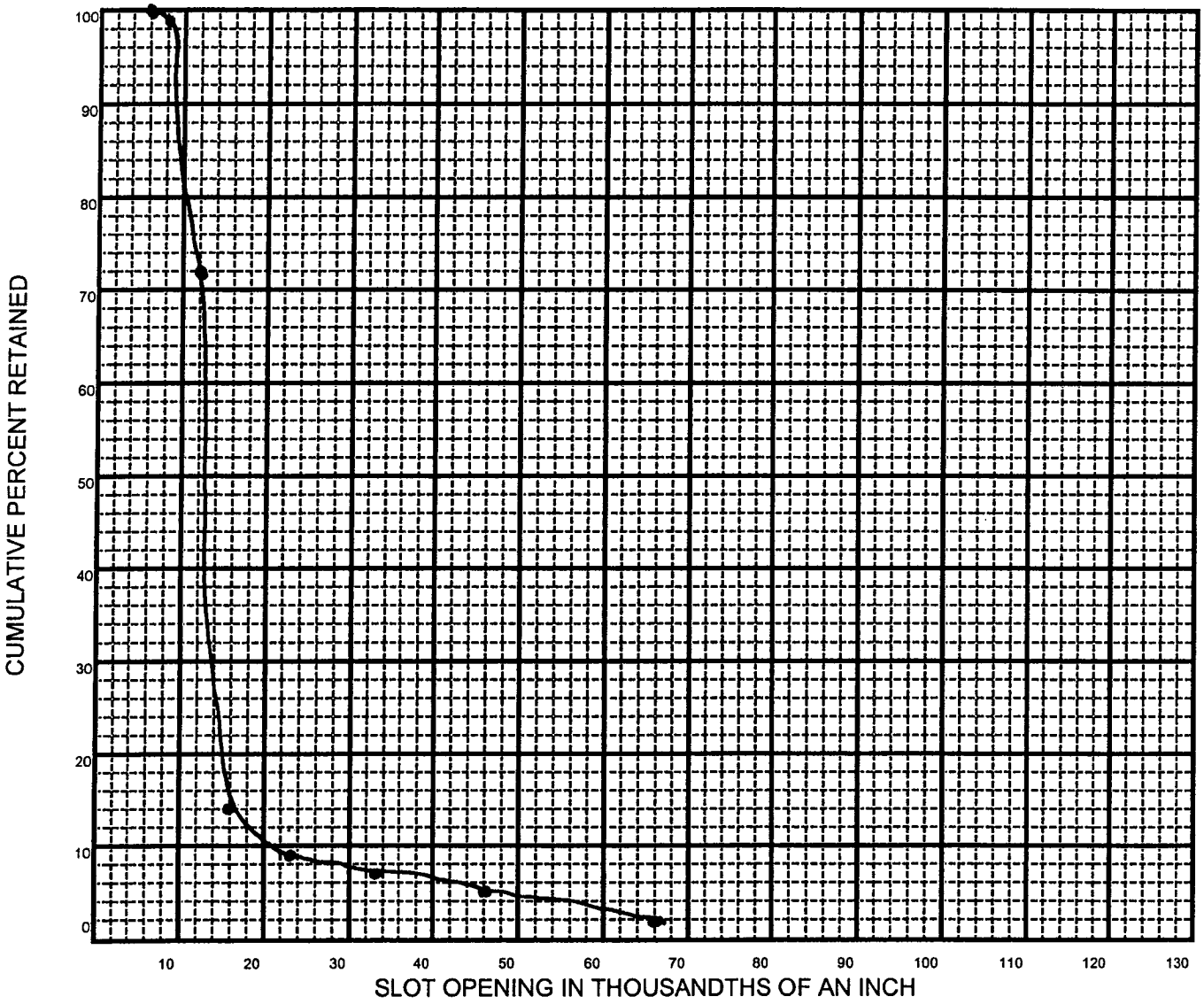
SAND ANALYSIS
A.C. SCHULTES, INC.

Town **Kill Devil Hills** State **North Carolina** Date: **5/20/04**

From Well of **Wilbur Well - Dare County**

Remarks **420**

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	2		
0.046	5		
0.039			
0.033	7		
0.023	9		
0.016	14		
0.012	72		
0.008	99		
0.006	100		
PAN			
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

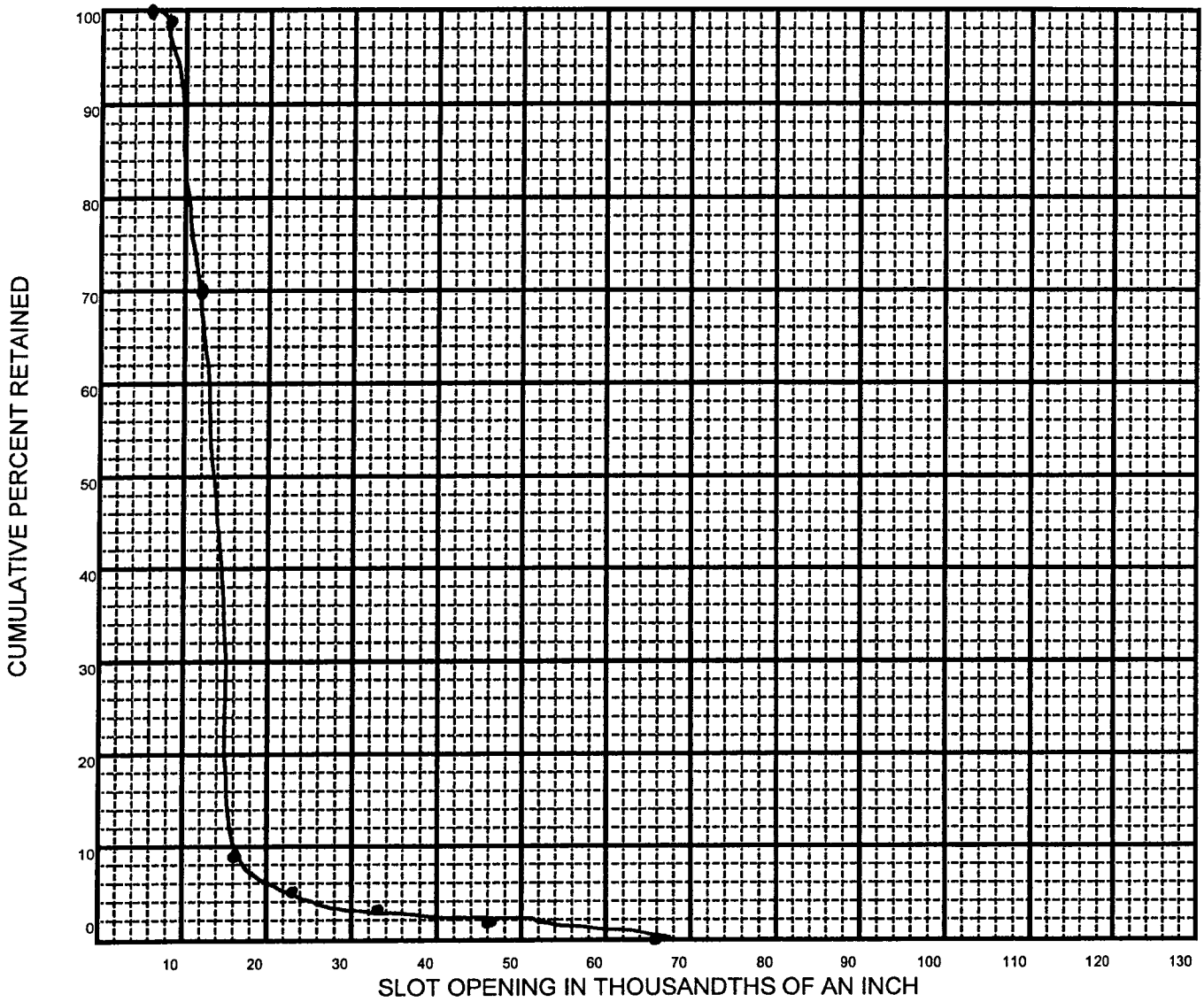
SAND ANALYSIS
A.C. SCHULTES, INC.

Town **Kill Devil Hills** State **North Carolina** Date: **5/20/04**

From Well of **Wilbur Well - Dare County**

Remarks **430**

Ditch Sample



SIEVE OPENING	CUMULATIVE PERCENT RETAINED		
0.066	0		
0.046	2		
0.039			
0.033	3		
0.023	5		
0.016	9		
0.012	70		
0.008	99		
0.006	100		
PAN			
SCREEN SLOT			

NOTES: _____

SLOT OPENING RECOMMENDED: _____

RECOMMENDED SCREEN: DIA: _____ IN. LENGTH _____ FT.

BY: Randy Hudson

SO MANY CONSIDERATION ENTER INTO THE MAKING OF A GOOD WELL THAT WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

A.C. SCHULTES OF CAROLINA, INC.

INFLUENT TO EFFLUENT

JOB NAME : Dare Co.

JOB NO. : C-0087

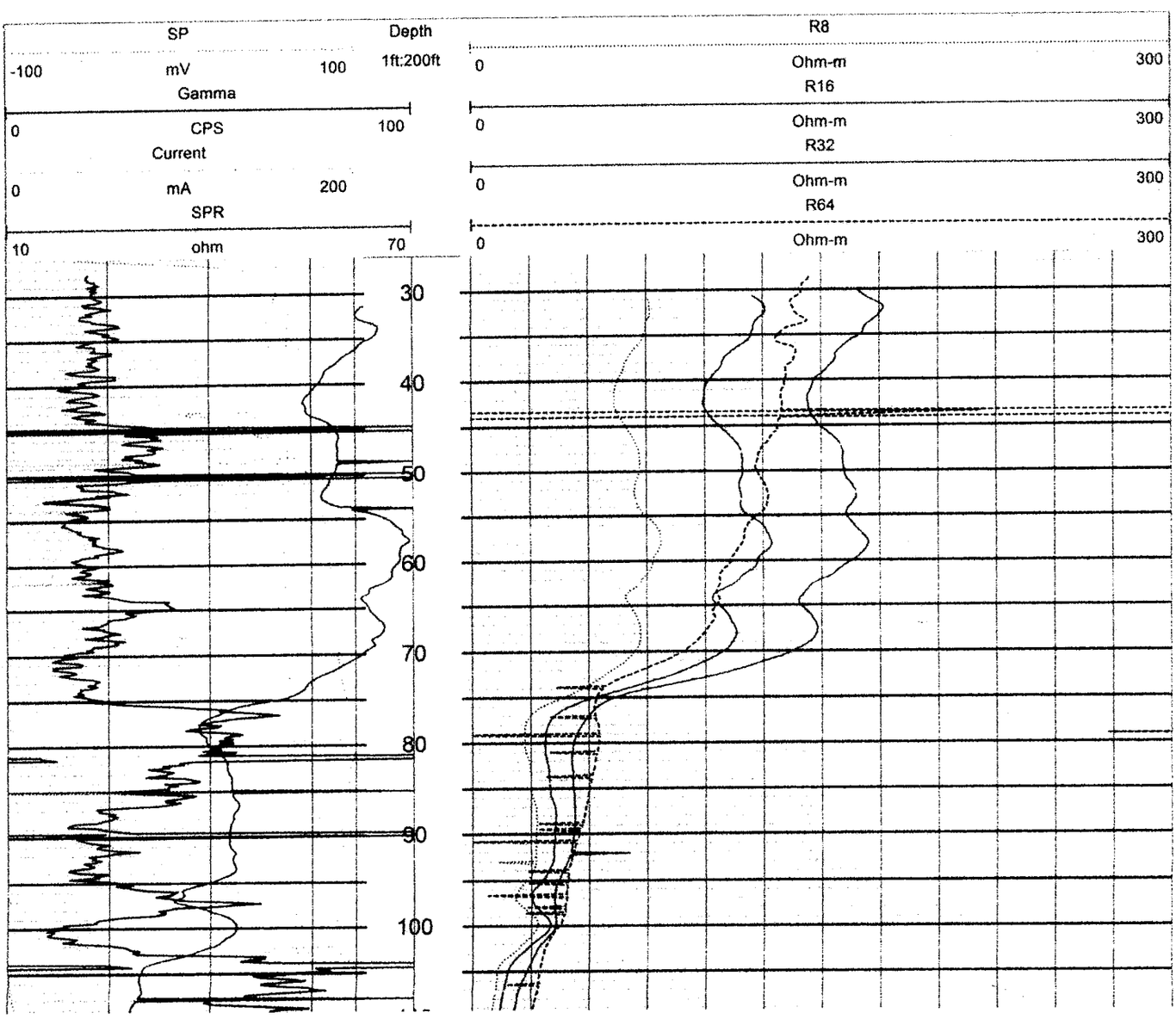
LOCATION : Wilbur

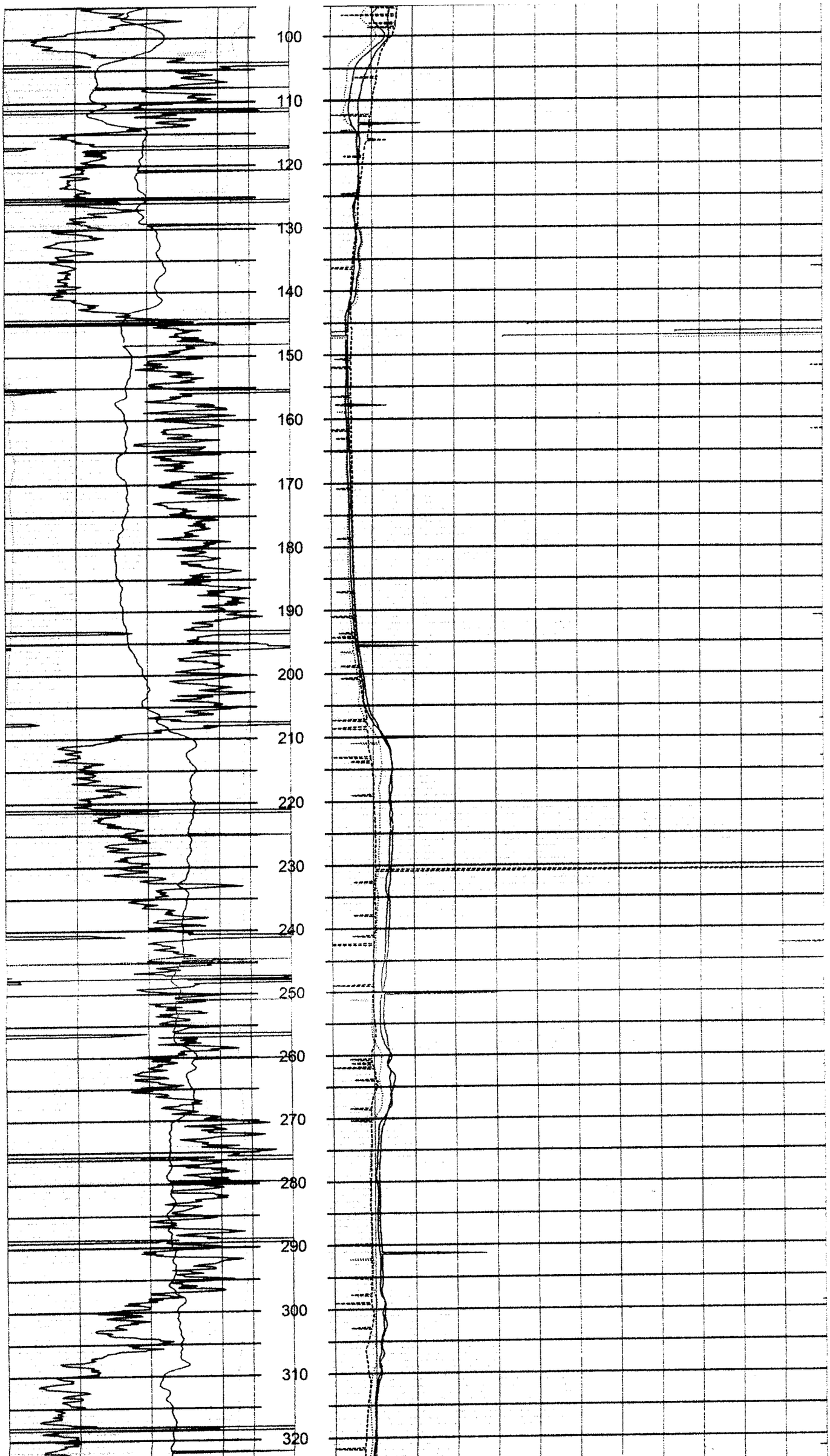
WELL NO. :

BIT SIZE : 8-3/4

DATE : 5-19-04

LOGGED BY : Randy Hudson

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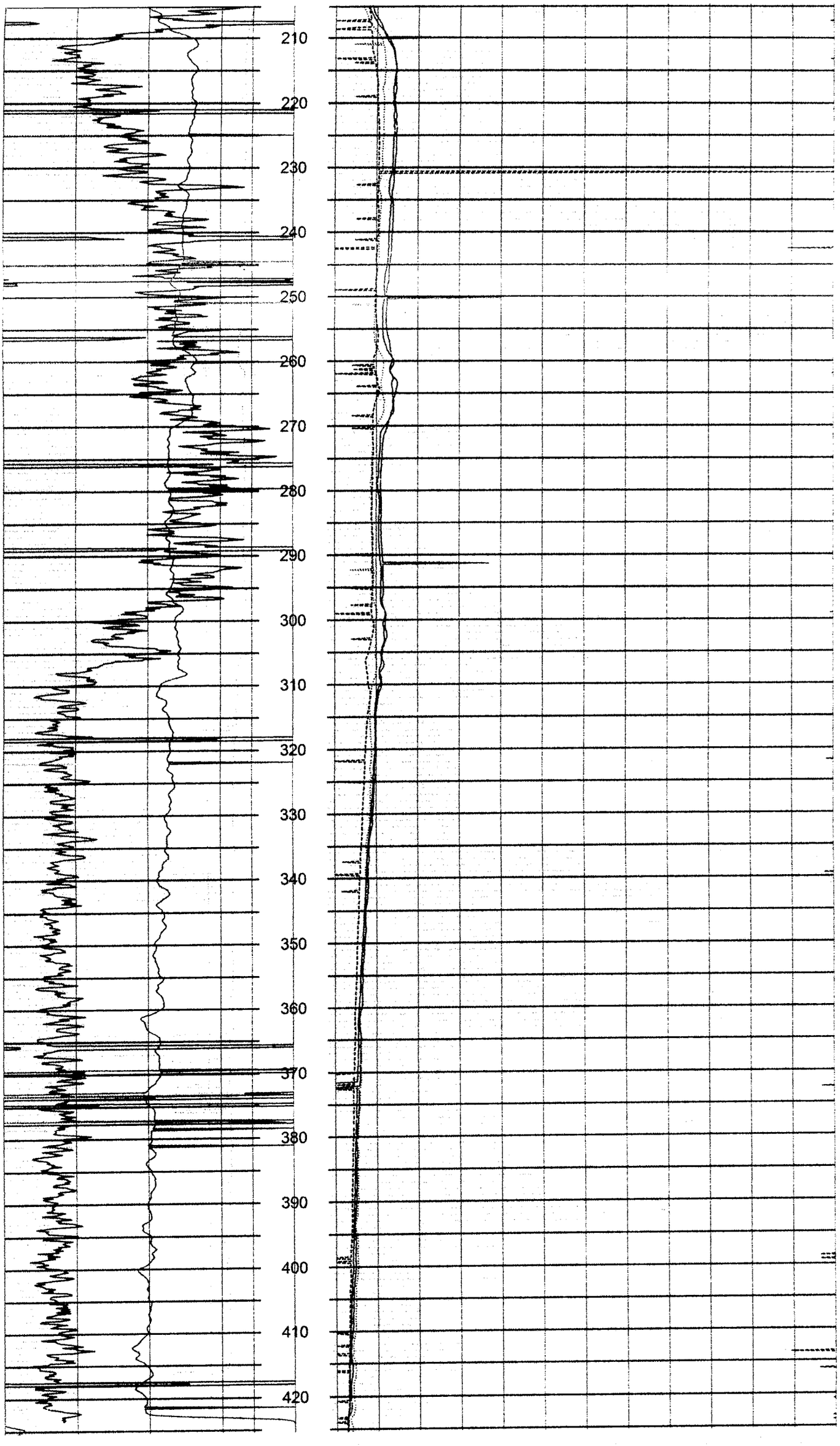
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330
340
350
360
370
380
390
400
410
420

Well Yield and Drawdown Report

Production Well Wilbur

Submitted By: _____

Mathew F. Colone, P.G.
North Carolina Professional Geologist No. 1851

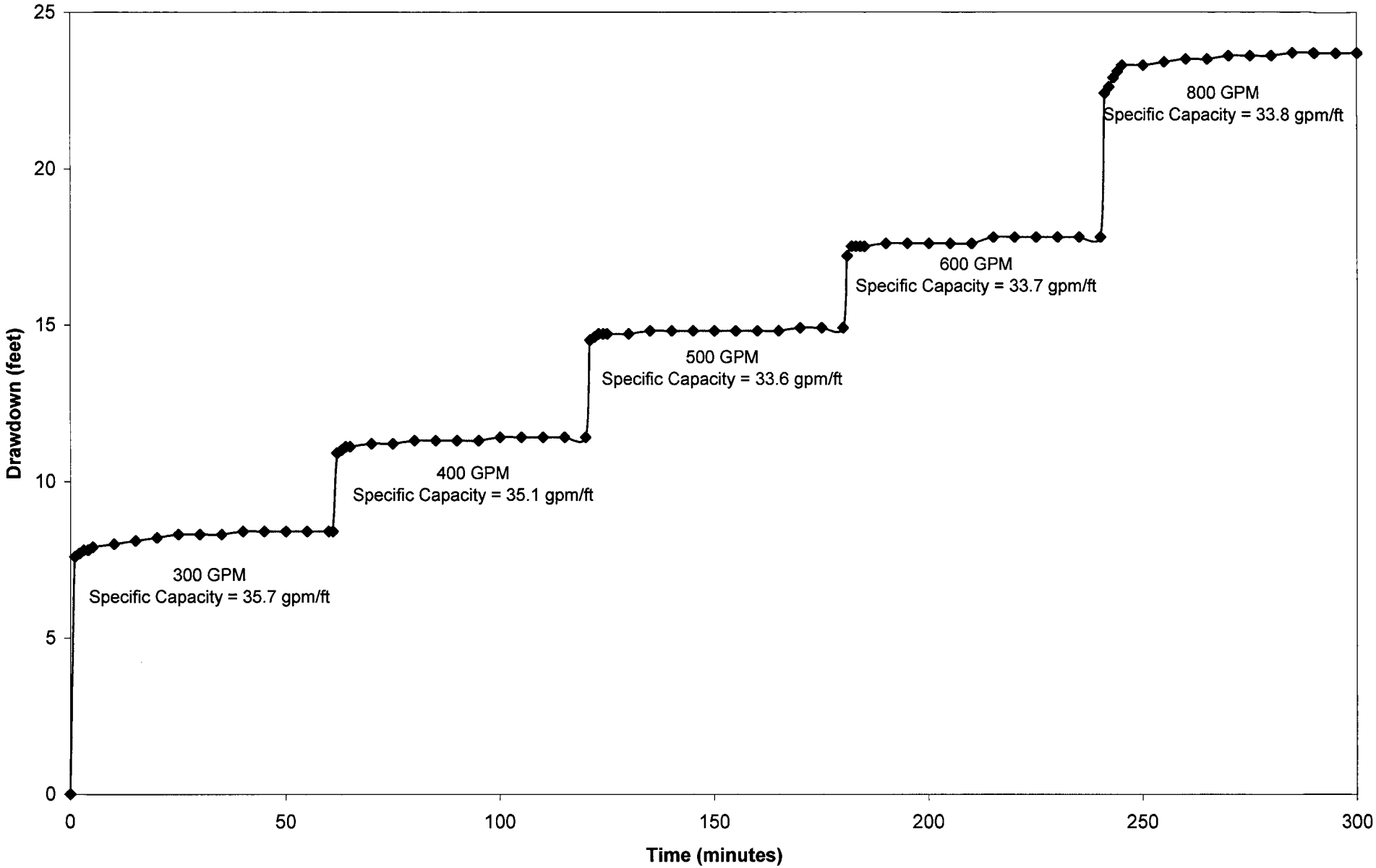
Step-Drawdown Test Results for Production Well Wilbur

Wilbur
Test Date: 22 June 2004
Recorded By: M. Colone
Static Water Level: 25.6' Below Top of Casing (btoc)

Pumping Rate (GPM)	Time (minutes)	Water Level (btoc)	Drawdown (feet)	Specific Capacity (gpm/ft)	Comments
300	0	25.6	0		
	5	33.5	7.9		
	10	33.6	8.0		
	20	33.8	8.2		Turbidity = 4.17 NTU
	30	33.9	8.3		
	40	34.0	8.4		Turbidity = 0.43 NTU
	50	34.0	8.4		
	60	34.0	8.4	35.7	Turbidity = 0.41 NTU
400	0	34.0	8.4		
	5	36.8	11.2		Turbidity = 0.37 NTU
	10	36.8	11.2		
	20	36.9	11.3		
	30	36.9	11.3		
	40	37.0	11.4		Turbidity = 0.47 NTU
	50	37.0	11.4		
	60	37.0	11.4	35.1	
500	0	37.0	11.4		
	5	40.3	14.7		Turbidity = 0.24 NTU
	10	40.3	14.7		SDI = 2.74 Units
	20	40.4	14.8		
	30	40.4	14.8		Turbidity = 0.57 NTU
	40	40.4	14.8		
	50	40.5	14.9		
	60	40.5	14.9	33.6	Turbidity = 0.35 NTU
600	0	40.5	14.9		
	5	43.1	17.5		Turbidity = 0.29 NTU
	10	43.2	17.6		
	20	43.2	17.6		
	30	43.2	17.6		Turbidity = 0.09 NTU
	40	43.4	17.8		Turbidity = 0.16 NTU
	50	43.4	17.8		
	60	43.4	17.8	33.7	Turbidity = 0.37 NTU
800	0	43.4	17.8		
	5	48.9	23.3		Turbidity = 0.60 NTU
	10	48.9	23.3		
	20	49.1	23.5		Turbidity = 0.32 NTU
	30	49.2	23.6		Turbidity = 0.49 NTU
	40	49.2	23.6		
	50	49.3	23.7		
	60	49.3	23.7	33.8	Turbidity = 0.36 NTU

*Measuring Point is Top of Casing (approximately 3 feet above land surface).

WILBUR
5 HOUR STEP TEST RESULTS



CDM

Dare County Water Department
Graph Showing Drawdown in Wilbur
While Pumping at Rates of 300, 400, 500, 600, and 800 GPM

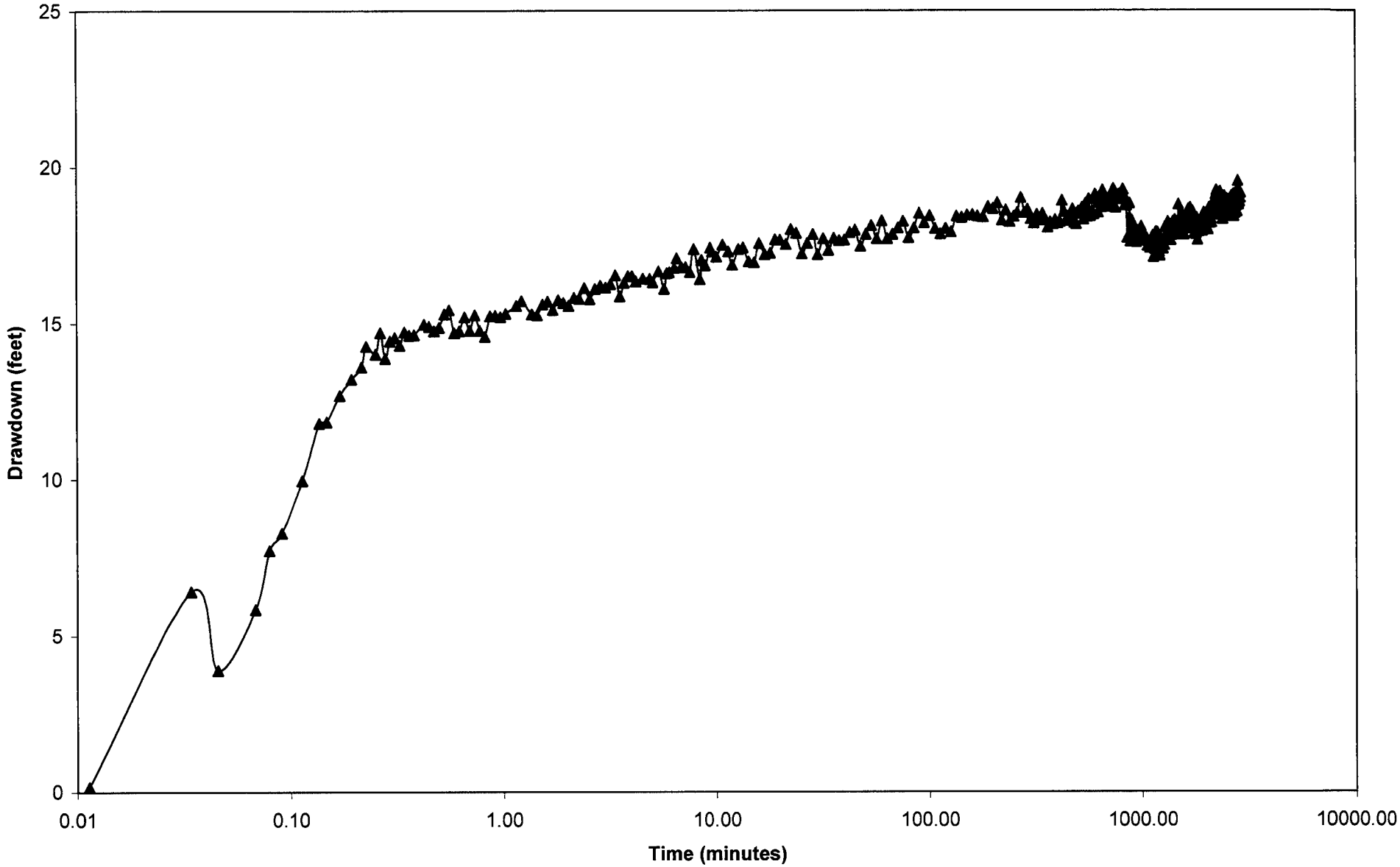
48 Hour Constant Rate Pump Test at Pumping Well Wilbur
Kill Devil Hills, North Carolina

Pumping Well Wilbur
Begin Test Date: 23 June 2004 (0604 hrs)
End Test Date: 25 June 2004 (0607 hrs)
Pumping Rate: 600 GPM
Recorded By: M. Colone
Static Water Level: 25.6' Below Top of Casing (btoc)

Pumping Rate (GPM)	Time (Minutes)	Water Level (btoc)	Drawdown (feet)	Specific Capacity (gpm/ft)
600	0	25.59	0	
	0.5	40.46	14.87	
	1	40.90	15.30	
	5	41.90	16.31	
	10	42.72	17.12	
	15	42.54	16.94	
	20	43.26	17.67	34.0
	25	42.82	17.23	
	30	42.79	17.20	
	35	43.32	17.73	
	40	43.26	17.67	
	45	43.58	17.98	
	50	43.44	17.85	
	53	43.73	18.13	
	60	43.88	18.28	
	70	43.65	18.06	33.2
	80	43.33	17.74	
	90	44.12	18.52	
	100	44.04	18.45	
	112	43.45	17.86	
	125	43.52	17.92	
	141	43.98	18.39	
	155	44.07	18.48	
	178	44.00	18.40	32.6
	208	44.45	18.85	
	238	43.85	18.25	
	268	44.62	19.02	
	298	43.94	18.34	
	328	43.89	18.30	
	358	43.66	18.07	
	398	43.80	18.21	
	468	44.25	18.66	32.2
	558	44.57	18.98	
	588	44.09	18.49	
	758	44.60	19.00	
	1028	43.27	17.68	
	1088	43.02	17.42	
	1148	42.97	17.38	
	1208	42.76	17.17	
	1268	43.11	17.52	34.3
	1328	43.37	17.77	
	1388	43.85	18.25	
	1448	43.83	18.24	
	1568	43.44	17.85	
	1688	43.77	18.18	
	1808	43.53	17.94	
	1928	43.92	19.33	
	2048	44.19	18.60	32.3
	2168	44.22	18.63	
	2288	44.30	18.70	
	2408	44.54	18.95	
	2528	44.51	18.92	
	2648	44.51	18.92	
	2768	44.27	18.67	
	2883	44.78	19.19	31.3

*Measuring point is Top of Casing approximately 3 feet above land surface.

PUMPING WELL WILBUR
48 HOUR CONSTANT RATE TEST RESULTS



CDM

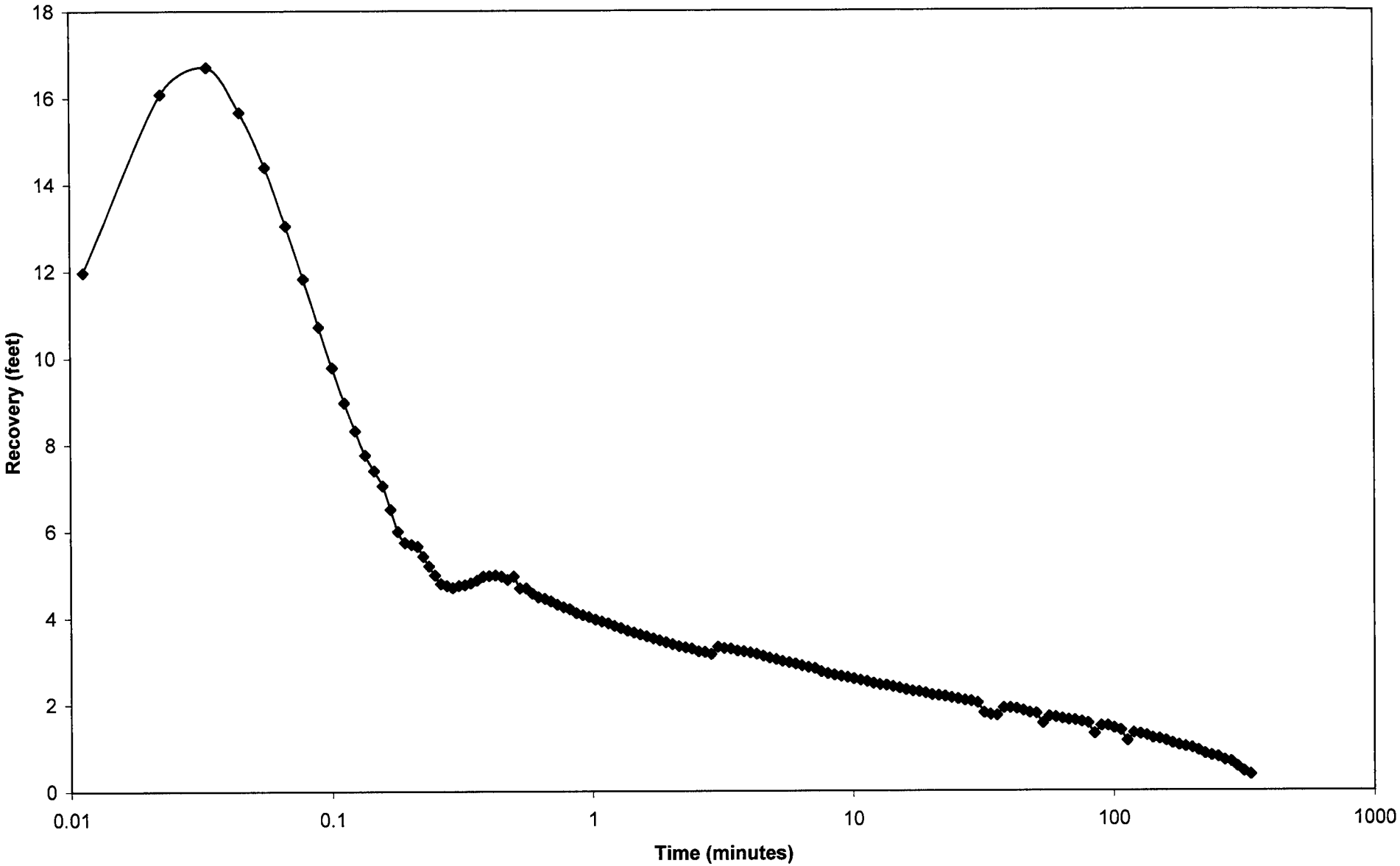
Dare County Water Department
Semi-Log Graph Showing Drawdown vs. Time in Pumping Well Wilbur
While Pumping at 600 GPM

Recovery Test Results for Pumping Well Wilbur

Pumping Well Wilbur Begin Test Date: 25 June 2004 (0616 hrs) End Test Date: 25 June 2004 (1206 hrs) Recorded By: A.C. Schultes Static Water Level: 25.6' Below Top of Casing (btoc)		
Time (Minutes)	Water Level (btoc)	Recovery (feet)
0	44.657	19.06
1	29.55	3.95
5	28.64	3.04
10	28.19	2.59
15	27.93	2.33
20	27.81	2.21
25	27.72	2.12
30	27.63	2.03
35	27.34	1.74
40	27.51	1.91
45	27.45	1.85
50	27.39	1.79
55	27.31	1.71
60	27.30	1.70
70	27.22	1.62
80	27.16	1.56
90	27.10	1.50
100	27.04	1.44
112	26.75	1.15
125	26.90	1.30
150	26.80	1.20
200	26.59	0.99
224	26.45	0.85
251	26.38	0.78
281	26.27	0.67
298	26.15	0.55
316	26.04	0.44
335	25.97	0.37

*Measuring point is Top of Casing approximately 3 feet above land surface.

PUMPING WELL WILBUR
RECOVERY TEST RESULTS



CDM

Dare County Water Department
Semi-Log Graph Showing Recovery vs. Time in Pumping Well Wilbur

In-Situ Inc. Hermit 3000

Report generated:	9/13/2004	10:22:19	
Report from file:	C:\Win-Situ\Data\SN45674 2004-08-30 113658 DARE#17 STEP .bin		
DataMgr Version	3.68		
Serial number:	45674		
Firmware Version	7.1		
Unit name:	HERMIT 3000		
Test name:	DARE#17 STEP		
Test defined on:	8/23/2004	16:59:23	
Test started on:	8/30/2004	11:36:58	
Test stopped on:	8/30/2004	16:38:55	
Test extracted on:	9/13/2004	10:08:39	

Data gathered using Logarithmic testing

Maximum time between data points:	2.0000	Minutes.
Number of data samples:	238	

TOTAL DATA SAMPLES 238

Channel number [1]

Measurement type:	Pressure		
Channel name:	Probe #1		
Linearity:	0.2503		
Scale:		99.8402	
Offset:		-0.1892	
Warmup:		50	
Specific gravity:		1	
Mode:	TOC		
User-defined reference:		29	Feet H2O
Referenced on:		channel definition.	

Channel number [3]

Measurement type:	Pressure		
Channel name:	Probe #3		
Linearity:	0.0175		
Scale:		49.7382	
Offset:		-0.2552	
Warmup:		50	
Specific gravity:		1	
Mode:	TOC		
User-defined reference:		20	Feet H2O
Referenced on:		channel definition.	
Pressure head at reference:		31.748	Feet H2O

Channel number [0]

Measurement type:		Barometric Pressure	
Channel name:	Barometric		
Linearity:	0		
Scale:		0	
Offset:		0	
Warmup:		50	

Date / Time	ET (min)	Chan[1] Feet H2O	Chan[3] Feet H2O	Chan[0] Inches Hg
8/30/2004 11:36	0	37.640	20.639	29.986
8/30/2004 11:36	0.0163	37.640	20.639	29.986
8/30/2004 11:36	0.0327	37.539	20.647	29.986

8/30/2004 11:37	0.049	37.913	20.647	29.984
8/30/2004 11:37	0.0653	37.539	20.654	29.984
8/30/2004 11:37	0.0817	37.755	20.654	29.986
8/30/2004 11:37	0.098	37.668	20.654	29.986
8/30/2004 11:37	0.1143	37.827	20.661	29.984
8/30/2004 11:37	0.1307	37.928	20.661	29.984
8/30/2004 11:37	0.147	37.625	20.668	29.984
8/30/2004 11:37	0.1633	37.870	20.675	29.982
8/30/2004 11:37	0.1797	37.827	20.675	29.984
8/30/2004 11:37	0.196	37.467	20.675	29.984
8/30/2004 11:37	0.2123	37.524	20.682	29.986
8/30/2004 11:37	0.2287	38.014	20.690	29.982
8/30/2004 11:37	0.245	37.985	20.690	29.984
8/30/2004 11:37	0.2613	37.769	20.690	29.982
8/30/2004 11:37	0.2777	37.553	20.697	29.980
8/30/2004 11:37	0.294	38.144	20.704	29.982
8/30/2004 11:37	0.3103	37.957	20.704	29.982
8/30/2004 11:37	0.3267	37.985	20.711	29.982
8/30/2004 11:37	0.3433	37.784	20.711	29.984
8/30/2004 11:37	0.361	37.611	20.718	29.982
8/30/2004 11:37	0.3797	37.712	20.718	29.982
8/30/2004 11:37	0.3995	37.409	20.726	29.982
8/30/2004 11:37	0.4205	37.640	20.726	29.982
8/30/2004 11:37	0.4427	37.625	20.726	29.978
8/30/2004 11:37	0.4662	38.043	20.733	29.982
8/30/2004 11:37	0.491	37.856	20.740	29.982
8/30/2004 11:37	0.5173	37.582	20.747	29.980
8/30/2004 11:37	0.5453	37.712	20.754	29.980
8/30/2004 11:37	0.575	38.058	20.754	29.978
8/30/2004 11:37	0.6063	37.481	20.754	29.978
8/30/2004 11:37	0.6395	37.755	20.769	29.978
8/30/2004 11:37	0.6747	37.640	20.776	29.978
8/30/2004 11:37	0.712	37.812	20.790	29.974
8/30/2004 11:37	0.7515	38.014	20.790	29.972
8/30/2004 11:37	0.7933	37.913	20.797	29.974
8/30/2004 11:37	0.8377	37.856	20.812	29.976
8/30/2004 11:37	0.8847	38.303	20.819	29.976
8/30/2004 11:37	0.9345	38.259	20.826	29.976
8/30/2004 11:37	0.9872	37.899	20.833	29.978
8/30/2004 11:38	1.043	37.697	20.833	29.976
8/30/2004 11:38	1.1022	37.957	20.847	29.976
8/30/2004 11:38	1.1648	38.000	20.847	29.976
8/30/2004 11:38	1.2312	37.856	20.862	29.976
8/30/2004 11:38	1.3015	37.985	20.862	29.976
8/30/2004 11:38	1.376	38.043	20.855	29.974
8/30/2004 11:38	1.455	37.755	20.869	29.976
8/30/2004 11:38	1.5387	38.259	20.869	29.974
8/30/2004 11:38	1.6272	38.101	20.876	29.974
8/30/2004 11:38	1.721	38.288	20.890	29.974
8/30/2004 11:38	1.8203	38.043	20.912	29.978
8/30/2004 11:38	1.9257	38.086	20.926	29.972
8/30/2004 11:39	2.0372	38.216	20.948	29.974
8/30/2004 11:39	2.1553	38.115	20.955	29.974
8/30/2004 11:39	2.2805	38.130	20.969	29.974
8/30/2004 11:39	2.413	38.202	20.991	29.974

8/30/2004 11:39	2.5535	37.827	21.012	29.976
8/30/2004 11:39	2.7023	38.014	21.034	29.974
8/30/2004 11:39	2.8598	37.726	21.055	29.974
[redacted]/30/2004 11:39	3.0267	38.144	21.048	29.972
[redacted]/30/2004 11:40	3.2035	38.000	21.048	29.974
8/30/2004 11:40	3.3908	38.533	21.048	29.972
8/30/2004 11:40	3.5892	38.475	21.070	29.972
8/30/2004 11:40	3.7993	38.014	21.077	29.974
8/30/2004 11:40	4.022	38.202	21.091	29.972
8/30/2004 11:41	4.2578	38.418	21.113	29.952
8/30/2004 11:41	4.5077	38.519	21.163	29.945
8/30/2004 11:41	4.7723	38.591	21.192	29.950
8/30/2004 11:42	5.0527	38.533	21.192	29.954
8/30/2004 11:42	5.3495	38.533	21.199	29.956
8/30/2004 11:42	5.664	38.576	21.235	29.962
8/30/2004 11:42	5.9972	38.432	21.249	29.964
8/30/2004 11:43	6.35	38.086	21.263	29.964
8/30/2004 11:43	6.7238	38.331	21.278	29.968
8/30/2004 11:44	7.1198	38.447	21.285	29.966
8/30/2004 11:44	7.5392	38.706	21.299	29.966
8/30/2004 11:44	7.9835	38.331	21.314	29.970
8/30/2004 11:45	8.4542	38.504	21.342	29.970
8/30/2004 11:45	8.9527	38.706	21.357	29.968
8/30/2004 11:46	9.4807	38.663	21.407	29.968
8/30/2004 11:47	10.04	38.447	21.436	29.994
8/30/2004 11:47	10.6325	38.764	21.443	29.990
8/30/2004 11:48	11.26	38.605	21.450	29.982
8/30/2004 11:48	11.9248	38.937	21.479	29.980
[redacted]/30/2004 11:49	12.629	38.576	21.500	29.978
8/30/2004 11:50	13.3748	38.821	21.536	29.978
8/30/2004 11:51	14.1648	39.153	21.572	29.950
8/30/2004 11:51	15.0017	38.721	21.586	29.960
8/30/2004 11:52	15.8882	38.605	21.600	29.962
8/30/2004 11:53	16.8272	39.110	21.651	29.962
8/30/2004 11:54	17.8218	38.648	21.672	29.962
8/30/2004 11:55	18.8755	38.850	21.679	29.960
8/30/2004 11:56	19.9915	39.167	21.730	29.964
8/30/2004 11:58	21.1737	39.052	21.737	29.960
8/30/2004 11:59	22.4258	39.268	21.794	29.960
8/30/2004 12:00	23.7523	39.081	21.787	29.962
8/30/2004 12:02	25.1573	39.139	21.844	29.958
8/30/2004 12:03	26.6457	39.196	21.866	29.954
8/30/2004 12:05	28.2222	38.793	21.895	29.954
8/30/2004 12:06	29.892	39.023	21.909	29.952
8/30/2004 12:08	31.6608	38.994	21.966	29.943
8/30/2004 12:10	33.5345	38.980	21.995	29.941
8/30/2004 12:12	35.5192	39.023	22.002	29.939
8/30/2004 12:14	37.5192	39.167	22.052	29.939
8/30/2004 12:16	39.5192	39.023	22.088	29.939
8/30/2004 12:18	41.5192	39.585	22.088	29.933
8/30/2004 12:20	43.5192	39.427	22.103	29.935
8/30/2004 12:22	45.5192	39.557	22.181	29.962
[redacted]/30/2004 12:24	47.5192	39.412	22.174	29.950
[redacted]/30/2004 12:26	49.5192	39.513	22.217	29.950
8/30/2004 12:28	51.5192	39.081	22.224	29.948

8/30/2004 12:30	53.5192	39.254	22.303	29.933
8/30/2004 12:32	55.5192	38.879	22.318	29.948
8/30/2004 12:34	57.5192	39.470	22.289	29.952
8/30/2004 12:36	59.5192	41.834	22.346	29.954
8/30/2004 12:38	61.5192	42.136	22.590	29.968
8/30/2004 12:40	63.5192	41.733	22.619	29.941
8/30/2004 12:42	65.5192	42.237	22.719	29.952
8/30/2004 12:44	67.5192	42.237	22.755	29.954
8/30/2004 12:46	69.5192	42.295	22.813	29.978
8/30/2004 12:48	71.5192	42.295	22.784	29.950
8/30/2004 12:50	73.5192	42.439	22.848	29.954
8/30/2004 12:52	75.5192	42.598	22.906	29.954
8/30/2004 12:54	77.5192	42.079	22.906	29.954
8/30/2004 12:56	79.5192	41.891	22.963	29.956
8/30/2004 12:58	81.5192	42.641	22.985	29.952
8/30/2004 13:00	83.5192	42.482	22.977	29.952
8/30/2004 13:02	85.5192	42.050	23.035	29.952
8/30/2004 13:04	87.5192	42.396	23.078	29.962
8/30/2004 13:06	89.5192	42.367	23.085	29.941
8/30/2004 13:08	91.5192	42.324	23.085	29.950
8/30/2004 13:10	93.5192	42.439	23.150	29.950
8/30/2004 13:12	95.5192	42.569	23.142	29.952
8/30/2004 13:14	97.5192	42.468	23.193	29.952
8/30/2004 13:16	99.5192	42.785	23.221	29.954
8/30/2004 13:18	101.5192	42.583	23.257	29.954
8/30/2004 13:20	103.5192	42.698	23.264	29.954
8/30/2004 13:22	105.5192	42.252	23.286	29.970
8/30/2004 13:24	107.5192	42.958	23.293	29.966
8/30/2004 13:26	109.5192	42.756	23.329	29.950
8/30/2004 13:28	111.5192	42.871	23.343	29.954
8/30/2004 13:30	113.5192	42.900	23.372	29.978
8/30/2004 13:32	115.5192	42.771	23.408	29.966
8/30/2004 13:34	117.5192	42.353	23.350	29.937
8/30/2004 13:36	119.5192	45.062	23.465	29.954
8/30/2004 13:38	121.5192	45.293	23.623	29.974
8/30/2004 13:40	123.5192	45.163	23.709	29.972
8/30/2004 13:42	125.5192	45.653	23.752	29.950
8/30/2004 13:44	127.5192	45.134	23.831	29.958
8/30/2004 13:46	129.5192	45.379	23.852	29.982
8/30/2004 13:48	131.5192	45.422	23.860	29.956
8/30/2004 13:50	133.5192	45.350	23.903	29.960
8/30/2004 13:52	135.5192	45.840	23.939	29.962
8/30/2004 13:54	137.5192	45.638	23.989	29.962
8/30/2004 13:56	139.5192	45.610	24.025	29.958
8/30/2004 13:58	141.5192	46.359	24.046	29.960
8/30/2004 14:00	143.5192	45.826	24.060	29.958
8/30/2004 14:02	145.5192	45.624	24.039	29.954
8/30/2004 14:04	147.5192	45.595	24.103	29.954
8/30/2004 14:06	149.5192	45.696	24.125	29.952
8/30/2004 14:08	151.5192	46.042	24.132	29.952
8/30/2004 14:10	153.5192	46.128	24.154	29.948
8/30/2004 14:12	155.5192	46.128	24.161	29.950
8/30/2004 14:14	157.5192	45.797	24.175	29.948
8/30/2004 14:16	159.5192	45.667	24.211	29.943
8/30/2004 14:18	161.5192	46.100	24.225	29.945

8/30/2004 14:20	163.5192	45.898	24.233	29.943
8/30/2004 14:22	165.5192	45.912	24.254	29.943
8/30/2004 14:24	167.5192	45.811	24.276	29.939
[redacted]/30/2004 14:26	169.5192	45.682	24.311	29.939
[redacted]/30/2004 14:28	171.5192	46.085	24.297	29.941
8/30/2004 14:30	173.5192	46.172	24.319	29.929
8/30/2004 14:32	175.5192	46.013	24.340	29.935
8/30/2004 14:34	177.5192	46.301	24.354	29.937
8/30/2004 14:36	179.5192	50.437	24.419	29.937
8/30/2004 14:38	181.5192	51.172	24.756	29.935
8/30/2004 14:40	183.5192	51.129	24.878	29.935
8/30/2004 14:42	185.5192	51.504	24.993	29.933
8/30/2004 14:44	187.5192	51.662	25.072	29.935
8/30/2004 14:46	189.5192	51.446	25.136	29.935
8/30/2004 14:48	191.5192	51.691	25.179	29.931
8/30/2004 14:50	193.5192	51.748	25.215	29.929
8/30/2004 14:52	195.5192	51.993	25.258	29.931
8/30/2004 14:54	197.5192	51.475	25.272	29.933
8/30/2004 14:56	199.5192	51.518	25.337	29.933
8/30/2004 14:58	201.5192	52.008	25.366	29.931
8/30/2004 15:00	203.5192	51.835	25.409	29.931
8/30/2004 15:02	205.5192	51.691	25.430	29.929
8/30/2004 15:04	207.5192	51.993	25.452	29.929
8/30/2004 15:06	209.5192	52.253	25.473	29.927
8/30/2004 15:08	211.5192	51.763	25.502	29.941
8/30/2004 15:10	213.5192	52.166	25.516	29.948
8/30/2004 15:12	215.5192	51.979	25.552	29.921
8/30/2004 15:14	217.5192	51.763	25.567	29.923
[redacted]/30/2004 15:16	219.5192	52.210	25.581	29.923
8/30/2004 15:18	221.5192	52.325	25.610	29.927
8/30/2004 15:20	223.5192	52.411	25.624	29.923
8/30/2004 15:22	225.5192	51.993	25.645	29.925
8/30/2004 15:24	227.5192	52.325	25.667	29.921
8/30/2004 15:26	229.5192	52.210	25.696	29.921
8/30/2004 15:28	231.5192	52.382	25.724	29.960
8/30/2004 15:30	233.5192	52.181	25.739	29.941
8/30/2004 15:32	235.5192	52.469	25.753	29.911
8/30/2004 15:34	237.5192	52.411	25.775	29.917
8/30/2004 15:36	239.5192	55.135	25.789	29.915
8/30/2004 15:38	241.5192	55.293	26.004	29.952
8/30/2004 15:40	243.5192	55.509	26.083	29.939
8/30/2004 15:42	245.5192	55.495	26.147	29.913
8/30/2004 15:44	247.5192	55.581	26.190	29.917
8/30/2004 15:46	249.5192	55.740	26.234	29.919
8/30/2004 15:48	251.5192	55.596	26.248	29.913
8/30/2004 15:50	253.5192	55.769	26.305	29.917
8/30/2004 15:52	255.5192	55.567	26.327	29.915
8/30/2004 15:54	257.5192	55.812	26.348	29.915
8/30/2004 15:56	259.5192	55.725	26.370	29.915
8/30/2004 15:58	261.5192	55.682	26.406	29.909
8/30/2004 16:00	263.5192	55.855	26.406	29.909
8/30/2004 16:02	265.5192	55.855	26.456	29.935
[redacted]/30/2004 16:04	267.5192	55.754	26.470	29.901
[redacted]/30/2004 16:06	269.5192	55.999	26.470	29.903
8/30/2004 16:08	271.5192	55.884	26.506	29.909

8/30/2004 16:10	273.5192	55.884	26.520	29.909
8/30/2004 16:12	275.5192	56.129	26.542	29.907
8/30/2004 16:14	277.5192	55.898	26.556	29.905
8/30/2004 16:16	279.5192	56.114	26.578	29.907
8/30/2004 16:18	281.5192	55.841	26.585	29.907
8/30/2004 16:20	283.5192	56.129	26.599	29.909
8/30/2004 16:22	285.5192	55.970	26.628	29.937
8/30/2004 16:24	287.5192	56.129	26.642	29.929
8/30/2004 16:26	289.5192	56.114	26.649	29.909
8/30/2004 16:28	291.5192	56.158	26.671	29.913
8/30/2004 16:30	293.5192	56.071	26.678	29.915
8/30/2004 16:32	295.5192	56.129	26.678	29.907
8/30/2004 16:34	297.5192	56.114	26.700	29.911
8/30/2004 16:36	299.5192	56.302	26.707	29.905
8/30/2004 16:38	301.5192	48.449	26.470	29.948

Time (min)	Drawdown (feet)	Pumping Level (btoc)
0	0	25.6
1	7.6	33.2
2	7.7	33.3
3	7.8	33.4
4	7.8	33.4
5	7.9	33.5
10	8	33.6
15	8.1	33.7
20	8.2	33.8
25	8.3	33.9
30	8.3	33.9
35	8.3	33.9
40	8.4	34.0
45	8.4	34.0
50	8.4	34.0
55	8.4	34.0
60	8.4	34.0
61	8.4	34.0
62	10.9	36.5
63	11	36.6
64	11.1	36.7
65	11.1	36.7
70	11.2	36.8
75	11.2	36.8
80	11.3	36.9
85	11.3	36.9
90	11.3	36.9
95	11.3	36.9
100	11.4	37.0
105	11.4	37.0
110	11.4	37.0
115	11.4	37.0
120	11.4	37.0
121	14.5	40.1
122	14.6	40.2
123	14.7	40.3
124	14.7	40.3
125	14.7	40.3
130	14.7	40.3
135	14.8	40.4
140	14.8	40.4
145	14.8	40.4
150	14.8	40.4
155	14.8	40.4
160	14.8	40.4
165	14.8	40.4
170	14.9	40.5
175	14.9	40.5
180	14.9	40.5
181	17.2	42.8
182	17.5	43.1

183	17.5	43.1
184	17.5	43.1
185	17.5	43.1
190	17.6	43.2
195	17.6	43.2
200	17.6	43.2
205	17.6	43.2
210	17.6	43.2
215	17.8	43.4
220	17.8	43.4
225	17.8	43.4
230	17.8	43.4
235	17.8	43.4
240	17.8	43.4
241	22.4	48.0
242	22.6	48.2
243	22.9	48.5
244	23.1	48.7
245	23.3	48.9
250	23.3	48.9
255	23.4	49.0
260	23.5	49.1
265	23.5	49.1
270	23.6	49.2
275	23.6	49.2
280	23.6	49.2
285	23.7	49.3
290	23.7	49.3
295	23.7	49.3
300	23.7	49.3

In-Situ Inc. Hermit 3000 600 GPM 48-HOUR PUMP TEST

Report generated: 6/28/2004 8:11:12
Report from file: C:\Win-Situ\Data\SN45674 2004-06-23 060402 WILBER-PUMPTEST .bin
DataMgr Version 3.68

Serial number: 45674
Firmware Version 7.1
Unit name: HERMIT 3000

Test name: WILBUR-PUMP TEST

Test defined on: 6/23/2004 5:55:55
Test started on: 6/23/2004 6:04:02
Test stopped on: 6/25/2004 6:07:54
Test extracted on: 6/28/2004 7:56:40

Data gathered using Logarithmic testing
Maximum time between data points: 0.1667 Minutes.
Number of data samples: 17353

TOTAL DATA SAMPLES 17353

Channel number [1]
Measurement type: Pressure
Channel name: Probe #1
Linearity: 0.3421
Scale: 104.3092
Offset: -0.0934
Warmup: 50
Specific gravity: 1
Mode: TOC
User-defined reference: 25.593 Feet H2O
Referenced on: test start
Pressure head at reference: 71.385 Feet H2O

Channel number [0]
Measurement type: Barometric Pressure
Channel name: Barometric
Linearity: 0
Scale: 0
Offset: 0
Warmup: 50

Date	Time	ET (min)	Chan[1] Feet H2O	Chan[0] Inches Hg	Drawdown (feet)
6/23/2004	6:04	0.000	25.594	29.982	0.000
6/23/2004	6:04	0.011	25.758	29.984	0.164
6/23/2004	6:04	0.034	32.010	29.986	6.416
[redacted]/2004	6:04	0.045	29.494	29.984	3.900
[redacted]/2004	6:04	0.068	31.439	29.984	5.845

6/23/2004 6:04	0.079	33.322	29.984	7.728
[redacted]/2004 6:04	0.091	33.876	29.984	8.282
6/23/2004 6:04	0.113	35.549	29.984	9.955
6/23/2004 6:04	0.136	37.385	29.984	11.791
6/23/2004 6:04	0.147	37.431	29.986	11.837
6/23/2004 6:04	0.170	38.274	29.984	12.680
6/23/2004 6:04	0.193	38.802	29.986	13.208
6/23/2004 6:04	0.215	39.193	29.986	13.599
6/23/2004 6:04	0.227	39.855	29.988	14.261
6/23/2004 6:04	0.251	39.599	29.984	14.005
6/23/2004 6:04	0.264	40.292	29.984	14.698
6/23/2004 6:04	0.278	39.465	29.984	13.871
6/23/2004 6:04	0.293	40.023	29.986	14.429
6/23/2004 6:04	0.309	40.128	29.984	14.534
6/23/2004 6:04	0.325	39.885	29.986	14.291
6/23/2004 6:04	0.343	40.308	29.984	14.714
6/23/2004 6:04	0.362	40.203	29.984	14.609
6/23/2004 6:04	0.381	40.216	29.984	14.622
6/23/2004 6:04	0.425	40.564	29.986	14.970
6/23/2004 6:04	0.448	40.488	29.986	14.894
6/23/2004 6:04	0.473	40.337	29.986	14.743
6/23/2004 6:04	0.499	40.459	29.986	14.865
6/23/2004 6:04	0.527	40.879	29.986	15.285
6/23/2004 6:04	0.557	41.016	29.986	15.422
6/23/2004 6:04	0.588	40.278	29.986	14.684
6/23/2004 6:04	0.621	40.337	29.986	14.743
[redacted]/2004 6:04	0.657	40.790	29.986	15.196
6/23/2004 6:04	0.694	40.354	29.986	14.760
6/23/2004 6:04	0.733	40.849	29.986	15.255
6/23/2004 6:04	0.775	40.354	29.984	14.760
6/23/2004 6:04	0.820	40.157	29.984	14.563
6/23/2004 6:04	0.867	40.820	29.984	15.226
6/23/2004 6:04	0.916	40.833	29.986	15.239
6/23/2004 6:05	0.969	40.790	29.986	15.196
6/23/2004 6:05	1.025	40.895	29.986	15.301
6/23/2004 6:05	1.147	41.151	29.988	15.557
6/23/2004 6:05	1.213	41.302	29.984	15.708
6/23/2004 6:05	1.358	40.879	29.986	15.285
6/23/2004 6:05	1.437	40.849	29.986	15.255
6/23/2004 6:05	1.521	41.197	29.990	15.603
6/23/2004 6:05	1.609	41.285	29.988	15.691
6/23/2004 6:05	1.703	41.016	29.988	15.422
6/23/2004 6:05	1.802	41.331	29.988	15.737
6/23/2004 6:05	1.908	41.239	29.988	15.645
6/23/2004 6:06	2.019	41.151	29.988	15.557
6/23/2004 6:06	2.137	41.407	29.988	15.813
6/23/2004 6:06	2.262	41.377	29.988	15.783
6/23/2004 6:06	2.395	41.722	29.988	16.128
6/23/2004 6:06	2.535	41.361	29.990	15.767
6/23/2004 6:06	2.684	41.692	29.988	16.098
[redacted]/2004 6:06	2.842	41.797	29.988	16.203
[redacted]/2004 6:07	3.008	41.738	29.988	16.144

6/23/2004 6:07	3.175	41.843	29.988	16.249
[redacted]/2004 6:07	3.342	42.128	29.988	16.534
6/23/2004 6:07	3.508	41.453	29.990	15.859
6/23/2004 6:07	3.675	41.889	29.990	16.295
6/23/2004 6:07	3.842	42.099	29.992	16.505
6/23/2004 6:08	4.008	42.099	29.990	16.505
6/23/2004 6:08	4.175	41.935	29.990	16.341
6/23/2004 6:08	4.508	42.023	29.992	16.429
6/23/2004 6:08	4.842	42.010	29.990	16.416
6/23/2004 6:09	5.008	41.902	29.990	16.308
6/23/2004 6:09	5.342	42.250	29.943	16.656
6/23/2004 6:09	5.675	41.692	29.943	16.098
6/23/2004 6:09	5.842	42.191	29.943	16.597
6/23/2004 6:10	6.008	42.220	29.945	16.626
6/23/2004 6:10	6.342	42.371	29.948	16.777
6/23/2004 6:10	6.508	42.673	29.948	17.079
6/23/2004 6:10	6.842	42.384	29.950	16.790
6/23/2004 6:11	7.175	42.384	29.952	16.790
6/23/2004 6:11	7.508	42.233	29.952	16.639
6/23/2004 6:11	7.842	42.958	29.952	17.364
6/23/2004 6:12	8.342	41.994	29.952	16.400
6/23/2004 6:12	8.508	42.610	29.950	17.016
6/23/2004 6:12	8.842	42.446	29.952	16.852
6/23/2004 6:13	9.342	43.017	29.952	17.423
6/23/2004 6:13	9.508	42.883	29.954	17.289
6/23/2004 6:14	10.008	42.715	29.950	17.121
[redacted]/2004 6:14	10.675	43.109	29.952	17.515
6/23/2004 6:15	11.342	42.883	29.954	17.289
6/23/2004 6:15	11.842	42.460	29.952	16.866
6/23/2004 6:16	12.675	42.958	29.952	17.364
6/23/2004 6:17	13.342	43.017	29.950	17.423
6/23/2004 6:18	14.175	42.565	29.950	16.971
6/23/2004 6:19	15.008	42.535	29.952	16.941
6/23/2004 6:19	15.842	43.152	29.950	17.558
6/23/2004 6:20	16.842	42.791	29.948	17.197
6/23/2004 6:21	17.842	42.837	29.950	17.243
6/23/2004 6:22	18.842	43.273	29.952	17.679
6/23/2004 6:23	19.842	43.260	29.950	17.666
6/23/2004 6:25	21.175	43.122	29.950	17.528
6/23/2004 6:26	22.342	43.604	29.950	18.010
6/23/2004 6:27	23.675	43.483	29.952	17.889
6/23/2004 6:29	25.175	42.820	29.950	17.226
6/23/2004 6:30	26.675	43.152	29.952	17.558
6/23/2004 6:32	28.342	43.440	29.950	17.846
6/23/2004 6:33	29.842	42.791	29.950	17.197
6/23/2004 6:35	31.675	43.303	29.948	17.709
6/23/2004 6:37	33.508	42.929	29.948	17.335
6/23/2004 6:39	35.508	43.319	29.950	17.725
6/23/2004 6:41	37.675	43.244	29.950	17.650
6/23/2004 6:43	39.842	43.260	29.952	17.666
[redacted]/2004 6:46	42.175	43.499	29.950	17.905
[redacted]/2004 6:48	44.675	43.575	29.948	17.981

6/23/2004 6:51	47.342	43.063	29.948	17.469
[redacted]/2004 6:54	50.175	43.440	29.952	17.846
6/23/2004 6:57	53.175	43.726	29.952	18.132
6/23/2004 7:00	56.342	43.303	29.956	17.709
6/23/2004 7:03	59.675	43.877	29.956	18.283
6/23/2004 7:07	63.175	43.303	29.960	17.709
6/23/2004 7:10	66.842	43.440	29.962	17.846
6/23/2004 7:14	70.842	43.650	29.964	18.056
6/23/2004 7:19	75.008	43.860	29.964	18.266
6/23/2004 7:23	79.508	43.332	29.966	17.738
6/23/2004 7:28	84.175	43.650	29.966	18.056
6/23/2004 7:33	89.175	44.116	29.966	18.522
6/23/2004 7:38	94.342	43.814	29.970	18.220
6/23/2004 7:44	100.008	44.041	29.974	18.447
6/23/2004 7:49	105.842	43.634	29.972	18.040
6/23/2004 7:56	112.342	43.453	30.031	17.859
6/23/2004 8:02	118.842	43.634	30.027	18.040
6/23/2004 8:09	125.842	43.516	29.994	17.922
6/23/2004 8:17	133.342	44.027	29.996	18.433
6/23/2004 8:25	141.175	43.982	29.998	18.388
6/23/2004 8:33	149.675	44.057	30.002	18.463
6/23/2004 8:42	158.508	44.070	30.007	18.476
6/23/2004 8:51	167.842	44.027	30.015	18.433
6/23/2004 9:01	177.842	43.995	30.023	18.401
6/23/2004 9:11	187.842	44.326	30.031	18.732
[redacted]/2004 9:21	197.842	44.267	30.035	18.673
[redacted]/2004 9:31	207.842	44.447	30.041	18.853
6/23/2004 9:41	217.842	43.890	30.043	18.296
6/23/2004 9:51	227.842	44.221	30.041	18.627
6/23/2004 10:01	237.842	43.847	30.043	18.253
6/23/2004 10:11	247.842	44.011	30.078	18.417
6/23/2004 10:21	257.842	44.132	30.051	18.538
6/23/2004 10:31	267.842	44.615	30.066	19.021
6/23/2004 10:41	277.842	44.132	30.064	18.538
6/23/2004 10:51	287.842	44.237	30.068	18.643
6/23/2004 11:01	297.842	43.936	30.070	18.342
6/23/2004 11:11	307.842	43.801	30.076	18.207
6/23/2004 11:21	317.842	44.070	30.086	18.476
6/23/2004 11:31	327.842	43.890	30.102	18.296
6/23/2004 11:41	337.842	44.103	30.102	18.509
6/23/2004 11:51	347.842	43.922	30.102	18.328
6/23/2004 12:01	357.842	43.663	30.104	18.069
6/23/2004 12:11	367.842	43.831	30.104	18.237
6/23/2004 12:21	377.842	43.772	30.106	18.178
6/23/2004 12:31	387.842	43.906	30.104	18.312
6/23/2004 12:41	397.842	43.801	30.108	18.207
6/23/2004 12:51	407.842	43.847	30.102	18.253
6/23/2004 13:01	417.842	44.523	30.104	18.929
6/23/2004 13:11	427.842	44.162	30.106	18.568
6/23/2004 13:21	437.842	43.922	30.108	18.328
[redacted]/2004 13:31	447.842	44.011	30.110	18.417
[redacted]/2004 13:41	457.842	43.877	30.108	18.283

6/23/2004 13:51	467.842	44.250	30.110	18.656
[redacted]/2004 14:01	477.842	43.814	30.110	18.220
6/23/2004 14:11	487.842	43.772	30.098	18.178
6/23/2004 14:21	497.842	44.178	30.110	18.584
6/23/2004 14:31	507.842	44.103	30.106	18.509
6/23/2004 14:41	517.842	44.283	30.092	18.689
6/23/2004 14:51	527.842	43.922	30.094	18.328
6/23/2004 15:01	537.842	44.418	30.076	18.824
6/23/2004 15:11	547.842	44.011	30.062	18.417
6/23/2004 15:21	557.842	44.569	30.045	18.975
6/23/2004 15:31	567.842	44.027	30.039	18.433
6/23/2004 15:41	577.842	44.178	30.035	18.584
6/23/2004 15:51	587.842	44.086	30.041	18.492
6/23/2004 16:01	597.842	44.720	30.039	19.126
6/23/2004 16:11	607.842	44.582	30.035	18.988
6/23/2004 16:21	617.842	44.146	30.037	18.552
6/23/2004 16:31	627.842	44.447	30.037	18.853
6/23/2004 16:41	637.842	44.313	30.035	18.719
6/23/2004 16:51	647.842	44.854	30.035	19.260
6/23/2004 17:01	657.842	44.690	30.041	19.096
6/23/2004 17:11	667.842	44.359	30.033	18.765
6/23/2004 17:21	677.842	44.552	30.025	18.958
6/23/2004 17:31	687.842	44.539	30.029	18.945
6/23/2004 17:41	697.842	44.569	30.029	18.975
6/23/2004 17:51	707.842	44.628	30.027	19.034
[redacted]/2004 18:01	717.842	44.326	30.021	18.732
[redacted]/2004 18:11	727.842	44.900	30.019	19.306
6/23/2004 18:21	737.842	44.569	30.013	18.975
6/23/2004 18:31	747.842	44.296	30.019	18.702
6/23/2004 18:41	757.842	44.598	30.017	19.004
6/23/2004 18:51	767.842	44.703	30.021	19.109
6/23/2004 19:01	777.842	44.720	30.029	19.126
6/23/2004 19:11	787.842	44.569	30.017	18.975
6/23/2004 19:21	797.842	44.644	30.015	19.050
6/23/2004 19:31	807.842	44.884	30.009	19.290
6/23/2004 19:41	817.842	44.674	30.000	19.080
6/23/2004 19:51	827.842	44.388	29.998	18.794
6/23/2004 20:01	837.842	44.372	29.994	18.778
6/23/2004 20:11	847.842	43.332	30.023	17.738
6/23/2004 20:21	857.842	43.365	30.029	17.771
6/23/2004 20:31	867.842	44.434	29.994	18.840
6/23/2004 20:41	877.842	43.214	29.988	17.620
6/23/2004 20:51	887.842	43.890	29.958	18.296
6/23/2004 21:01	897.842	43.709	29.956	18.115
6/23/2004 21:11	907.842	43.726	29.958	18.132
6/23/2004 21:21	917.842	43.604	29.956	18.010
6/23/2004 21:31	927.842	43.470	29.960	17.876
6/23/2004 21:41	937.842	43.198	29.948	17.604
6/23/2004 21:51	947.842	43.545	29.960	17.951
6/23/2004 22:01	957.842	43.260	29.966	17.666
[redacted]/2004 22:11	967.842	43.408	29.970	17.814
[redacted]/2004 22:21	977.842	43.424	29.970	17.830

6/23/2004 22:31	987.842	43.696	29.966	18.102
[redacted]/2004 22:41	997.842	43.260	29.968	17.666
6/23/2004 22:51	1007.842	43.440	29.970	17.846
6/23/2004 23:01	1017.842	43.289	29.978	17.695
6/23/2004 23:11	1027.842	43.273	29.978	17.679
6/23/2004 23:21	1037.842	43.244	29.980	17.650
6/23/2004 23:31	1047.842	43.319	29.982	17.725
6/23/2004 23:41	1057.842	43.076	29.994	17.482
6/23/2004 23:51	1067.842	43.214	29.994	17.620
6/24/2004 0:01	1077.842	43.093	30.005	17.499
6/24/2004 0:11	1087.842	43.017	29.996	17.423
6/24/2004 0:21	1097.842	43.139	30.009	17.545
6/24/2004 0:31	1107.842	43.273	30.013	17.679
6/24/2004 0:41	1117.842	43.394	30.007	17.800
6/24/2004 0:51	1127.842	42.715	30.000	17.121
6/24/2004 1:01	1137.842	43.168	30.000	17.574
6/24/2004 1:11	1147.842	42.971	29.992	17.377
6/24/2004 1:21	1157.842	43.516	29.996	17.922
6/24/2004 1:31	1167.842	43.152	29.994	17.558
6/24/2004 1:41	1177.842	43.499	29.992	17.905
6/24/2004 1:51	1187.842	43.076	29.986	17.482
6/24/2004 2:01	1197.842	42.883	29.990	17.289
6/24/2004 2:11	1207.842	42.761	29.992	17.167
6/24/2004 2:21	1217.842	43.332	29.996	17.738
6/24/2004 2:31	1227.842	43.184	29.994	17.590
6/24/2004 2:41	1237.842	43.109	29.992	17.515
[redacted]/2004 2:51	1247.842	42.988	29.990	17.394
6/24/2004 3:01	1257.842	43.273	29.986	17.679
6/24/2004 3:11	1267.842	43.109	29.980	17.515
6/24/2004 3:21	1277.842	43.680	29.972	18.086
6/24/2004 3:31	1287.842	43.273	29.968	17.679
6/24/2004 3:41	1297.842	43.470	29.966	17.876
6/24/2004 3:51	1307.842	43.260	29.966	17.666
6/24/2004 4:01	1317.842	43.847	29.960	18.253
6/24/2004 4:11	1327.842	43.365	29.962	17.771
6/24/2004 4:21	1337.842	43.440	29.964	17.846
6/24/2004 4:31	1347.842	43.621	29.968	18.027
6/24/2004 4:41	1357.842	43.260	29.970	17.666
6/24/2004 4:51	1367.842	43.424	29.970	17.830
6/24/2004 5:01	1377.842	43.801	29.976	18.207
6/24/2004 5:11	1387.842	43.847	29.976	18.253
6/24/2004 5:21	1397.842	43.529	29.978	17.935
6/24/2004 5:31	1407.842	43.680	29.984	18.086
6/24/2004 5:41	1417.842	43.906	29.984	18.312
6/24/2004 5:51	1427.842	43.621	29.988	18.027
6/24/2004 6:01	1437.842	43.440	29.988	17.846
6/24/2004 6:11	1447.842	43.831	29.996	18.237
6/24/2004 6:21	1457.842	43.709	30.005	18.115
6/24/2004 6:31	1467.842	43.785	30.005	18.191
6/24/2004 6:41	1477.842	44.401	30.007	18.807
[redacted]/2004 6:51	1487.842	43.575	30.017	17.981
[redacted]/2004 7:01	1497.842	43.591	30.021	17.997

6/24/2004 7:11	1507.842	43.801	30.029	18.207
[redacted]/2004 7:21	1517.842	43.529	30.037	17.935
6/24/2004 7:31	1527.842	44.116	30.039	18.522
6/24/2004 7:41	1537.842	43.847	30.039	18.253
6/24/2004 7:51	1547.842	43.663	30.049	18.069
6/24/2004 8:01	1557.842	43.663	30.112	18.069
6/24/2004 8:11	1567.842	43.440	30.062	17.846
6/24/2004 8:21	1577.842	43.982	30.068	18.388
6/24/2004 8:31	1587.842	43.634	30.066	18.040
6/24/2004 8:41	1597.842	43.936	30.066	18.342
6/24/2004 8:51	1607.842	43.801	30.076	18.207
6/24/2004 9:01	1617.842	43.696	30.080	18.102
6/24/2004 9:11	1627.842	43.696	30.088	18.102
6/24/2004 9:21	1637.842	43.785	30.092	18.191
6/24/2004 9:31	1647.842	44.250	30.096	18.656
6/24/2004 9:41	1657.842	43.995	30.100	18.401
6/24/2004 9:51	1667.842	43.936	30.096	18.342
6/24/2004 10:01	1677.842	44.296	30.104	18.702
6/24/2004 10:11	1687.842	43.772	30.106	18.178
6/24/2004 10:21	1697.842	44.191	30.110	18.597
6/24/2004 10:31	1707.842	43.772	30.100	18.178
6/24/2004 10:41	1717.842	44.191	30.092	18.597
6/24/2004 10:51	1727.842	43.847	30.088	18.253
6/24/2004 11:01	1737.842	43.877	30.098	18.283
6/24/2004 11:11	1747.842	43.726	30.110	18.132
6/24/2004 11:21	1757.842	43.499	30.125	17.905
[redacted]/2004 11:31	1767.842	43.982	30.133	18.388
6/24/2004 11:41	1777.842	43.621	30.149	18.027
6/24/2004 11:51	1787.842	43.453	30.151	17.859
6/24/2004 12:01	1797.842	43.965	30.155	18.371
6/24/2004 12:11	1807.842	43.529	30.153	17.935
6/24/2004 12:21	1817.842	43.273	30.174	17.679
6/24/2004 12:31	1827.842	43.558	30.169	17.964
6/24/2004 12:41	1837.842	43.814	30.159	18.220
6/24/2004 12:51	1847.842	43.545	30.200	17.951
6/24/2004 13:01	1857.842	43.739	30.161	18.145
6/24/2004 13:11	1867.842	43.801	30.161	18.207
6/24/2004 13:21	1877.842	43.772	30.165	18.178
6/24/2004 13:31	1887.842	43.621	30.163	18.027
6/24/2004 13:41	1897.842	43.709	30.147	18.115
6/24/2004 13:51	1907.842	43.558	30.137	17.964
6/24/2004 14:01	1917.842	43.982	30.131	18.388
6/24/2004 14:11	1927.842	43.922	30.125	18.328
6/24/2004 14:21	1937.842	43.680	30.171	18.086
6/24/2004 14:31	1947.842	44.132	30.125	18.538
6/24/2004 14:41	1957.842	43.847	30.121	18.253
6/24/2004 14:51	1967.842	43.952	30.121	18.358
6/24/2004 15:01	1977.842	43.726	30.127	18.132
6/24/2004 15:11	1987.842	43.952	30.131	18.358
6/24/2004 15:21	1997.842	43.995	30.145	18.401
[redacted]/2004 15:31	2007.842	43.906	30.153	18.312
[redacted]/2004 15:41	2017.842	43.995	30.147	18.401

6/24/2004 15:51	2027.842	43.634	30.147	18.040
[redacted]/2004 16:01	2037.842	43.604	30.149	18.010
6/24/2004 16:11	2047.842	44.191	30.139	18.597
6/24/2004 16:21	2057.842	44.296	30.125	18.702
6/24/2004 16:31	2067.842	43.814	30.155	18.220
6/24/2004 16:41	2077.842	43.814	30.114	18.220
6/24/2004 16:51	2087.842	43.995	30.119	18.401
6/24/2004 17:01	2097.842	44.070	30.108	18.476
6/24/2004 17:11	2107.842	43.936	30.106	18.342
6/24/2004 17:21	2117.842	43.831	30.106	18.237
6/24/2004 17:31	2127.842	44.162	30.100	18.568
6/24/2004 17:41	2137.842	44.447	30.102	18.853
6/24/2004 17:51	2147.842	44.086	30.096	18.492
6/24/2004 18:01	2157.842	44.070	30.096	18.476
6/24/2004 18:11	2167.842	44.221	30.094	18.627
6/24/2004 18:21	2177.842	44.447	30.106	18.853
6/24/2004 18:31	2187.842	44.464	30.098	18.870
6/24/2004 18:41	2197.842	44.569	30.096	18.975
6/24/2004 18:51	2207.842	44.720	30.102	19.126
6/24/2004 19:01	2217.842	44.628	30.100	19.034
6/24/2004 19:11	2227.842	44.854	30.098	19.260
6/24/2004 19:21	2237.842	44.146	30.110	18.552
6/24/2004 19:31	2247.842	44.326	30.102	18.732
6/24/2004 19:41	2257.842	44.510	30.100	18.916
6/24/2004 19:51	2267.842	44.447	30.100	18.853
[redacted]/2004 20:01	2277.842	44.132	30.094	18.538
[redacted]/2004 20:11	2287.842	44.296	30.092	18.702
6/24/2004 20:21	2297.842	44.132	30.098	18.538
6/24/2004 20:31	2307.842	44.569	30.096	18.975
6/24/2004 20:41	2317.842	44.808	30.092	19.214
6/24/2004 20:51	2327.842	44.162	30.096	18.568
6/24/2004 21:01	2337.842	44.116	30.098	18.522
6/24/2004 21:11	2347.842	44.313	30.102	18.719
6/24/2004 21:21	2357.842	44.703	30.098	19.109
6/24/2004 21:31	2367.842	44.464	30.100	18.870
6/24/2004 21:41	2377.842	43.936	30.106	18.342
6/24/2004 21:51	2387.842	44.146	30.100	18.552
6/24/2004 22:01	2397.842	44.208	30.102	18.614
6/24/2004 22:11	2407.842	44.539	30.104	18.945
6/24/2004 22:21	2417.842	44.523	30.102	18.929
6/24/2004 22:31	2427.842	44.657	30.110	19.063
6/24/2004 22:41	2437.842	44.372	30.104	18.778
6/24/2004 22:51	2447.842	44.162	30.100	18.568
6/24/2004 23:01	2457.842	44.326	30.104	18.732
6/24/2004 23:11	2467.842	44.388	30.100	18.794
6/24/2004 23:21	2477.842	44.447	30.108	18.853
6/24/2004 23:31	2487.842	44.326	30.110	18.732
6/24/2004 23:41	2497.842	44.569	30.114	18.975
6/24/2004 23:51	2507.842	44.146	30.110	18.552
6/25/2004 0:01	2517.842	44.283	30.114	18.689
[redacted]/2004 0:11	2527.842	44.510	30.110	18.916
[redacted]/2004 0:21	2537.842	44.027	30.108	18.433

6/25/2004 0:31	2547.842	44.191	30.104	18.597
[redacted]/2004 0:41	2557.842	44.250	30.102	18.656
6/25/2004 0:51	2567.842	44.464	30.104	18.870
6/25/2004 1:01	2577.842	44.552	30.100	18.958
6/25/2004 1:11	2587.842	44.086	30.100	18.492
6/25/2004 1:21	2597.842	44.388	30.104	18.794
6/25/2004 1:31	2607.842	44.162	30.106	18.568
6/25/2004 1:41	2617.842	44.674	30.096	19.080
6/25/2004 1:51	2627.842	44.283	30.096	18.689
6/25/2004 2:01	2637.842	44.070	30.096	18.476
6/25/2004 2:11	2647.842	44.510	30.090	18.916
6/25/2004 2:21	2657.842	44.447	30.090	18.853
6/25/2004 2:31	2667.842	44.720	30.088	19.126
6/25/2004 2:41	2677.842	44.267	30.086	18.673
6/25/2004 2:51	2687.842	44.027	30.082	18.433
6/25/2004 3:01	2697.842	44.388	30.080	18.794
6/25/2004 3:11	2707.842	44.493	30.088	18.899
6/25/2004 3:21	2717.842	44.132	30.082	18.538
6/25/2004 3:31	2727.842	44.132	30.082	18.538
6/25/2004 3:41	2737.842	44.539	30.086	18.945
6/25/2004 3:51	2747.842	44.372	30.084	18.778
6/25/2004 4:01	2757.842	44.359	30.084	18.765
6/25/2004 4:11	2767.842	44.733	30.090	19.139
6/25/2004 4:21	2777.842	44.539	30.086	18.945
6/25/2004 4:31	2787.842	44.178	30.096	18.584
[redacted]/2004 4:41	2797.842	44.900	30.092	19.306
[redacted]/2004 4:51	2807.842	45.156	30.096	19.562
6/25/2004 5:01	2817.842	44.539	30.104	18.945
6/25/2004 5:11	2827.842	44.401	30.106	18.807
6/25/2004 5:21	2837.842	44.854	30.106	19.260
6/25/2004 5:31	2847.842	44.733	30.098	19.139
6/25/2004 5:41	2857.842	44.493	30.102	18.899
6/25/2004 5:51	2867.842	44.795	30.100	19.201
6/25/2004 6:01	2877.842	44.615	30.100	19.021
6/25/2004 6:07	2883.842	44.779	30.157	19.185

In-Situ Inc. Hermit 3000

Report generated: 6/28/2004 8:23:39
Report from file: C:\Win-Situ\Data\SN45674 2004-06-25 061658 WILBER-RECOVERY .bin
DataMgr Version 3.68

Serial number: 45674
Firmware Version 7.1
Unit name: HERMIT 3000

Test name: WILBER-RECOVERY

Test defined on: 6/25/2004 6:13:50
Test started on: 6/25/2004 6:16:58
Test stopped on: 6/25/2004 12:06:22
Test extracted on: 6/28/2004 8:12:24

Data gathered using Logarithmic testing
Maximum time between data points: 20 Minutes.
Number of data samples: 150

TOTAL DATA SAMPLES 150

Channel number [1]
Measurement type: Pressure
Channel name: Probe #1
Linearity: 0.3421
Scale: 104.3092
Offset: -0.0934
Warmup: 50
Specific gravity: 1
Mode: TOC
User-defined reference: 44.657 Feet H2O
Referenced on: test start
Pressure head at reference: 52.772 Feet H2O

Channel number [0]
Measurement type: Barometric Pressure
Channel name: Barometric
Linearity: 0
Scale: 0
Offset: 0
Warmup: 50

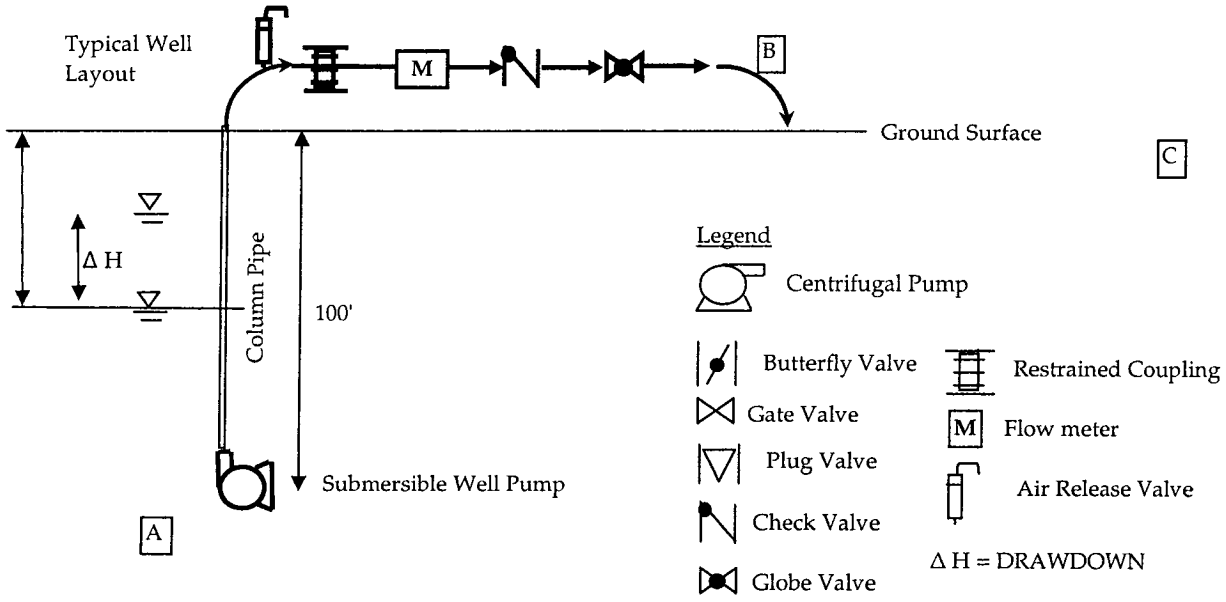
Date	Time	ET (min)	Chan[1] Meters H2O	Chan[1] Feet H2O	Chan[0] Inches Hg	Recovery (feet)
6/25/2004	6:16	0	13.615	44.657	30.163	19.057
6/25/2004	6:16	0.0112	11.453	37.566	30.169	11.966
6/25/2004	6:16	0.0223	12.706	41.676	30.165	16.076

6/25/2004 6:17	0.0335	12.895	42.296	30.165	16.696
[redacted]/2004 6:17	0.0447	12.578	41.256	30.165	15.656
6/25/2004 6:17	0.0558	12.192	39.990	30.165	14.390
6/25/2004 6:17	0.067	11.779	38.635	30.167	13.035
6/25/2004 6:17	0.0782	11.407	37.415	30.161	11.815
6/25/2004 6:17	0.0893	11.068	36.303	30.165	10.703
6/25/2004 6:17	0.1005	10.783	35.368	30.163	9.768
6/25/2004 6:17	0.1117	10.535	34.555	30.163	8.955
6/25/2004 6:17	0.1228	10.338	33.909	30.163	8.309
6/25/2004 6:17	0.134	10.168	33.351	30.163	7.751
6/25/2004 6:17	0.1452	10.057	32.987	30.165	7.387
6/25/2004 6:17	0.1563	9.952	32.643	30.163	7.043
6/25/2004 6:17	0.1675	9.787	32.101	30.167	6.501
6/25/2004 6:17	0.1787	9.63	31.586	30.163	5.986
6/25/2004 6:17	0.1898	9.552	31.331	30.163	5.731
6/25/2004 6:17	0.201	9.539	31.288	30.165	5.688
6/25/2004 6:17	0.2122	9.525	31.242	30.163	5.642
6/25/2004 6:17	0.2233	9.456	31.016	30.167	5.416
6/25/2004 6:17	0.235	9.387	30.789	30.163	5.189
6/25/2004 6:17	0.2475	9.323	30.579	30.165	4.979
6/25/2004 6:17	0.2607	9.263	30.383	30.163	4.783
6/25/2004 6:17	0.2747	9.249	30.337	30.165	4.737
6/25/2004 6:17	0.2895	9.235	30.291	30.161	4.691
6/25/2004 6:17	0.3052	9.249	30.337	30.161	4.737
6/25/2004 6:17	0.3218	9.254	30.353	30.163	4.753
6/25/2004 6:17	0.3395	9.268	30.399	30.161	4.799
[redacted]/2004 6:17	0.3582	9.286	30.458	30.163	4.858
6/25/2004 6:17	0.378	9.314	30.550	30.165	4.950
6/25/2004 6:17	0.399	9.318	30.563	30.163	4.963
6/25/2004 6:17	0.4212	9.323	30.579	30.165	4.979
6/25/2004 6:17	0.4447	9.314	30.550	30.165	4.950
6/25/2004 6:17	0.4695	9.291	30.474	30.165	4.874
6/25/2004 6:17	0.4958	9.314	30.550	30.163	4.950
6/25/2004 6:17	0.5238	9.231	30.278	30.163	4.678
6/25/2004 6:17	0.5535	9.231	30.278	30.165	4.678
6/25/2004 6:17	0.5848	9.194	30.156	30.165	4.556
6/25/2004 6:17	0.618	9.167	30.068	30.165	4.468
6/25/2004 6:17	0.6532	9.157	30.035	30.165	4.435
6/25/2004 6:17	0.6905	9.139	29.976	30.163	4.376
6/25/2004 6:17	0.73	9.116	29.900	30.165	4.300
6/25/2004 6:17	0.7718	9.098	29.841	30.163	4.241
6/25/2004 6:17	0.8162	9.084	29.796	30.165	4.196
6/25/2004 6:17	0.8632	9.056	29.704	30.167	4.104
6/25/2004 6:17	0.913	9.043	29.661	30.167	4.061
6/25/2004 6:17	0.9657	9.029	29.615	30.165	4.015
6/25/2004 6:17	1.0215	9.01	29.553	30.165	3.953
6/25/2004 6:18	1.0807	8.997	29.510	30.169	3.910
6/25/2004 6:18	1.1433	8.983	29.464	30.167	3.864
6/25/2004 6:18	1.2097	8.965	29.405	30.167	3.805
6/25/2004 6:18	1.28	8.951	29.359	30.167	3.759
[redacted]/2004 6:18	1.3545	8.932	29.297	30.167	3.697
[redacted]/2004 6:18	1.4335	8.919	29.254	30.169	3.654

6/25/2004 6:18	1.5172	8.905	29.208	30.169	3.608
[redacted]/2004 6:18	1.6057	8.891	29.162	30.169	3.562
6/25/2004 6:18	1.6995	8.877	29.117	30.167	3.517
6/25/2004 6:18	1.7988	8.864	29.074	30.169	3.474
6/25/2004 6:18	1.9042	8.85	29.028	30.169	3.428
6/25/2004 6:18	2.0157	8.836	28.982	30.169	3.382
6/25/2004 6:19	2.1338	8.822	28.936	30.167	3.336
6/25/2004 6:19	2.259	8.813	28.907	30.167	3.307
6/25/2004 6:19	2.3915	8.804	28.877	30.167	3.277
6/25/2004 6:19	2.532	8.785	28.815	30.171	3.215
6/25/2004 6:19	2.6808	8.781	28.802	30.171	3.202
6/25/2004 6:19	2.8383	8.767	28.756	30.131	3.156
6/25/2004 6:19	3.0052	8.818	28.923	30.123	3.323
6/25/2004 6:20	3.182	8.808	28.890	30.123	3.290
6/25/2004 6:20	3.3693	8.804	28.877	30.125	3.277
6/25/2004 6:20	3.5677	8.79	28.831	30.125	3.231
6/25/2004 6:20	3.7778	8.785	28.815	30.125	3.215
6/25/2004 6:20	4.0005	8.776	28.785	30.125	3.185
6/25/2004 6:21	4.2363	8.767	28.756	30.127	3.156
6/25/2004 6:21	4.4862	8.753	28.710	30.127	3.110
6/25/2004 6:21	4.7508	8.74	28.667	30.129	3.067
6/25/2004 6:21	5.0312	8.73	28.634	30.129	3.034
6/25/2004 6:22	5.328	8.717	28.592	30.129	2.992
6/25/2004 6:22	5.6425	8.707	28.559	30.129	2.959
6/25/2004 6:22	5.9757	8.698	28.529	30.129	2.929
6/25/2004 6:23	6.3285	8.684	28.484	30.129	2.884
[redacted]/2004 6:23	6.7023	8.675	28.454	30.129	2.854
6/25/2004 6:24	7.0983	8.666	28.424	30.129	2.824
6/25/2004 6:24	7.5177	8.643	28.349	30.129	2.749
6/25/2004 6:24	7.962	8.629	28.303	30.127	2.703
6/25/2004 6:25	8.4327	8.62	28.274	30.127	2.674
6/25/2004 6:25	8.9312	8.611	28.244	30.125	2.644
6/25/2004 6:26	9.4592	8.602	28.215	30.125	2.615
6/25/2004 6:26	10.0185	8.593	28.185	30.125	2.585
6/25/2004 6:27	10.611	8.583	28.152	30.123	2.552
6/25/2004 6:28	11.2385	8.574	28.123	30.123	2.523
6/25/2004 6:28	11.9033	8.56	28.077	30.119	2.477
6/25/2004 6:29	12.6075	8.551	28.047	30.117	2.447
6/25/2004 6:30	13.3533	8.547	28.034	30.117	2.434
6/25/2004 6:31	14.1433	8.537	28.001	30.114	2.401
6/25/2004 6:31	14.9802	8.528	27.972	30.114	2.372
6/25/2004 6:32	15.8667	8.515	27.929	30.11	2.329
6/25/2004 6:33	16.8057	8.505	27.896	30.112	2.296
6/25/2004 6:34	17.8003	8.501	27.883	30.112	2.283
6/25/2004 6:35	18.854	8.492	27.854	30.11	2.254
6/25/2004 6:36	19.97	8.478	27.808	30.112	2.208
6/25/2004 6:38	21.1522	8.473	27.791	30.108	2.191
6/25/2004 6:39	22.4043	8.469	27.778	30.108	2.178
6/25/2004 6:40	23.7308	8.459	27.746	30.106	2.146
6/25/2004 6:42	25.1358	8.45	27.716	30.106	2.116
[redacted]/2004 6:43	26.6242	8.441	27.686	30.106	2.086
[redacted]/2004 6:45	28.2007	8.436	27.670	30.104	2.070

6/25/2004 6:46	29.8705	8.423	27.627	30.104	2.027
[redacted]/2004 6:48	31.6393	8.354	27.401	30.169	1.801
6/25/2004 6:50	33.513	8.34	27.355	30.167	1.755
6/25/2004 6:52	35.4977	8.335	27.339	30.171	1.739
6/25/2004 6:54	37.6	8.386	27.506	30.125	1.906
6/25/2004 6:56	39.8268	8.386	27.506	30.127	1.906
6/25/2004 6:59	42.1857	8.381	27.490	30.129	1.890
6/25/2004 7:01	44.6843	8.368	27.447	30.129	1.847
6/25/2004 7:04	47.331	8.354	27.401	30.127	1.801
6/25/2004 7:07	50.1345	8.349	27.385	30.129	1.785
6/25/2004 7:10	53.1042	8.28	27.158	30.182	1.558
6/25/2004 7:13	56.2498	8.326	27.309	30.129	1.709
6/25/2004 7:16	59.5818	8.322	27.296	30.131	1.696
6/25/2004 7:20	63.1113	8.312	27.263	30.127	1.663
6/25/2004 7:23	66.8498	8.303	27.234	30.125	1.634
6/25/2004 7:27	70.81	8.299	27.221	30.123	1.621
6/25/2004 7:31	75.0048	8.29	27.191	30.121	1.591
6/25/2004 7:36	79.4482	8.28	27.158	30.117	1.558
6/25/2004 7:41	84.1548	8.207	26.919	30.178	1.319
6/25/2004 7:46	89.1403	8.262	27.099	30.125	1.499
6/25/2004 7:51	94.4212	8.262	27.099	30.137	1.499
6/25/2004 7:56	100.015	8.244	27.040	30.137	1.440
6/25/2004 8:02	105.9403	8.23	26.994	30.141	1.394
6/25/2004 8:09	112.2167	8.156	26.752	30.202	1.152
6/25/2004 8:15	118.865	8.211	26.932	30.153	1.332
[redacted]/2004 8:22	125.9072	8.202	26.903	30.159	1.303
[redacted]/2004 8:30	133.3667	8.193	26.873	30.163	1.273
6/25/2004 8:38	141.2682	8.175	26.814	30.167	1.214
6/25/2004 8:46	149.6378	8.17	26.798	30.157	1.198
6/25/2004 8:55	158.5035	8.156	26.752	30.163	1.152
6/25/2004 9:04	167.8945	8.138	26.693	30.165	1.093
6/25/2004 9:14	177.842	8.124	26.647	30.169	1.047
6/25/2004 9:25	188.3788	8.115	26.617	30.171	1.017
6/25/2004 9:36	199.54	8.106	26.588	30.182	0.988
6/25/2004 9:48	211.3627	8.087	26.525	30.178	0.925
6/25/2004 10:00	223.8858	8.064	26.450	30.202	0.850
6/25/2004 10:14	237.151	8.051	26.407	30.2	0.807
6/25/2004 10:28	251.2022	8.042	26.378	30.208	0.778
6/25/2004 10:43	266.086	8.019	26.302	30.222	0.702
6/25/2004 10:58	281.8517	8.009	26.270	30.228	0.670
6/25/2004 11:15	298.5515	7.973	26.151	30.235	0.551
6/25/2004 11:33	316.241	7.94	26.043	30.241	0.443
6/25/2004 11:51	334.9787	7.918	25.971	30.243	0.371

Client:	Dare County Water Department	Job No.	17952-37350
Project:	North RO Facility Wellfield	Date Checked	8/5/2004
Detail:	Wilbur Well Hydraulics	Checked By	CDM



KNOWNS:

1. The following are the specified conditions of service for the Wilbur well pump:

Q =	500	gpm
TDH =	236	ft
Max. Motor HP =	50	
Pump setting =	100 feet	BGS (below ground surface)

REQUIREMENTS:

A. Total Dynamic Head Calculation
B. Selected Pump Head Design Calculation

CALCULATIONS

A. Total Dynamic Head (TDH)

TDH is specified in the Project Manual. The following is the design TDH for the new well pump:

Required TDH =	**236 Feet**

B. Selected Pump Head Design Calculation

1. The County requested the design of the submersible well pump be based on 316L SS pumps as manufactured by Goulds.
2. Selected Pump will be a Goulds Model 7TNLC. Please refer to attached pump information for the following calculations:

Design Q = 500 gpm
TDH = 236 feet

From Single Stage Performance Curve at 500 gpm, single stage head is 60 feet.

No. Stages Required = TDH Required/Head per stage

236 feet/60 feet/stage

3.93 Stages

USE 4 Stages

Actual TDH/stage = 4 stages x 60 feet/stage

Actual TDH = 240 Feet

Motor Horsepower Required

$$\text{HP Required} = \frac{Q \times TDH}{3960 \times \text{pump efficiency}}$$

From Pump performance curve, pump efficiency at 500 gpm is approximately 72%

$$\frac{500 \text{ gpm} \times 240 \text{ feet}}{3960 \times 0.72}$$

HP Required = 42

HP Installed = 50

Discharge Pressure

Static Water Level = 22.5 feet (BGS)

Drawdown = 14.8 feet at 500 gpm based on Step Drawdown test of the new well.

TDH = 240 feet

$$\text{Discharge Pressure} = \frac{TDH - \text{Drawdown} - \text{Static Water Level}}{2.31}$$

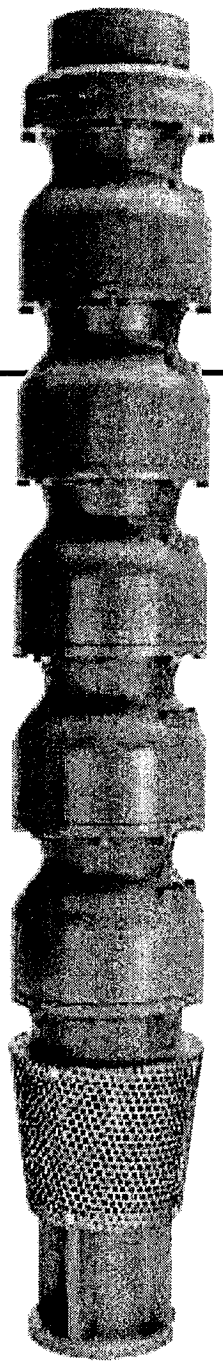
$$= \frac{240 - 14.8 - 22.5}{2.31}$$

Discharge Pressure = 87.7 PSI This is consistent with operating pressures of the original well and the currently operating wells within the system

GOULDS PUMPS

316 Stainless Steel Submersible Turbine Pumps

5"-11" Diameter For 6" and larger wells



SPECIFICATIONS – 3450 RPM

Model	Max. PSI	Max. TDH	Max. Stage	Operating Range GPM	Best Efficiency Range	Horsepower Range	Discharge Connections	Minimum Well Size
5CNLC	460	1063	18	60 – 180	115	5 – 30	4"	6"
5CNHC	450	1040	17	60 – 200	140	5 – 50	4"	6"
5TNLC	475	1097	20	80 – 225	175	5 – 30	4"	6"
5TNHC	460	1063	20	150 – 300	240	5 – 50	4"	6"
6CNLC	455	1051	13	100 – 225	160	5 – 40	4"	8"
6CNHC	450	1040	13	150 – 300	225	10 – 50	4"	8"
7CNLC	425	982	8	275 – 430	350	10 – 75	4",6"	8"
7CNHC	405	936	8	300 – 600	450	15 – 100	4", 6"	8"
7TNLC	412	952	8	300 – 650	550	10 – 75	4", 6"	8"
7TNHC	395	913	9	375 – 800	600	15 – 100	4", 6"	8"
9CNLC	495	1144	6	400 – 875	600	30 – 150	6"	10"
9CNHC	490	1132	6	550 – 1200	900	50 – 150	6"	10"
9TNLC	530	1224	7	700 – 1400	1050	40 – 150	6"	10"
9TNHC	462	1067	6	900 – 1700	1300	50 – 150	6"	10"
11CNLC	545	1259	4	500 – 1700	1200	75 – 150	6", 8"	12"

FEATURES

■ **Discharge Adapter:** Several discharge sizes available with NPT or Flanged design in 316 SS.

■ **Discharge Bearing:** Extra long sealed top bronze bearing insures positive shaft alignment and stabilization for extended life. Standard bronze bearings are of a superior quality Bismuth alloy to ensure tensile strength, yield strength, and percentage elongation results.

■ **Intermediate Bowl:** High efficiency design in cast 316 stainless steel.

■ **Impellers:** Designed for maximum efficiency with wide range hydraulic coverage.

■ **Thrust Washer:** Designed for extra margin of safety against possible momentary upthrust occurring at start-up.

■ **Intermediate Bowl Bearings:** Reliable long life Bismuth bronze bearing is standard. Optional rubber or other materials available.

■ **Taper Locks:** Accurately machined in 316SS to insure positive locking of impeller to pump shaft.

■ **Suction Inlet:** Contoured for smooth flow entrance. Protected by an oversized 304 stainless steel strainer to prevent entrance of damaging solids.

■ **Motor Adapter:** Cast 316 stainless steel for corrosion resistance, increased strength and positive motor alignment. Permits easy access to pump/motor coupling.

■ **Pump to Motor Coupling:** Large stainless steel coupling accurately matched for perfect alignment, balance and power transmission.

■ **Pump Shaft:** 316 stainless steel provides strength and excellent corrosion resistance. Ground and polished for smooth bearing surface.

■ **Powered for Continuous Operation:** All ratings are within the working limits of the motor manufacturer. Pump can be operated continuously without fear of damage to the motor.

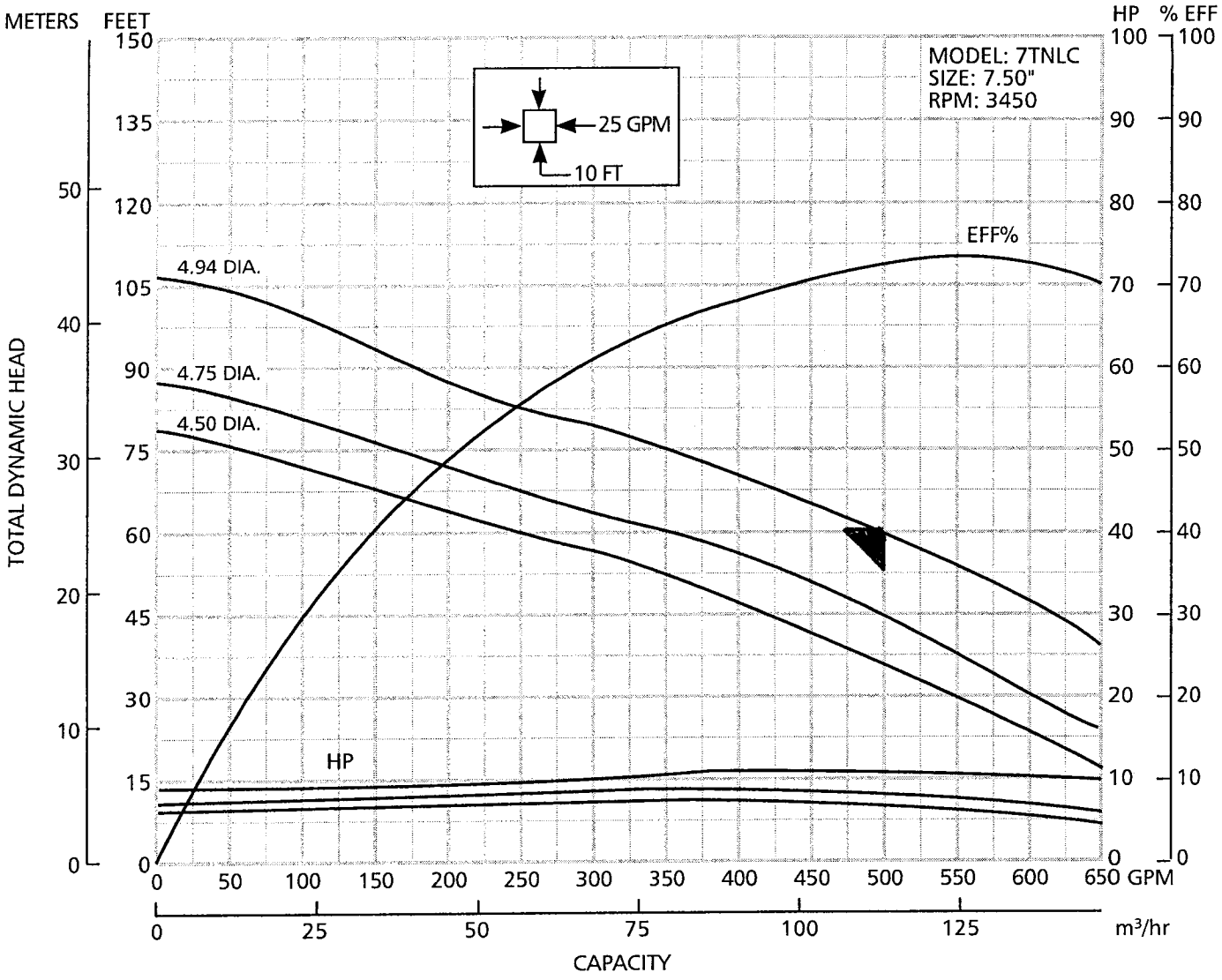
■ **Submersible Motor:**
- 316 stainless steel corrosion resistant construction
- 316 stainless steel splined shaft
- Hermetically sealed windings
- Anti-track self-healing resin system
- Water lubrication
- Kingsbury type thrust bearing
- Pressure equalizing diaphragm
- Sand fighter slinger
- UL 778 recognized.

Goulds Pumps

ITT Industries

Model 7TNLC 316 Stainless Steel Pump

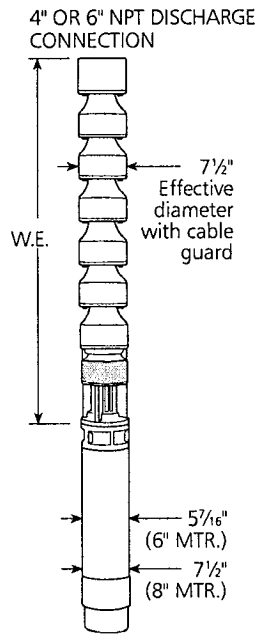
Single Stage Performance Curve



Characteristics based upon pumping clear non-aerated water.
Rating point only is guaranteed. Column and other losses not included.

SPECIFICATIONS

- **RPM:** 3450, 60 Hz
- **Max. O.D. with Cable Guard:** 7.5"
- **Minimum Well Size:** 8"
- **Available Discharge Size:** 4" & 6"
- **Available Motor Size:** 6", 8"
- **Bowl Connection:** Bolted
- **Impeller:** Enclosed Type
- **Bearing Material:** Bronze, other materials available.
- **Thrust Constant (K):** 4.50 lbs./ft.
- **Specific Speed:** 3684
- **Maximum Shutoff Head:** 412 PSI / 952 Feet
- **Maximum Number of Stages:** 8
- **Efficiency Correction:** 1 Stage deduct 3.0
  2 Stages deduct 2.0
  3 Stages deduct 1.0



Curves reflect typical performance, refer to factory for certification.

D/E Project Number: 17952-37853
CDM Job Number: 41798
Name of Project: Dare County Wellfield Expansion – Wells
Project Designation:
Name of Subcontractor or Material Supplier: Goulds Pumps
Referenced Contract Drawing #:
Referenced Specification Section: 11216
Name of Manufacturer: Goulds
Manufacturer Phone No.: Contact:
Description: Certified test for submersible pump
Location of use: Wilbur

ITT INDUSTRIES - GOULDS PUMPS - TURBINE OPERATION
PERFORMANCE TEST RESULTS

CUSTOMER: A.C. SCHULTES
P.O. NUMBER: 10505
PROJECT: TIM PRUIT SS/SUB
S.O. NUMBER: 482073
DATE: 0713/04

CONDITIONS

PUMP NUM:	1	SP. GR:	1.00	BOWL TDH:	236.0
PUMP TYPE:	VIS	VISC. SSU:	32	PUMP TDH:	0.0
PUMP MODEL:	7TNLC	WATER TEMP:F	73	REQ GPM:	500
STAGES:	4	WITNESSED:	N	MAX GPM:	650
IMP. MATL:	1203	MOTOR SER. #:	17-0021	EFFICIENCY:%	71.7
1ST IMP. DIA:	4.63	1ST IMP. QTY:	2	TEST RPM:	3450
2ND IMP. DIA:	4.93	2ND IMP. QTY:	2	TEST MOTOR:	60 HP
CUST RPM:	3472			TEST LINE:	4
CUST HP:	50	TESTED BY:	CHAD HAYDEN	CURVE RPM:	3472

READINGS DURING TEST

POINTS	1	2	3	4	5	6	7
PSI	188.8	174.3	155.3	128.9	106.2	87.0	67.4
DISCH. FT.	436.13	402.63	358.74	297.76	245.32	200.97	155.69
ELEV. FT.	5.00	5.00	5.00	5.00	5.00	5.00	5.00
VEL. FT.	0.00	0.02	0.10	0.27	0.49	0.67	0.84
PIPE FRIC.	0.00	0.00	0.01	0.03	0.05	0.06	0.08
TORQUE	58.10	56.09	56.13	57.29	59.53	58.30	55.37
INPUT KW	35.20	34.10	34.10	34.70	36.00	35.20	33.60
AMPERES	57.20	55.90	56.10	56.80	58.40	57.40	55.60
VIBRATION	-	-	-	-	-	-	-

TEST DATA RECORDED AT TEST RPM

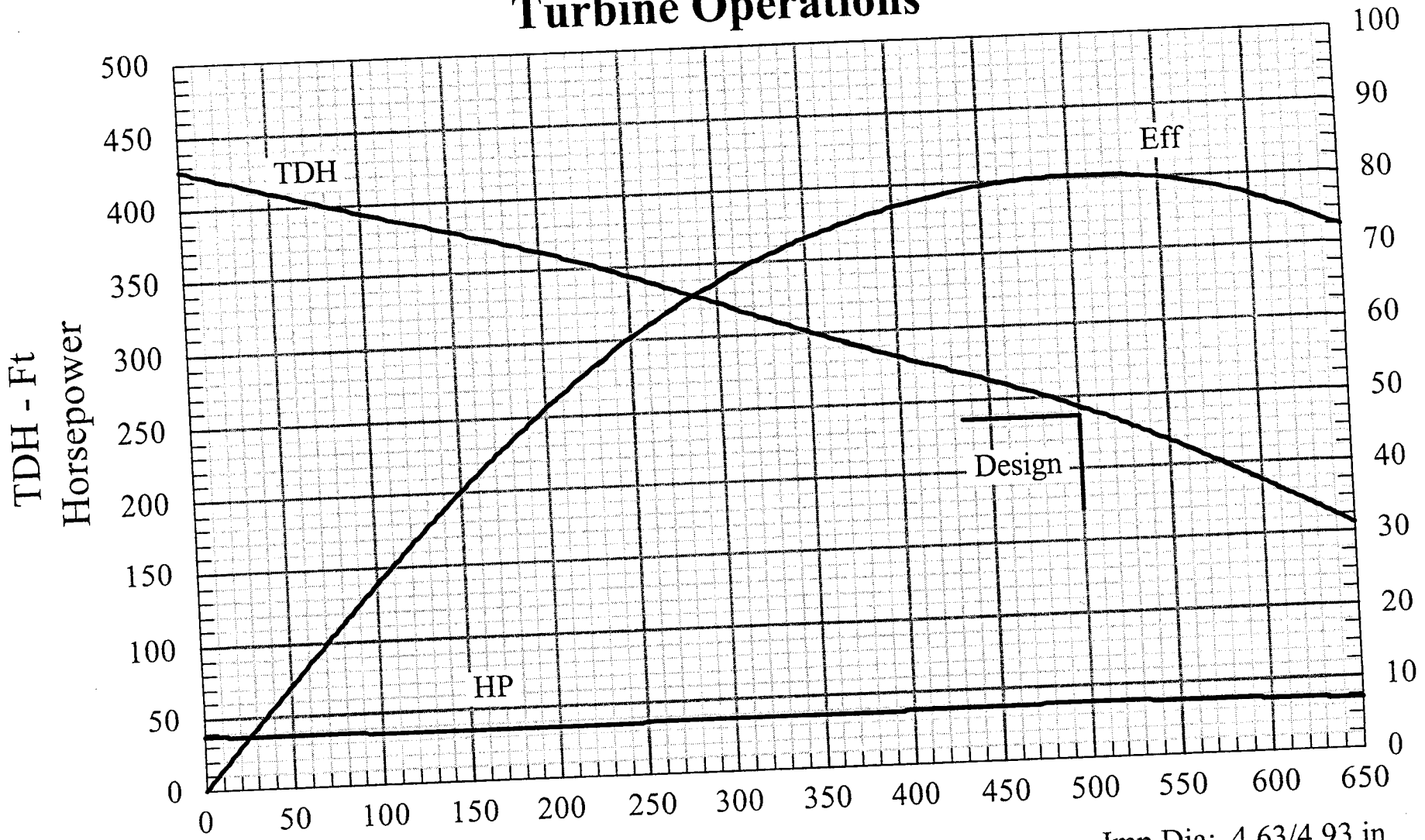
RPM	3529	3531	3531	3530	3527	3529	3533
GPM	0	102	234	376	508	590	661
TDH-FEET	441.1	407.7	363.9	303.1	250.9	206.7	161.6
PUMP HP	39.1	37.7	37.8	38.5	40.0	39.2	37.3
PUMP EFF	0.0	27.8	56.9	74.7	80.5	78.5	72.4

TEST DATA CONVERTED TO CUSTOMER RPM

RPM	3472	3472	3472	3472	3472	3472	3472
GPM	0	100	230	370	500	580	650
TDH-FEET	427.0	394.0	351.7	293.2	243.2	200.1	156.1
PUMP HP	37.2	35.9	35.9	36.7	38.2	37.3	35.4
PUMP EFF	0.0	27.8	56.9	74.7	80.5	78.5	72.4

Certified Test Results
By: Don Hollist
Title: ENGINEER
Date: July 14,2004

ITT - Goulds Pumps
Turbine Operations



SO: 482073
Model: 7TNLC/4

Imp Dia: 4.63/4.93 in
Speed: 3450RPM

Certified Test Results

By: Don Hollas
Title: Engineer
Date: July 14,2004

CDM
9311 College Parkway, Suite 1
Fort Myers, Florida 33919
tel: 239 432-9494
fax: 239 432-9453

August 9, 2004

Mr. Harry F. Bailey
Environmental Engineer
Public Water Supply Section
Department of Environment and Natural Resources
943 Washington Square Mall
Washington, NC 27889

Subject: Well Completion Statement for Production Well Wilbur
Dare County Water System
PWS ID 04-28-030, Dare County

Dear Mr. Bailey:

The purpose of this letter is to advise you that to the best of my knowledge, information and belief, the construction of Production Well Wilbur in Kill Devil Hills has been completed in accordance with the requirements of the State of North Carolina.

If you have any questions or I can be of further assistance, please do not hesitate to call either me (239/432-9494) or Gary St. John (757/873-8850).

Sincerely,

W. Scott Manahan, P.E.
Camp Dresser & McKee Inc.

cc: Robert Oreskovich - Dare County Water
Gary St. John - CDM

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BOOK 17 PAGE 18

DARE/3.8.2

NORTH CAROLINA
DARE COUNTY

THIS LEASE made this 13th day of May, 1985, by and between the TOWN OF KILL DEVIL HILLS, a Municipality chartered under the laws of the State of North Carolina hereinafter referred to as, "TOWN"; and the COUNTY OF DARE, a body politic of the State of North Carolina with its principal office and place of business in Manteo, North Carolina hereinafter referred to as "COUNTY";

W I T N E S S E T H:

THAT WHEREAS, the Town is the owner of certain properties described hereinafter and does desire to let and lease said property; and whereas the County does desire to accept as tenant said property upon the following terms and conditions and pursuant to the authorization for Inter-Governmental agreements contained in GS 160-A-274.

FIRST: The land which is the subject matter of this Lease is more particularly described as follows:

PARCEL ONE: Beginning at a stake or other marker situated on the Eastern margin of the drainage ditch right-of-way of the North Carolina Department of Transportation said point of beginning being in the Southwest corner of the original town hall site of Kill Devil Hills, said beginning point being located on a course of South 70 deg. 30 min. West a distance of 287.78 feet from a monument in the Western margin of U. S. Highway 158 Bypass, said reference point being the original Southeast corner of the Town of Kill Devil Hills Municipal property; and running thence from said beginning point South 19 deg. 30 min. West and along the Eastern margin of the Department of Transportation drainage ditch right-of-way a distance of 197 feet to a stake or other marker in and on the South line of property acquired by the Town from the Catherine D. Haskins Estate heirs by deed dated the 29th day of October, 1984 and duly recorded in Book 390, Page 393; and thence turning and running South 70 deg. 30 min. West and along the South line of the property so acquired by the Town, hereinabove referred to, a distance of 300 feet to a stake or other marker; and thence turning and running North 19 deg. 30 min. West a distance of 90 feet to the North line of the property acquired by the Town in the aforesaid deed and the South line of other Town property; and thence turning and running North 70 deg. 39 min. 42 sec. East and along the North line of said property in the South line of other Town property a distance of 300 feet to the original Southwest corner of the Town property, on the Eastern side of the DOT drainage easement, the point or place of beginning.

There is excluded from the foregoing description the rights of the State of North Carolina, Department of Transportation, in and to said fifty feet (50') drainage easement on the Easternmost parcel parcel of the lands hereinabove described. Said drainage easement being subject to culvert and use as an access area in accord with the rules and regulations of DOT.

Prepared by & return to: [illegible]

Post-it® Fax Note 7671 | Date | # of pages ▶ 7
To NORMA MILLS | From GREG LOY
Co./Dept. | Co.
Phone # | Phone #

PARCEL TWO: Beginning at a stake or other marker situated in the Southeast corner of the original Town Hall property on the Western margin of U. S. Highway 158 Bypass; and running thence in a Southerly direction along the Western margin of the aforesaid highway right-of-way South 19 deg. 27 min. 30 sec. East a distance of 50 feet to a stake or other marker; and thence turning and running South 70 deg. 30 min. West a distance of 287.30 feet to a stake or other marker in the Eastern margin of the DOT drainage easement; and thence turning and running North 19 deg. 30 min. West a distance of 50 feet to the original Southwest corner of said Town Hall property; thence turning and running North 70 deg. 30 min. East and along the South line of the original Town Hall property a distance of 287.30 feet to the Western margin of the right-of-way of U. S. Highway 158 Bypass, the point or place of beginning.

Said parcel of land being 50 feet in width and extending from the Western margin of U. S. Highway 158 Bypass to the parcel of land described hereinabove as Parcel One. Parcel Two shall be the subject of a non-exclusive easement in common for ingress and egress by each of the parties hereto from U. S. Highway 158 Bypass to their respective properties.

There is also conveyed as a part of this Leasehold, a privilege of use for antenna purposes, subject to the appropriate regulations relating to such use a water tower situated upon other properties of the Town which is a short distance North from the lands which are the subject matter of this Lease, together with an easement over and under the ground for the purpose of running antenna and antenna transmission lines from the structures of the County to said tower. The use of said water tower for antenna purposes shall at all times be in conformity with all rules and regulations of the Town and other appropriate regulatory bodies with respect to such tower, and shall not be in conflict with the use of said tower by the Town but shall be a subservient use to the use of the Town.

SECOND: TERM. This Lease shall continue until July 1, 2035 at which time said Lease may be renewed upon a mutual agreement between the parties as to the renewal therefor.

THIRD: RENTAL. The County shall pay the Town the sum of One Hundred Dollars ($100.00) upon the execution of this Agreement and One Hundred Dollars ($100.00) on the first day of July of each year of the term of this Lease.

FOURTH: PURPOSE OF LEASE. This Lease of land between the two governmental bodies is for the purpose of Dare County constructing a building and appurtenances to serve as a base of operations for an emergency medical vehicle center and for an emergency management center and for a communication center for the beach area of Dare County, and other governmental purposes.

At such time as the County ceases to utilize said property for any

governmental purpose compatible with the a by the Town of its adjoining property for a period of ninety (90) days, after the Town has given appropriate notice by registered mail to Dare County addressed to the chairman of its board of commissioners, then and in that event said Lease shall terminate and all buildings and improvements placed upon said property shall revert to the Town without further claim or right of the County in said premises.

FIFTH: PLANS FOR BUILDINGS AND ACCESS. It is understood and agreed by and between the parties, that the County shall follow all appropriate procedures of the Town for the application of, and construction of buildings upon said premises and the construction of hard surfaced access to the said parcel of land over and across the non-exclusive easement described in this Lease. All such construction shall be in accord with all appropriate regulations of Town and Town shall have an Easement in Common with the tenant for the utilization of such driveways, entranceways, as may be constructed upon said easement provided however that such use shall not unduly interfere in any way with the operation of the facilities of County upon said properties. A copy of the building permit and site plan for said construction shall be attached to and become a part of this Lease Agreement.

The Tenant, County, hereby agrees to save harmless Town from any and all liability arising out of or connected with in any way the operation of the County facilities upon said property which is the subject matter of this Lease.

SIXTH: TAXES. It is understood and agreed by and between the parties that said property is the property of a municipality, a non-tax payer, and there shall be no ad valorem taxes assessable to either party so long as the premises are used in accord with the terms of this Agreement.

SEVENTH: INSURANCE. It is understood and agreed that the County shall at its expense provide such insurance as is necessary for the protection of the Municipality and/or its employees.

IN WITNESS WHEREOF the Town of Kill Devil Hills by and through its Board of Commissioners has authorized the execution of this instrument by its Mayor and attested by its Town Clerk, all as authorized by the minutes of the Board of Commissioners on the 13th day of May 1985.

IN WITNESS WHEREOF Dare County by and through its Board of Commissioners has authorized the execution of this instrument by its Chairman and attested by its Clerk, all as authorized by the minutes of the Dare County Board of Commissioners on the 3rd day of June 1985.

Town Clerk

COUNTY OF DARE

By: _____
Chairman,
Board of County Commissioners

ATTEST:

_____
Clerk to Board of County Commissioners

NORTH CAROLINA
DARE COUNTY

I, _____, a Notary Public do hereby certify that Lowell M. Perry, Mayor, personally appeared before me and acknowledged the due execution of the foregoing instrument as authorized by the Kill Devil Hills Board of Commissioners. This 14th day of May, 1985.

(NOTARIAL SEAL)

_____
Notary Public

My Commission expires: _____

NORTH CAROLINA
DARE COUNTY

I, _____, a Notary Public do hereby certify that R. V. Owens, Jr., Chairman, personally appeared before me and acknowledged the due execution of the foregoing instrument as Chairman of the Dare County Board of Commissioners. This 14th day of June, 1985.

(NOTARIAL SEAL)

_____
Notary Public

My Commission expires: 2/19/89

The foregoing Certificate(s) of _____

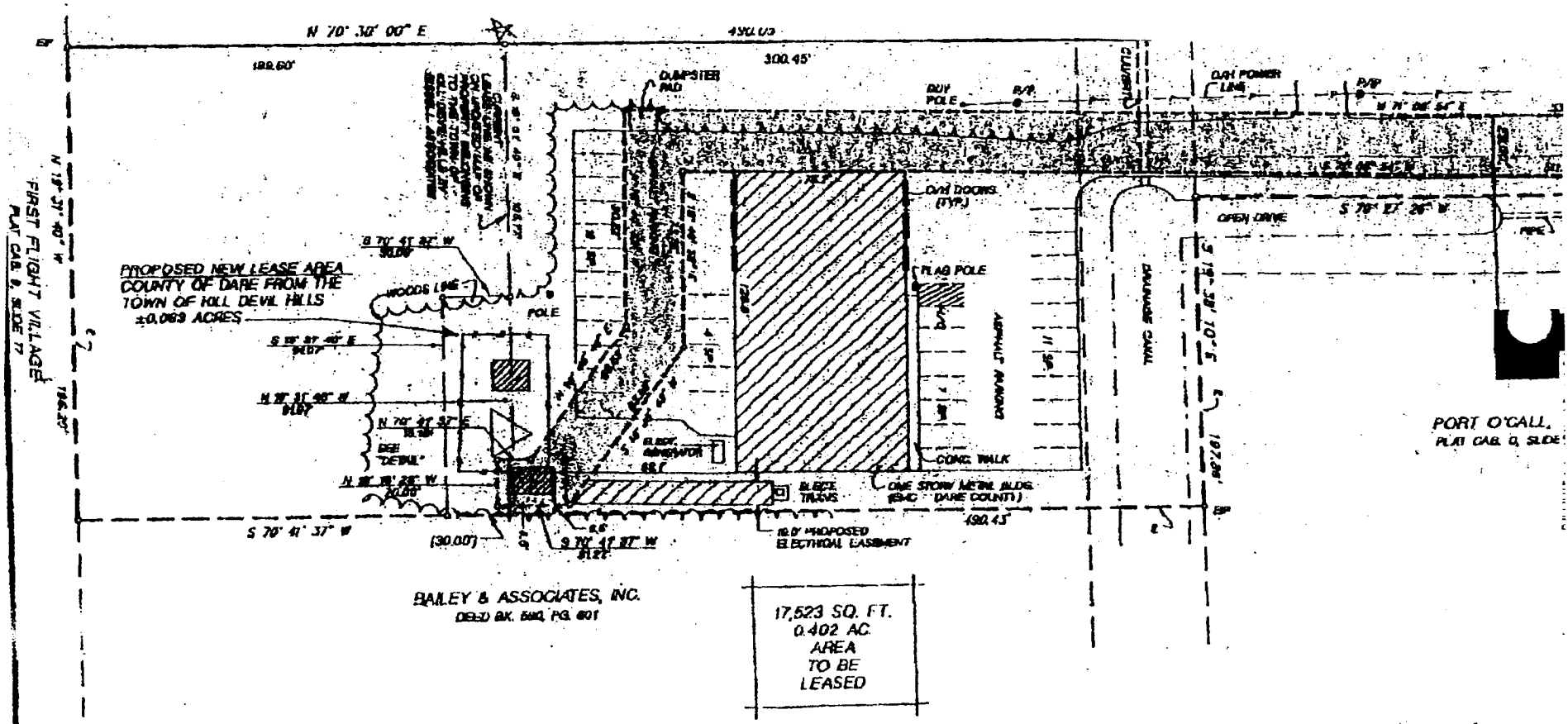
_____

are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

_____ REGISTER OF DEEDS FOR DARE COUNTY

By _____ Deputy/Assistant-Register of Deeds

[illegible]
Attorneys at Law
[illegible]



NOTES:

1. NO POINTS SET UNLESS OTHERWISE NOTED.
2. THIS PROPERTY IS LOCATED IN THE AE FLOOD ZONE BASE FLOOD ELEVATION = 9.00' COMMUNITY PANEL NUMBER 375 353 0902 C 5/2/93. THE PROPOSED BUILDING WILL BE AT OR GREATER THAN 9.00'.
3. NO WATER OR SANITARY SEWER IS REQUIRED FOR THE PROPOSED IMPROVEMENTS.
4. SQUARE FOOTAGE OF LAND DISTURBING ACTIVITY = 240 SQ. FT.
5. MINIMUM SIDE SETBACK = 8.0'
6. NO ADDITIONAL PARKING IS NEEDED.
7. THE PROPERTY FOR THE PROPOSED 25' INGRESS-EGRESS [illegible] PROPOSED BUILDING

envirochem
Analytical & Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax
EChemW@aol.com
NCDENR: DWQ Certificate #94, DLS Certificate #37729

NEW WELL INORGANIC CHEMICAL ANALYSIS

Note: All information must be supplied for plan review credit.

WATER SYSTEM ID #: _____ **County:** Dare

Name of Water System: Dare Co. Wilber Production

Sample Type: X Source for Plan Review

Location Where Collected: Well
(Note: Compliance sample MUST be collected at the entry point)

Location Code: _____

Collection Date	Collection Time
06/24/04 (MM/DD/YY)	09:00 AM (Specify AM or PM)

Collected By: Allen Jackson (Please Print)

Mail Results to (water system representative):
A.C. Schultes

3887 S. NC 41 **Phone #:** (____) _____

Wallace, NC 28466 **Fax #:** (____) _____

LABORATORY ID #: 37729 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
0100	Turbidity	001	0.10 ntu	☐	0.5 mg/L	N/A
1005	Arsenic	169	0.005 mg/L	X	____ mg/L	0.010 mg/L
1010	Barium	169	0.400 mg/L	X	____ mg/L	2.000 mg/L
1015	Cadmium	169	0.001 mg/L	X	____ mg/L	0.005 mg/L
1016	Calcium	169	0.001 mg/L	☐	30.3 mg/L	N/A
1017	Chloride	128	5.0 mg/L	☐	1496. mg/L	250.0 mg/L
1020	Chromium	169	0.020 mg/L	X	____ mg/L	0.100 mg/L
1022	Copper	169	0.050 mg/L	X	____ mg/L	1.300 mg/L
1024	Cyanide	154	0.040 mg/L	X	____ mg/L	0.200 mg/L
1025	Fluoride	107	0.100 mg/L	☐	0.2 mg/L	4.000 mg/L
1028	Iron	169	0.060 mg/L	☐	0.169 mg/L	0.300 mg/L
1030	Lead	125	0.003 mg/L	X	____ mg/L	0.015 mg/L
1031	Magnesium	169	1.0 mg/L	☐	57.4 mg/L	N/A
1032	Manganese	169	0.010 mg/L	X	____ mg/L	0.050 mg/L
1035	Mercury	103	0.0004 mg/L	X	____ mg/L	0.002 mg/L

*Note: Concentrations for Lead and Copper are action levels, not MCLs.

8454 4-4125

envirochem
Analytical & Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax
EChemW@aol.com
NCDENR: DWQ Certificate #94, DLS Certificate #37729

NEW WELL INORGANIC CHEMICAL ANALYSIS

(Continued)
Note: All information must be supplied for plan review credit.

WATER SYSTEM ID #: Wilber Production
Location Code: _____

Collection Date (MM/DD/YY)	Collection Time (Specify AM or PM)
06/24/04	09:00 AM

LABORATORY ID #: 37729

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1036	Nickel	169	0.100 mg/L	X	_____ mg/L	N/A
1040	Nitrate	109	1.00 mg/L	X	_____ mg/L	10.00 mg/L
1041	Nitrite	109	0.10 mg/L	X	_____ mg/L	1.00 mg/L
1045	Selenium	125	0.010 mg/L	X	_____ mg/L	0.050 mg/L
1050	Silver	169	0.05 mg/L	X	_____ mg/L	0.100 mg/L
1052	Sodium	169	1.0 mg/L	☐	1080. mg/L	N/A
1055	Sulfate	173	5.0 mg/L	☐	50. mg/L	250.0 mg/L
1068	Acidity	144	1.0 mg/L	☐	4.5 mg/L	N/A
1074	Antimony	125	0.003 mg/L	X	_____ mg/L	0.006 mg/L
1075	Beryllium	169	0.002 mg/L	X	_____ mg/L	0.004 mg/L
1085	Thallium	125	0.001 mg/L	X	_____ mg/L	0.002 mg/L
1095	Zinc	169	1.0 mg/L	X	_____ mg/L	5.0 mg/L
1905	Color	129	5 units	☐	9. mg/L	15 units
1915	Total Hardness	141	1.0 mg/L	☐	296. mg/L	N/A
1925	pH	135	N/A	N/A	7.98 Units	6.50 – 8.50 units
1924	Alkalinity	142	1.0 mg/L	☐	281. mg/L	N/A
1930	Total Dissolved Solids	160	10.0 mg/L	☐	2682. mg/L	500.0 mg/L

*Note: Concentrations for Lead and Copper are action levels, not MCLs.

	DATE: (MM/DD/YY)	TIME: (Specify AM or PM)
ANALYSES BEGUN:	06/24/04	04:00 PM
ANALYSES COMPLETED:	07/16/04	04:00 PM

Laboratory Log #: 8454 **Certified By:** Karen Hicks Julie Niemczura (Print and Sign Name)

COMMENTS: R.K. Highland Karen Hicks **REPORT #** 4-4125

envirochem
Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax
EChemW@aol.com
NCDENR: DWO Certificate #94. DLS Certificate #37729

TOC Requirements-Disinfection Byproduct Precursor Analysis

Note: All information must be supplied for compliance credit.

Water System ID#: ____ - ____ - ____ **County:** Dare

Name of Water System: Wilber Production Well

Sample Type: ☐ Source ☐ Treated X Special/Non -compliance

Location Where Collected: Well
(Note: sample MUST be collected from Maximum Chlorine Residence or Distribution sites)

Location Code: ____

Collection Date: 06/24/04 (MM/DD/YY)

Collection Time: 09:00 AM (Specify AM or PM)

Collected By: Allen Jackson

Mail Results to (water system representative):

A.C. Schultes of Carolina, Inc.

3887 S. NC 41

Wallace, NC 28466

Telephone No.(____) ____

Fax No. (____) ____

Responsible person's email: ____

Laboratory ID#: 37729 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)		LESS THAN R.R.L. (X)	QUANTIFIED RESULTS*						ALLOWABLE LIMIT
1927	Alkalinity	___	1.0	mg/L	☐	___	___	___	.	___	mg/L	N/A
2920	Total Organic Carbon (TOC)	175	1.0	mg/L	☐	___	___	2	.	6	mg/L	N/A
2919	Dissolved Organic Carbon	___	1.0	mg/L	☐	___	___	2	.	4	mg/L	N/A
2922	Ultraviolet Absorption 254 (UV254)	___	1.0	mg/L	☐	___	___	___	.	___	mg^{-1}	N/A

	DATE:	TIME:
Analysis Begun:	06/25/04	02:30 PM
Analysis Completed:	06/25/04	04:20 PM

Laboratory Log #: 8454

Certified By: Julie Niemczura (Print and Sign Name)

COMMENTS:

Bottle ID # R.K. Highland Report # 4-4125

envirochem (SM)
ANALYTICAL & CONSULTING CHEMISTS

Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 (Lab) • (910) 392-4424 (Fax)
EchemW@aol.com

NCDENR: DWQ CERTIFICATE #94, DLS CERTIFICATE #37729

Customer:

A.C. SCHULTES OF CAROLINA
3887 S. NC 41
Wallace, NC 28466
Attn: Bill Jefferys

Date of Report: July 20, 2004

Purchase Order #:

Report Number: 4-4125

REPORT OF ANALYSIS

Date Sampled: 06/24/04 **Report To:** Bill Jefferys

Sampled By: Client **Project :**

Wilber Production # 8454

Trihalomethane Formation Potential (THMFP)

Chlorine residual after incubation = 9.1 ppm Cl_2 from a 11.0 ppm dose

Chloroform µg/L	**= 0.89**
Bromoform µg/L	**= 44.79**
Chlorodibromomethane µg/L	**= 9.21**
Bromodichloromethane µg/L	**= 4.46**

TFP µg/L = 59.4

4 hour Chlorine Demand = 0.6 ppm Cl_2

HALOACETIC ACID FORMATION POTENTIAL

HAAFP Analysis

Monochloroacetic Acid µg/L	**= BQL**
Dichloroacetic Acid µg/L	**= 8.3**
Trichloroacetic Acid µg/L	**= BQL**
Monobromoacetic Acid µg/L	**= BQL**

TFP µg/L = 8.3

BQL = Below Quantitation Limit

Reviewed by R. K. Highland

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6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax EChemW@aol.com
NCDENR: DWO Certificate #94, DLS Certificate #37729

VOLATILE ORGANIC CHEMICALS ANALYSIS (VOCs)

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: _____ **County:** Dare

Name of Water System: Dare County Wilber Production

Sample Type: ☐ Entry Point X Special/Non-compliance

Location Where Collected: Well
(Note: Compliance samples MUST be collected at the Entry Point)

Location Code: _____

Collection Date	Collection Time
06/24/04 (MM/DD/YY)	09:00 AM (Specify AM or PM)

Collected By: Allen Jackson (Please Print)

Mail Results to (water system representative):

A.C. Schultes
3887 S. NC 41
Wallace, NC 28466

Phone #: (910) _____

Fax #: (910) _____

*NOTE: Please complete portion above double line on Page 2.

LABORATORY ID #: 37729 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2030	p-Isopropyltoluene	221	0.0005 mg/L	X	____ mg/L	N/A
2210	Chloromethane	221	0.0005 mg/L	X	____ mg/L	N/A
2212	Dichlorodifluoromethane	221	0.0005 mg/L	X	____ mg/L	N/A
2214	Bromomethane	221	0.0005 mg/L	X	____ mg/L	N/A
2216	Chloroethane	221	0.0005 mg/L	X	____ mg/L	N/A
2218	Fluorotrichloromethane	221	0.0005 mg/L	X	____ mg/L	N/A
2246	Hexachlorobutadiene	221	0.0005 mg/L	X	____ mg/L	N/A
2248	Naphthalene	221	0.0005 mg/L	X	____ mg/L	N/A
2378	1,2,4-Trichlorobenzene	221	0.0005 mg/L	X	____ mg/L	0.07 mg/L
2380	Cis-1,2-Dichloroethylene	221	0.0005 mg/L	X	____ mg/L	0.07 mg/L
2408	Dibromomethane	221	0.0005 mg/L	X	____ mg/L	N/A
2410	1,1-Dichloropropene	221	0.0005 mg/L	X	____ mg/L	N/A
2412	1,3-Dichloropropane	221	0.0005 mg/L	X	____ mg/L	N/A
2413	1,3-Dichloropropene	221	0.0005 mg/L	X	____ mg/L	N/A
2414	1,2,3-Trichloropropane	221	0.0005 mg/L	X	____ mg/L	N/A
2416	2,2-Dichloropropane	221	0.0005 mg/L	X	____ mg/L	N/A
2418	1,2,4-Trimethylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2420	1,2,3-Trichlorobenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2422	n-Butylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2424	1,3,5-Trimethylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2426	Tert-Butylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2428	Sec-Butylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2430	Bromochloromethane	221	0.0005 mg/L	X	____ mg/L	N/A
2941	Chloroform	221	0.0005 mg/L	X	____ mg/L	N/A

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours # 8454 Report # 4-4125

envirochem
Analytical & Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax EChemW@aol.com
NCDENR: DWO Certificate #94. DLS Certificate #37729

(VOLATILE ORGANIC CHEMICALS ANALYSIS (VOCs)

Note: All information must be supplied for compliance credit.continued)

WATER SYSTEM ID #: Wilber Production

Location Code: _____

Collection Date (MM/DD/YY)	Collection Time (Specify AM or PM)
06/24/04	09:00 AM

LABORATORY ID #: 37729

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED ABOVE R.R.L. (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2942	Bromoform	221	0.0005 mg/L	X	____ mg/L	N/A
2943	Bromodichloromethane	221	0.0005 mg/L	X	____ mg/L	N/A
2944	Chlorodibromomethane	221	0.0005 mg/L	X	____ mg/L	N/A
2955	Xylenes (Total)	221	0.0005 mg/L	X	____ mg/L	10.00 mg/L
2964	Dichloromethane	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2965	o-Chlorotoluene	221	0.0005 mg/L	X	____ mg/L	N/A
2966	p-Chlorotoluene	221	0.0005 mg/L	X	____ mg/L	N/A
2967	m-Dichlorobenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2968	o-Dichlorobenzene	221	0.0005 mg/L	X	____ mg/L	0.60 mg/L
2969	p-Dichlorobenzene	221	0.0005 mg/L	X	____ mg/L	0.075 mg/L
2976	Vinyl Chloride	221	0.0005 mg/L	X	____ mg/L	0.002 mg/L
2977	1,1,-Dichloroethylene	221	0.0005 mg/L	X	____ mg/L	0.007 mg/L
2978	1,1-Dichloroethane	221	0.0005 mg/L	X	____ mg/L	N/A
2979	Trans-1,2-Dichloroethylene	221	0.0005 mg/L	X	____ mg/L	0.10 mg/L
2980	1,2-Dichloroethane	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2981	1,1,1-Trichloroethane	221	0.0005 mg/L	X	____ mg/L	0.20 mg/L
2982	Carbon Tetrachloride	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2983	1,2-Dichloropropane	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2984	Trichloroethylene	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2985	1,1,2-Trichloroethane	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2986	1,1,1,2-Tetrachloroethane	221	0.0005 mg/L	X	____ mg/L	N/A
2987	Tetrachloroethylene	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2988	1, 1,2,2-Tetrachloroethane	221	0.0005 mg/L	X	____ mg/L	N/A
2989	Chlorobenzene	221	0.0005 mg/L	X	____ mg/L	0.10 mg/L
2990	Benzene	221	0.0005 mg/L	X	____ mg/L	0.005 mg/L
2991	Toluene	221	0.0005 mg/L	X	____ mg/L	1.00 mg/L
2992	Ethylbenzene	221	0.0005 mg/L	X	____ mg/L	0.70 mg/L
2993	Bromobenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2994	Isopropylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A
2996	Styrene	221	0.0005 mg/L	X	____ mg/L	0.10 mg/L
2998	n-Propylbenzene	221	0.0005 mg/L	X	____ mg/L	N/A

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours

	DATE:	TIME:
ANALYSES BEGUN:	07/02/04 (MM/DD/YY)	04:05 PM (Specify AM or PM)
ANALYSES COMPLETED:	07/13/04 (MM/DD/YY)	10:04 AM (Specify AM or PM)

Laboratory Log #: 8454

Certified By: Rick Crowell (Print and sign name)

COMMENTS: R.K. Highland Jennie Hicks

REPORT # 4-4125

envirochem
Analytical & Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax EChemW@aol.com
NCDENR: DWO Certificate #94, DLS Certificate #37729

PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS ANALYSIS (SOCs) PAGE 7 of 11

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: _____ **County:** Dare

Name of Water System: Dare County Wilber Production

Sample Type: ☐ Entry Point X Special/Non-compliance

Location Where Collected: Well
(Note: Compliance sample MUST be collected at the Entry Point.)

Location Code: _____

Collection Date	Collection Time
06/24/04 (MM/DD/YY)	09:00 AM (Specify AM or PM)

Collected By: Allen Jackson (Please Print)

Mail Results to (water system representative):

A.C. Schultes
3887 S. NC 41
Wallace, NC 28466

Phone #: (910) _____

Fax #: (910) _____

*NOTE: Please complete portion above double line on Page 2.

LABORATORY ID #: 37729 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2005	Endrin	210	0.00001 mg/L	X	_____ mg/L	0.002 mg/L
2010	Lindane	210	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2015	Methoxychlor	210	0.0001 mg/L	X	_____ mg/L	0.04 mg/L
2020	Toxaphene	210	0.001 mg/L	X	_____ mg/L	0.003 mg/L
2021	Carbaryl	235	0.004 mg/L	X	_____ mg/L	N/A
2022	Methomyl	235	0.004 mg/L	X	_____ mg/L	N/A
2031	Dalapon	203	0.001 mg/L	X	_____ mg/L	0.2 mg/L
2035	Di(2-ethylhexyl)adipate	225	0.0006 mg/L	X	_____ mg/L	0.4 mg/L
2036	Oxamyl(vydate)	235	0.002 mg/L	X	_____ mg/L	0.2 mg/L
2037	Simazine	210	0.00007 mg/L	X	_____ mg/L	0.004 mg/L
2040	Picloram	203	0.0001 mg/L	X	_____ mg/L	0.5 mg/L
2041	Dinoseb	203	0.0002 mg/L	X	_____ mg/L	0.007 mg/L
2042	Hexachlorocyclopentadiene	210	0.0001 mg/L	X	_____ mg/L	0.05 mg/L
2043	Aldicarb Sulfoxide	235	0.0005 mg/L	X	_____ mg/L	N/A
2044	Aldicarb Sulfone	235	0.0008 mg/L	X	_____ mg/L	N/A
2045	Metolachlor	210	0.0008 mg/L	X	_____ mg/L	N/A
2046	Carbofuran	235	0.0009 mg/L	X	_____ mg/L	0.04 mg/L
2047	Aldicarb	235	0.0005 mg/L	X	_____ mg/L	N/A
2050	Atrazine	210	0.0001 mg/L	X	_____ mg/L	0.003 mg/L
2051	Alachlor	210	0.0002 mg/L	X	_____ mg/L	0.002 mg/L
2065	Heptachlor	210	0.00004 mg/L	X	_____ mg/L	0.0004 mg/L

* Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours. # 8454 4-4125

envirochem
Analytical & Consulting Chemists

Environmental Chemists, Inc.
6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax EChemW@aol.com
NCDENR: DWO Certificate #94, DLS Certificate #37729

PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS ANALYSIS (SOCs) PAGE 8 of 11

(continued)
Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: Wilber Production
Location Code: _____

Collection Date (MM/DD/YY)	Collection Time (Specify AM or PM)
06/24/04	09:00 AM

LABORATORY ID #: 37729

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED ABOVE R.R.L. (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2066	3-Hydroxycarbofuran	235	0.004 mg/L	X	_____ mg/L	N/A
2067	Heptachlor Epoxide	210	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2070	Dieldrin	210	0.0002 mg/L	X	_____ mg/L	N/A
2076	Butachlor	210	0.008 mg/L	X	_____ mg/L	N/A
2077	Propachlor	210	0.006 mg/L	X	_____ mg/L	N/A
2105	2,4-D	203	0.0001 mg/L	X	_____ mg/L	0.07 mg/L
2110	2,4,5-TP (Silvex)	203	0.0002 mg/L	X	_____ mg/L	0.05 mg/L
2274	Hexachlorobenzene	210	0.0001 mg/L	X	_____ mg/L	0.001 mg/L
2298	Di(2-ethylhexyl)phthalate	225	0.00132 mg/L	X	_____ mg/L	0.006 mg/L
2306	Benzo(a)pyrene	225	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2326	Pentachlorophenol	203	0.00004 mg/L	X	_____ mg/L	0.001 mg/L
2356	Aldrin	210	0.0002 mg/L	X	_____ mg/L	N/A
2383	PCB's	210	0.0001 mg/L	X	_____ mg/L	0.0005 mg/L
2440	Dicamba	203	0.001 mg/L	X	_____ mg/L	N/A
2595	Metribuzin	210	0.0008 mg/L	X	_____ mg/L	N/A
2931	DBCP	219	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2946	Ethylene Dibromide (EDB)	219	0.00001 mg/L	X	_____ mg/L	0.00005 mg/L
2959	Chlordane	210	0.0002 mg/L	X	_____ mg/L	0.002 mg/L

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	06/30/04 (MM/DD/YY)	07:00 AM (Specify AM or PM)
ANALYSES COMPLETED:	07/07/04 (MM/DD/YY)	07:00 AM (Specify AM or PM)

Laboratory Log #: 8454
Certified By: Jim Pittman (Print and sign name) Jim Pittman

COMMENTS: R.K. Hayland Jessica Hicks

REPORT # 4 – 4125

02040279 3

EMSL Analytical, Inc.
231 Langview Dr.
Kernersville, NC 27284
(336) 992-1025

ASBESTOS ANALYSIS

Note: All information must be supplied for compliance cases.

WATER SYSTEM ID #: ____-____-____ County: Dare

Name of Water System: #8454 Willey Production

Sample Type: ☐ Distribution ☐ Entry Point ☒ Special/Non-compliance

Location Where Collected: _____

Location Code: _____

Collected By: client (Print Name)

Collection Date (MM/DD/YY)	Collection Time (Specify AM or PM)
06/24/04	9:00 AM

Mail Results to (water system representative):

Environchem
6602 Windmill Way
Wilm NC 28405

Phone #: 910-392-0223

Fax #:

LABORATORY ID #: 37766 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L) (X)	QUANTIFIED RESULTS [1]	ALLOWABLE LIMIT
1791	Chrysotile	172	0.2 MFL	☒	<0.18 / 7 MFL	7.0 MFL
1792	Amphibole	172	0.2 MFL	☒	<0.18 / 7 MFL	7.0 MFL
1094	Total Asbestos	172	0.2 MFL	☒	<0.26 / 7 MFL	7.0 MFL

Notes: [1] MFL = Million Fibers per Liter > 10 μm.
[2] If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE: (MM/DD/YY)	TIME: (Specify AM or PM)
ANALYSES REGUN:	7/19/04	7:08 PM
ANALYSES COMPLETED:	7/19/04	7:18 PM

Laboratory Log #: 8454 Certified By: Joseph M. McGee Joseph M. McGee (Print and sign name)

R# 4-4125

COMMENTS: _____

Laboratory should Mail Results to:
Public Water Supply Section, Attn: Data Entry, 1634 Mail Service Center, Raleigh, NC 27699-1634
Fax: 919.715.6637

Florida Radiochemistry Services, Inc.

Contact: Michael J. Naumann
5456 Hoffner Ave., Suite 201 Orlando, FL 32812
Phone: (407) 382-7733 Fax: (407)382-7744

RADIOLOGICAL ANALYSIS

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: ___-___-___ **County:** Dare

Name of Water System: #8454 Wilbex Production

Sample Type: ☐ Distribution ☐ Entry Point ☐ Composite ☒ Special/Non-compliance

Mail Results to (system representative): Envirochem

Telephone #: (___) ________

Fax #: (___) ________

Collection Data

Period	Date (MM/DD/YY)	Time (Specify AM or PM)	Loc. Code	Sample Location	Collected By
Single or 1st Qtr	06/24/04	7:00 AM			client
2nd Qtr	__/__/__	__:__ __M			
3rd Qtr	__/__/__	__:__ __M			
4th Qtr	__/__/__	__:__ __M			

LABORATORY ID #: 1 2 7 0 9 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	COUNTING ERROR	ALLOWABLE LIMIT
4000	Gross Alpha ✓	4 3 5	3 pCi/L	☒	<7.8 pCi/L	4.1	15 pCi/L
4004	Radon	N/A	100 pCi/L	☐	___.__ pCi/L		N/A
4006	Uranium ✓	4 5 6	2 pCi/L	☒	___.__ pCi/L	0.8	20.1 pCi/L
4010	Combined Radium	N/A	N/A	N/A	___.__ pCi/L		5 pCi/L
4020	Radium 226 ✓	4 4 6	1 pCi/L	☒	___.__ pCi/L	0.2	3 pCi/L
4030	Radium 228 ✓	4 5 2	1 pCi/L	☒	___.__ pCi/L	0.7	2 pCi/L
4100	Gross Beta ✓	4 3 5	4 pCi/L	☐	55.0 pCi/L	5.1	50 pCi/L
4102	Tritium	N/A	1,000 pCi/L	☐	___.__ pCi/L		20,000 pCi/L
4172	Strontium 89	N/A	10 pCi/L	☐	___.__ pCi/L		N/A
4174	Strontium 90	4 2 5	2 pCi/L	☐	___.__ pCi/L		8 pCi/L
4264	Iodine 131	N/A	1 pCi/L	☐	___.__ pCi/L		N/A
4270	Cesium 134	N/A	10 pCi/L	☐	___.__ pCi/L		N/A

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	07/02/04 (MM/DD/YY)	09:30 AM (Specify AM or PM)
ANALYSES COMPLETED:	07/15/04 (MM/DD/YY)	09:00 AM (Specify AM or PM)

Laboratory Log #: 0406218-04 Certified By: Mike Naumann / M Naumann (Printed/Sign Name)

COMMENTS: ________

12-31-03 #8454 **REPORT #** 4-4125

ENVIRONMENTAL CHEMISTS, INC

Analytical & Consulting Chemists

NCDENR: DWQ Certificate #94, DLS Certificate #37729

6602 Windmill Way
Wilmington, NC 28405
Phone: (910) 392-0223
Fax: (910) 392-4424
Email: EchemW@aol.com

pg 11 of 11

Sample Collection and Chain of Custody

Client: A. C. Schultes

P.O.# M-10663

Collected By: Allen Jackson

Report No: 4M161 4-4125

Sample Type: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge Other:

Sample Identification	LAB ID NUMBER	Collection DATE	Collection TIME	Collection TEMP	Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	PRESERVATION NONE	HCL	H_2SO_4	HNO_3	NaOH	THIO	OTHER	ANALYSIS REQUESTED
Orre county Wilbar Production	8454 A	6-24-04	9:00 am			C	P									New Well ✓
						G	G		X							Inorganics, Asbestos ✓
	B					C	P									
						G	G					X				Radiological ✓ Metals ✓
	C					C	P									
						G	G						X			Cyanide ✓
	D					C	P									
						G	G				X					Nitrate ✓
	E					C	P									
						G	G		X							THM/HAA5 FP ✓
	F					C	P									
						G	G							X		504, 515 ✓
	G					C	P									
						G	G			X						508, 525, VOC ✓
	H					C	P									
						G	G								NH4	531 ✓
	I					C	P									
						G	G				X					Total organic carbon TOC ✓
						C	P									
						G	G		X							~~TOC~~ DOC ✓ Dissolved organic carbon

Transfer	Relinquished By:	Date/Time	Received by:	Date/Time
1.	Allen Jackson	6-24-04 10:15 am	Terri Creef	6/24/04 10:15 am
2.				

Temperature when Received: 1.7°C Accepted: ✓ Rejected: Resample Requested:

Delivered By: UPS Received By: R. K. Highland Date: 6/25/04 Time: 11:30A

Comments: