GWIS040

GW170010-03

Coded By 03/86 10/95
Checked By 12-22-96
Entered By
Date 1/96

U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
MISSISSIPPI DISTRICT

E-Log No. 46
County DESOTO
Agency

Well No. F99

WELL RECORD

Horn Lake Quad

Agency Code: USGS
Site Id: 345163120910101111210111
Project No.:
Station Name: FOR PRIM HORN LAKE W WA
Latitude: 34516321
Longitude: 0910101111124
Lat/Long Ac.: S (F) T M
Dist:
State:
County: 033
Land Net: NW SW NE SEC 12 T 1S R 8W
Location Map: HORN LAKE
Altitude: 345
Met/Meas: A L (M)
Accuracy: 5
Hydrologic Unit: 08010112
Agency Use: A (P)
Date Inventoried:
Station Type: W
Data Type:
Instru.:
Remarks:
Relia.: C L M (U)
WA Well #3

Date of Construction: 03/25/1986
Well Use: W
Water Use: P
Primary Aquifer: 124SPRT
Hole Depth: 1483
Well Depth: 1478
Water Level: 132
Water Level Date: 03/25/1986
Method:
Status:
Source: D

CONSTRUCTION DATA
R=58 T=A 723#1
Construction Date: 03/25/1986
Contractor: 12151
Name: Wilson
Method: W
Finish: G

CONSTRUCTION CASING DATA
R=76 T=A 725#1 59#1 Top/Casing: 101 Bot/Casing: 1412 Diameter: 12
R=76 T=A 725#2 59#1 Top/Casing: 3571 Bot/Casing: 1417 Diameter: 8

CONSTRUCTION OPENINGS DATA
R=82 T=A 726#1 59#1 Top/Depth: 1417 Bot/Depth: 1478 Diameter: 8 Type: S Length: Width: 010401
R=82 T=A 726#2 59#1 Top/Depth: Bot/Depth: Diameter: Type: Length: Width:

CONSTRUCTION LIFT DATA
R=42 T=A 254#1 Lift Type: T Date: 03/25/1986 Intake:
Power: E H.P: 10 Serial No.:

MISCELLANEOUS OWNER DATA
R=158 T=A 718#1 Date of Ownership: 03/25/1986 Owner Name: HORN LAKE W WA

MISCELLANEOUS OTHER ID DATA
E-Log No.
Assigner: WSS

MISCELLANEOUS GW DATA

R=192	T=A	738#1	Date of Measurement 193	Aquifer Sampled 195	Temp 196#00010	Value 197
R=192	T=A	738#2	Date of Measurement 193	Aquifer Sampled 195	Sp Cond 196#00095	Value 197
R=192	T=A	738#3	Date of Measurement 193	Aquifer Sampled 195	pH 196#00400	Value 197

MISCELLANEOUS LOGS DATA

R=198	T=A	739#1	Log Type 199 E	Beg. Depth 200 0	End Depth 201 1482
R=198	T=A	739#1	Log Type 199 D	Beg. Depth 200 0	End Depth 201 1483

MISCELLANEOUS NETWORK DATA 706 = QW WL WD *

R=114	T=A	730#1	Beg. Year 115	End Year 116	120=A	Agency Source 117#	Freq. 119
R=121	T=A	730#2	Beg. Year 115	End Year 116	Agency Source 117	Freq. 118	

MISCELLANEOUS REMARKS DATA

R=183	T=A	311#1	Date of Remarks 184	Remarks 185

DISCHARGE DATA

R=146	T=A	Pump/Flow 147#1	Date 148=0131/1251/1198161	Type 703	Discharge 150 15000	Sp. Capacity 272

GEOHYDROLOGIC DATA

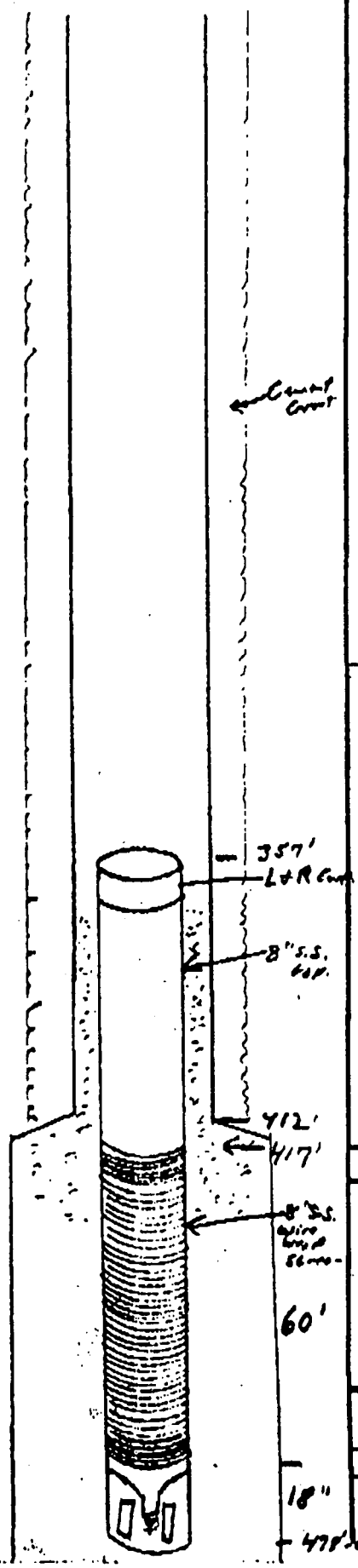
R=90	T=A	721#1	Depth Top 91	Depth Bot. 92	Unit Id 93 112415PIRIT	304

HYDRAULIC DATA

R=98	T=A	790#1	Unit Tested 100	103

DEPTH	STRATUM	
20	20	Red Clay
27	37	Gravel
32	5	Yellow Sand
39	7	Gravel
62	3	White Clay
72	10	Sand
129	57	Blue Clay
133	4	Sand
140	7	Sand & Clay Streaks
200	60	Clay with Gravel
203	3	Sand & Clay
243	40	Clay with Gravel
274	31	Blue Clay
294	20	Sand
295	1	Clay
329	34	Sand - White
343	14	Clay
356	13	Clay & Sand
393	37	White Sand
400	7	Sand & Clay
411	11	White Clay
483	72	White Sand (Coarse)

DRAWING OF THE WELL



Municipal - Industrial Wells | Complete Repair Service

Pumping Equipment | Chemical Treating

WILSON'S INC

NEW CASTLE
RT. 8, WHITEVILLE, TENN. 38075
Ph. 901-254-8010

DeSoto Co

F-99

WELL CONSTRUCTION DATA

CONTRACT NO. _____ - _____

OUR WELL NO 1 THEIR WELL NO. 3 IN TEST HOLE NO. 1

LOCATION OF THE WELL Horn Lake Water Assn Plant - Country Rd

INSTALLED FOR Horn Lake Water Assn

ADDRESS CITY Horn Lake COUNTY DeSoto STATE Miss

SEC 2 T 2 R 8

WELL DATA

STARTED WELL Nov 26, 1956 AND COMPLETED _____ 19____

TOTAL DEPTH 478'6" ELEVATION _____ STATIC WATER LEVEL 132'

LENGTH SURFACE CASING — SIZE — THICKNESS —

CEMENTED WITH — SACKS CEMENT TYPE PACKER —

LENGTH WELL CASING 412 SIZE 12 WEIGHT _____

CEMENTED WITH 366 SACKS CEMENT TYPE PACKER —

INNER CASING LENGTH 60 SIZE 8" WEIGHT _____

WITH 4 x 2" GUIDES LOCATED 405' & 360' TYPE SACKOFF None

LEAD SEAL — BACKPRESSURE VALVE Yes GUIDE Yes

WELL [illegible] 409 SIZE 8" LENGTH 60 OPENING .040

TYPE [illegible] — WITH Welded CONNECTIONS

SIZE HOLE DRILLED FOR SURFACE CASING _____ WITH _____

SIZE HOLE DRILLED FOR WELL CASING 16" WITH Roller Hole Opener

SIZE HOLE DRILLED FOR STRAINER 24" WITH Under Reamer

YARDS OF GRAVEL USED 8 HOW PLACED Trimmie Line

HOW WAS WELL DEVELOPED Air

NOTES: _____

RIG USED Cyclone Mud Rotary DRILLER Sam Smith - Johnson

GENERAL

PURPOSE FOR WHICH THIS WATER IS USED Water Dist.

TEMPERATURE _____ IS WATER CLEAN Yes CAPACITY _____

SAND — HARDNESS _____ PH _____ IRON _____ N & CL _____

TYPE TREATMENT USED _____

IS THERE A DERRICK OVER THE WELL — HEIGHT — TYPE —

CAP [illegible] Yes

PUMP HOUSE — SIZE HATCH —

REMARKS _____

SIGNED: Rodney D. Wilson

RMATION LOG OF THE WELL

WILSON'S INC
264-8010
NEW CASTLE
RT. 8. WHITEVILLE, TENN. 38078

STARTED TEST HOLE Feb. 3 19 86 FINISHED Feb 7 19 86 TEST HOLE NUMBER 1

LOCATION Horn Lake Water Assn. SEC ____ TS ____ RANGE ____ ELEVATION ____

TOTAL DEPTH	THICKNESS EACH STRATUM	FORMATION
20	20	Red Clay
47	27	Gravel
52	5	Yellow Sand
59	7	Gravel
62	3	White Clay
72	10	Sand
129	57	Blue Clay
133	4	Sand
140	7	Sand w/Clay Streaks
200	60	Clay White - Green
203	3	Sand & Clay
243	40	Clay White & Green
274	31	Blue Clay
294	20	Sand
295	1	Clay
329	34	Sand - White
343	14	Clay
356	13	Clay & Sand
393	37	White Sand
400	7	Sand & Clay
411	11	White Clay
483	72	White Sand (Coarse)

TOTAL

Pos
To
Co
Pl
Fl

MUD PIT SIZE 6 FT. X X FT. X 5 FT. DEEP
TYPE BIT USED TO CUT SAND Drag
SIZE OF TEST HOLE THROUGH SAND 12"
TYPE OF BIT USED TO CUT UPPER INFORMATIONS Hole Opener SIZE ____
TYPE MUD PUMP USED 4X3 Mission Centr.
DRILLING PRESSURE IN SAND ____
TYPE OF MUD USED Bexid Rock Gel

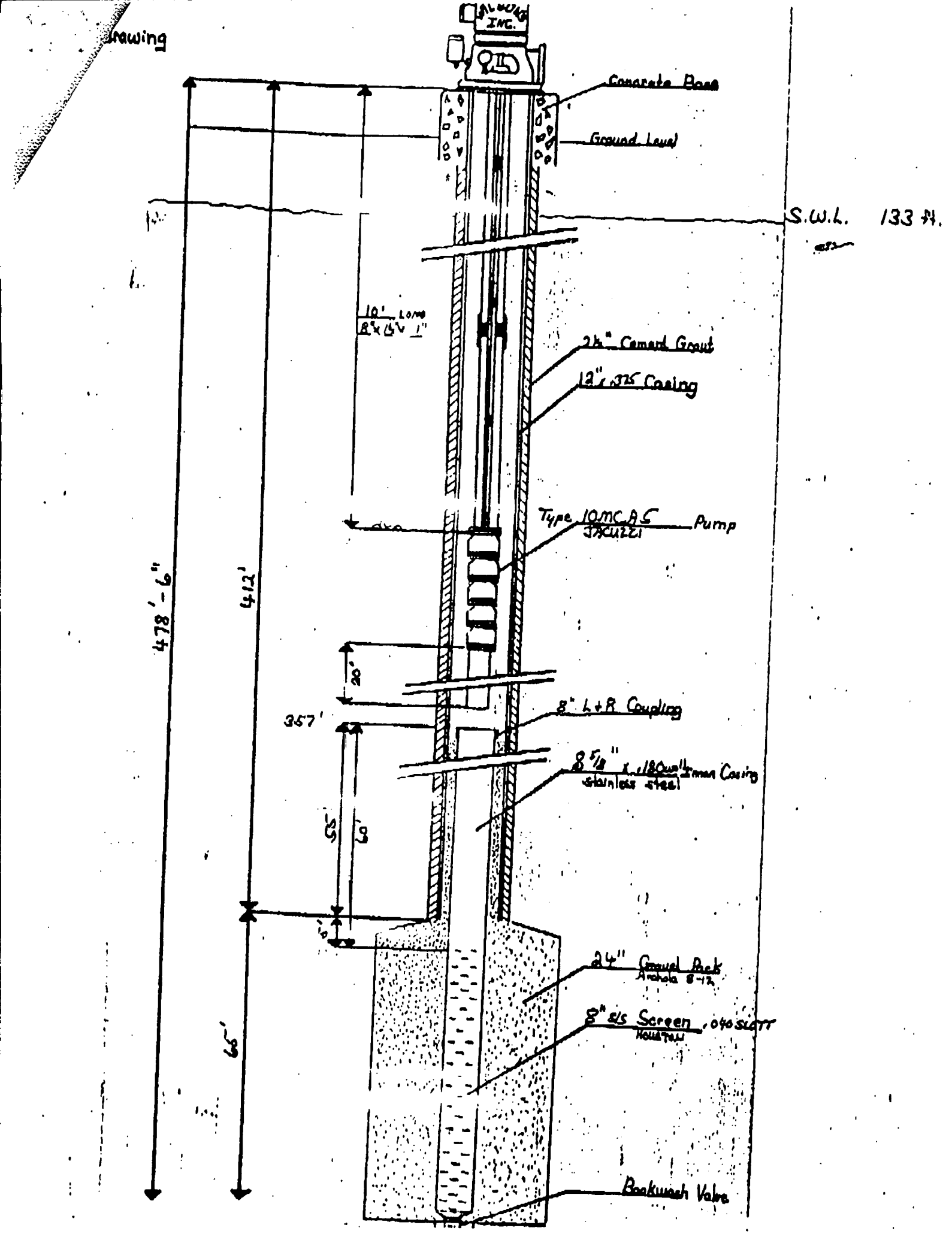
TEST DATA

	PRELIMINARY TEST	FINAL TEST
STATIC WATER LEVEL		
PUMPED G.P.M.		
PRESSURE POUNDS		
DRAWDOWN		
GUARANTEED G.P.M.		
GUARANTEED PRESSURE		
DATE OF TEST		

REMARKS

DRILLER Sam Smith

FIELD SUPT. Robert W. Wilson


Concrete Base
Ground Level
S.W.L. 133 ft.
10' Long
2½" Cement Grout
12" x .375 Casing
Type 10MC A C
JACUZZI
Pump
478'-6"
412'
20'
357'
8" L+R Coupling
8 5/8" x .180 wall
Stainless steel
Casing
55'
5'
10'
24" Gravel Pack
8" s/s Screen .040 slot
65'
Bookwash Valve

RECEIVED
JAN 11 1996
Dept. of Environmental Quality
Land & Water Resources

APPLICATION FOR PERMIT TO DIVERT OR WITHDRAW FOR BENEFICIAL USE THE PUBLIC WATERS OF THE STATE OF MISSISSIPPI

DEPARTMENT OF ENVIRONMENTAL QUALITY, OFFICE OF LAND AND WATER RESOURCES
P.O. BOX 10631, JACKSON, MS 39289-0631; (601) 961-5202

This box is for office use only. FORM OLWR-AP-2 (REV. 9/94)

Issued: 2-27-96	Expires: 2-27-2006	Fee Paid:	Permit No. GW-15040
Lat. 34-56-37	Long. 90-00-53	Elev. 340	USGS No. F99
Quad. Horn Lake	ASCS Farm No.	STAC.	MSDOH No.
Aquifer: SPRT	Tract No.		Basin No. 08010211
Remarks:			Dam Inv. No.

THIS APPLICATION IS FOR (Circle one): (NEW PERMIT) RENEWAL - PERMIT NO. _____

THIS APPLICATION IS FOR (Circle one): (GROUNDWATER) - COMPLETE A,B,E

SURFACE WATER - COMPLETE A,C,D,E

BENEFICIAL USE (Circle one or more): (1) Public Supply - Municipal, (Rural Water, or Private Water) 2) Irrigation 3) Industrial 4) Fish Culture 5) Recreation 6) Institutional (eg. Church, School) 7) Commercial (eg. Hotel, Casino, Restaurant) 8) Fire Protection 9) Livestock 10) Flood Protection 11) Other: _____

SECTION A (to be completed by ALL APPLICANTS)

LANDOWNER: HORN LAKE WATER ASSOCIATION, INC. (Name) 64-0505-460 (SSN or Tax ID No.)

P.O. BOX 151 (Address)

HORN LAKE (City) MS (State) 38637 (Zip) (601) 393 - 0140 (Telephone No.)

APPLICANT, AGENT, OR LESSEE (if different from Landowner):

_____ (Name) _____ (SSN or Tax ID No.)

_____ (Address)

_____ (City) _____ (State & Zip) ( ) _____ (Telephone)

Location of diversion/withdrawal point (A suitable map with location marked must accompany this application):

SW 1/4 of the NE 1/4 of Section 2, Township 2 South, Range 8 West, County DESOTO

Does the land to which this application pertains have any source(s) of water other than that for which you are now applying (circle one)? YES (NO) If yes, describe the nature and amount of any additional supply and, if applicable, list permit number. _____

SECTION B (to be completed for GROUNDWATER SOURCE)

1. **AQUIFER:** SPARTA SAND AQUIFER **MISSISSIPPI DEPARTMENT OF HEALTH NO.:** 170010
2. Proposed work will begin on _____, 19____, and will be completed by _____, 19____.
   If well has already been drilled, when was well completed (date)? MAY 16, 1986. Under whose name was well originally drilled (if known)? WILSON WELLS, INC.
3. Description of proposed or completed well:
   (a) DEPTH OF WELL: 478 feet. DRILLER: _____
   (b) SURFACE CASING: Length 412 feet; Diameter 12" inches; Type _____
   (c) SCREEN: Length 60 feet; Diameter 8" inches; Type SS
   (d) PUMP: Type JACUZZI; Size 10"; Capacity 500 gallons per minute; Setting depth _____ feet
   (e) POWER UNIT: Type U.S.; Size 40 horsepower
4. **PERMITTED VOLUME:**
   (a) _____ acre-feet per year at a maximum rate of _____ gallons per minute
   (b) .20 million gallons per day at a maximum rate of 500 gallons per minute

(CONTINUED ON BACK)

SECTION C (to be completed for SURFACE WATER SOURCE)

1. Source of water is from _____ which drains into _____
   which drains into _____ (major stream or river)
2. Discription of pump/diversion works:
   Pump (size & type): _____ Power Unit (size & type): _____
   Lift: _____ feet Maximum capacity: _____ gallons per minute
3. _____ acre-feet per year at a maximum rate of _____ gallons per minute

SECTION D (to be completed for SURFACE WATER IMPOUNDMENTS {DAMS} on continuously flowing streams)

1. Name of storage reservoir: _____ Dam Height: _____ feet
2. Surface area at normal pool: _____ Storage capacity at normal pool: _____ acre-feet

SECTION E WATER USE DATA (ALL APPLICATIONS - complete section related to beneficial use)

1. **IRRIGATION**: List the number of acres of each crop to be irrigated: Rice_____; Cotton_____; Oats_____;
   Corn_____; Soybeans_____; Pasture_____; Truck_____; Wheat_____; Grain Sorgum_____;
   Other (specify)_____ Acres_____
   A. Method of Irrigation (circle one) - **Center Pivot Flood Furrow**
   B. Land Condition (circle one) - **Precision Land Formed Smoothed**
   C. ASCS Farm No._____ **Tract No.**_____
2. **FISH CULTURE**: Explain how water will be used: _____
   How often will reservoir (s) be emptied and refilled? _____
3. **MUNICIPAL, WATER ASSOCIATION, or PRIVATE WATER SYSTEM**
   Chose "a" or "b". (a) The number of people served is _____ or (b) The number of connections is 1303
   What is the estimated average daily consumption during periods of maximum use at the end of each five-year period during the next twenty (20) years? _____ (Volume) _____ (Year); _____ (Volume) _____ (Year); _____ (Volume) _____ (Year); _____ (Volume) _____ (Year)
4. **INDUSTRIAL** : If the water is to be released into a watercourse, indicate the amount released each year _____;
   Rate of release _____; NPDES Permit No. _____
   Explain any changes in quality of water to be released: _____
   Explain how water will be used: _____
   How much groundwater will be used for once-through non-contact cooling? _____
5. **RECREATION**: Explain how water will be used: _____
6. **OTHER USE**: Explain in detail (if needed, attach another page): _____
7. **REMARKS**: THERE IS NO WAY I CAN ESTIMATE HOW MUCH WATER OUR SYSTEM IS GOING TO USE OVER THE NEXT TWENTY YEARS!

List below the person to be contacted for additional information if required.

CONNIE BUNTING
(Name)

P.O. BOX 151
(Address)

HORN LAKE, MS 38637
(City, State, Zip)

601-393-0140
(Telephone)

The accompanying map is hereby declared a part of this application.
For irrigation and fish culture use, an ASCS photograph is required.
The **TEN DOLLAR ($10.00) permit fee** is enclosed herewith.

Connie Bunting
(Signature)

Subscribed and sworn to before me this 5th day of Jan, 19 96, at Desoto County of MS

My Commission Expires November 13, 1998

My commission expires _____ Dorace A. Castle Notary Public.

DEPARTMENT OF ENVIRONMENTAL QUALITY - OLWR

PUBLIC SUPPLY WELLS PROJECT

Stewart/Everett ~~SHB+PEG~~ GPS LOG 10/22/98 ~~8-22-98~~

USER NAME(S): ~~LAR / DAS~~ DATE: ~~7/28/98~~

UNIT DEQ #: 84090 FILE #: ~~B0722140~~ ~~A0822138~~

HEALTH DEPT. #: 170010-03 ELEV. 300

USGS #: 466 F-T9 OLWR #: A1022218B MS-GW-15040.

OWNER: Horn Lake Water Assoc.

LOCATION: NW/SW/NE S 13 T 2S R 8W COUNTY: DeSoto

LOCATION DESCRIPTION: Horn Lk. Quad. Well NE from well #1 & storage tank.

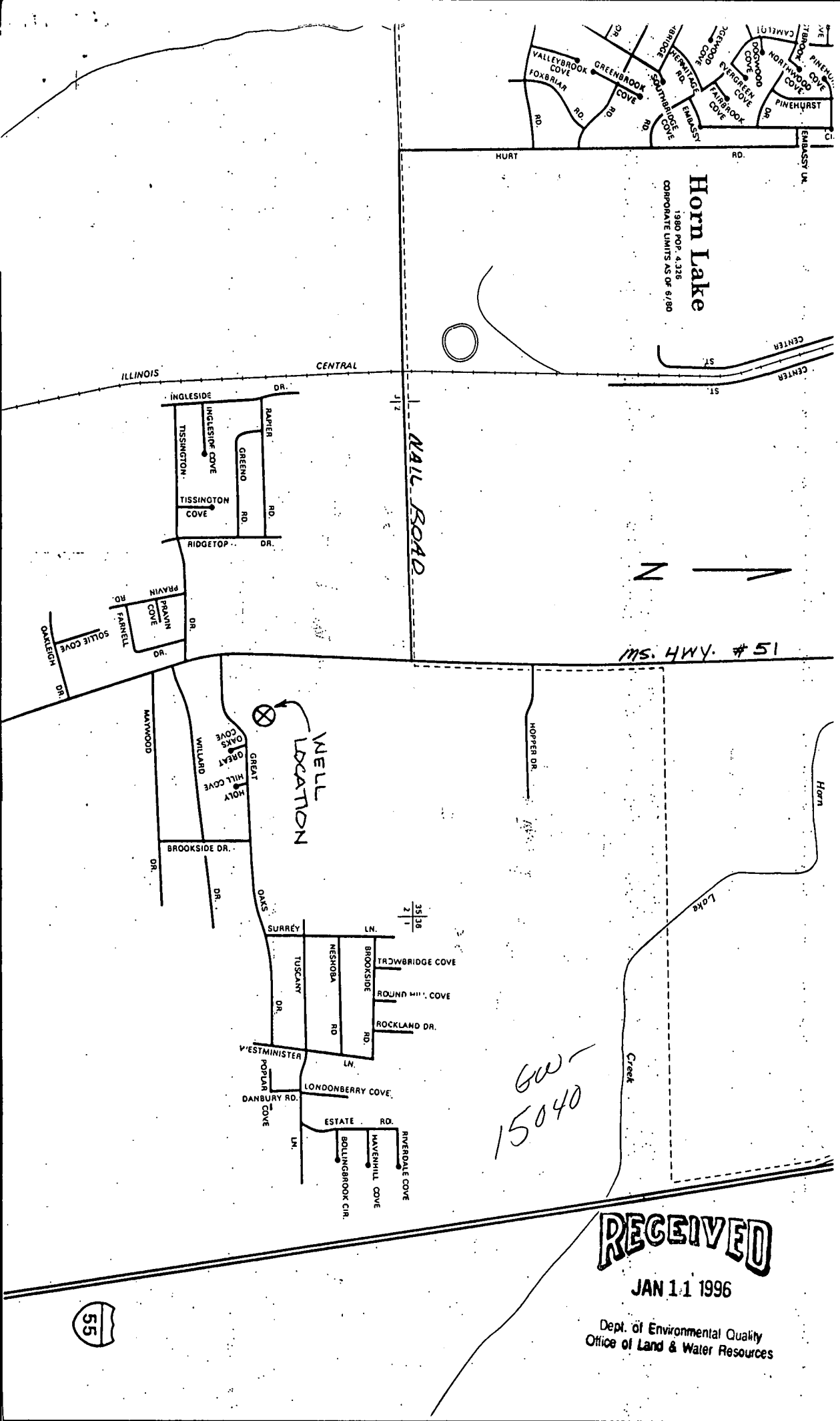
CASING DIA: 10" PUMP TYPE & SIZE: Turbine / 40

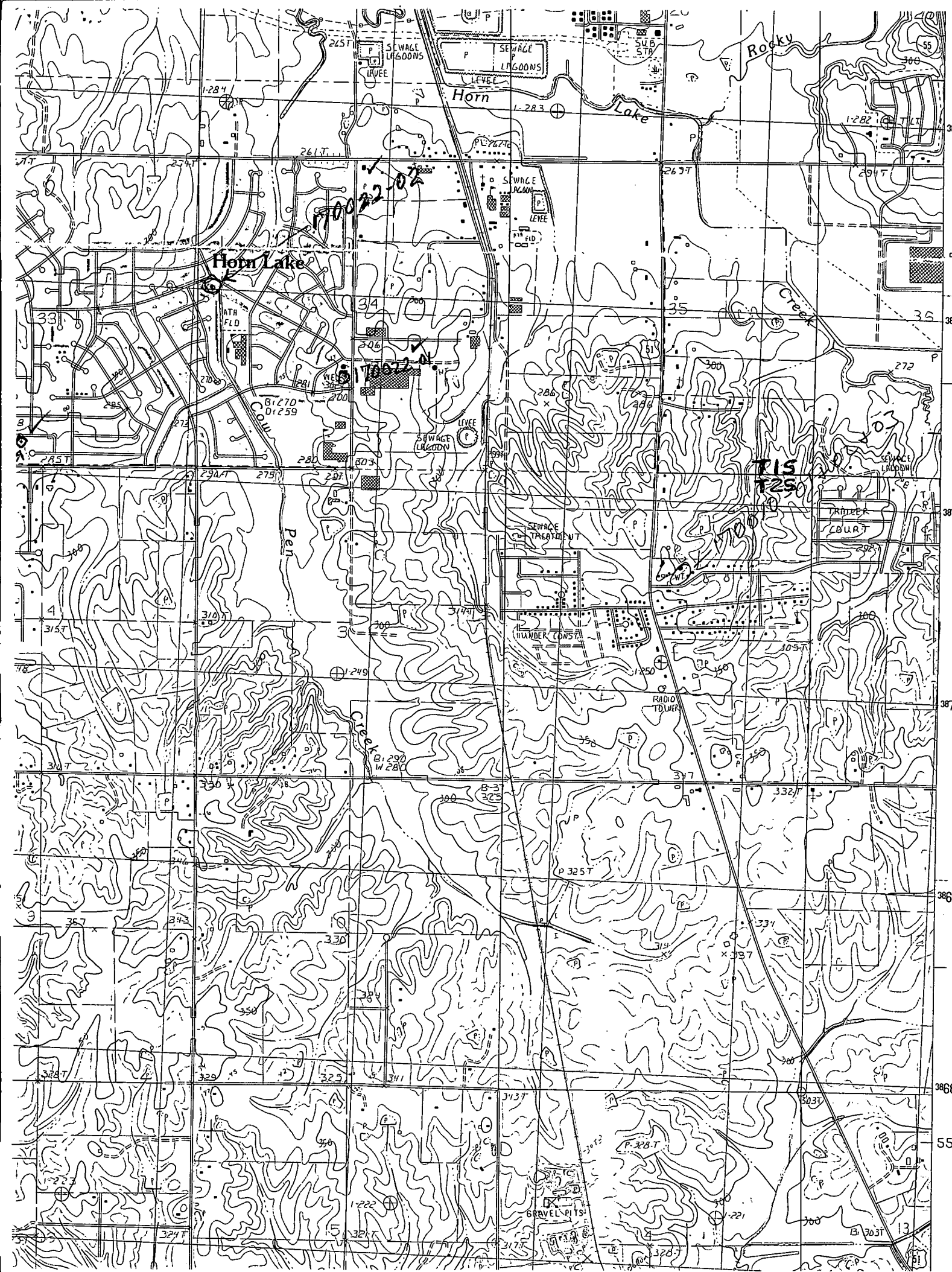
GPS FIELD LOCATION: LAT. 34-56-607N LONG. 90-00-992W

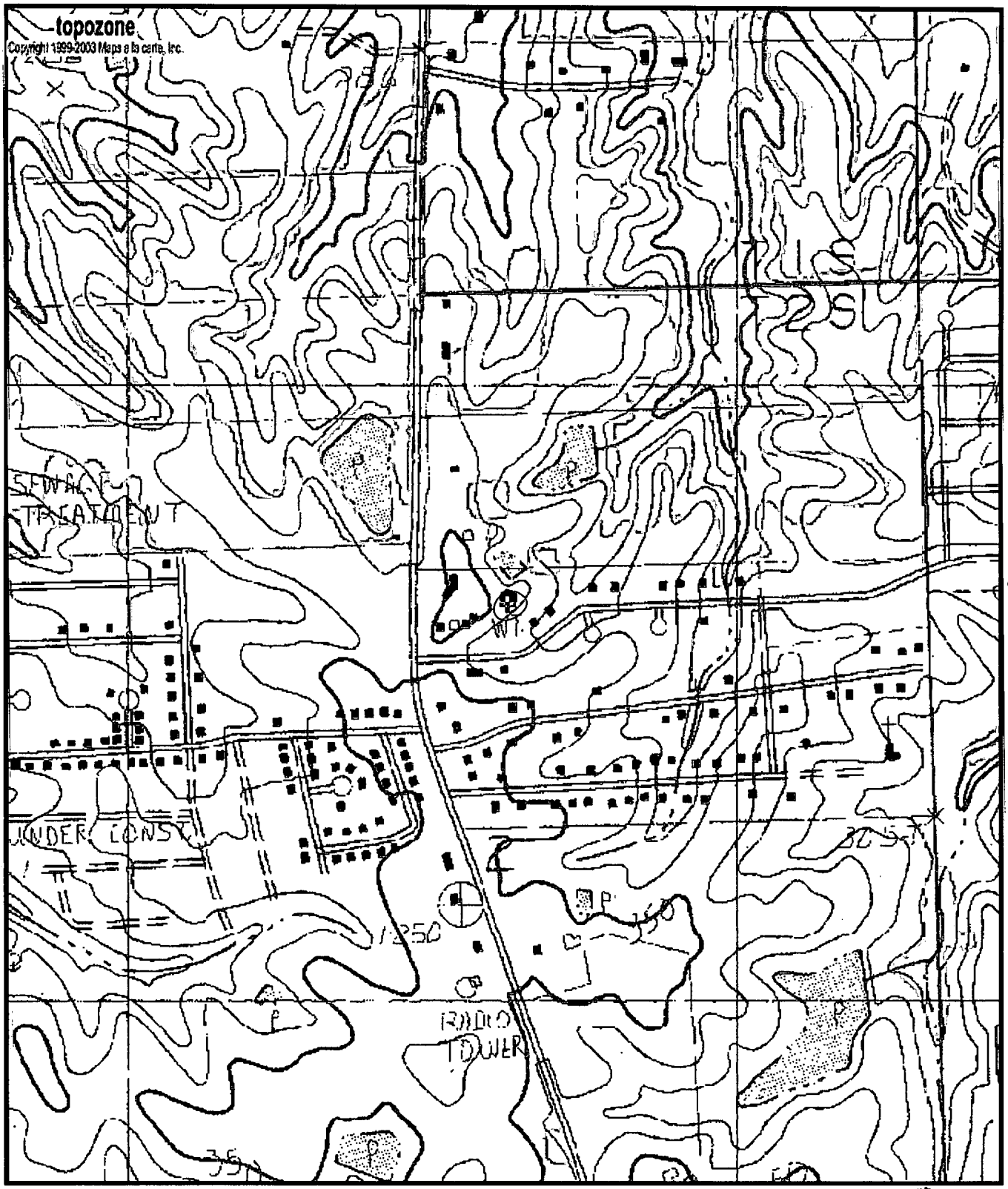
GPS CORRECTED LOCATION: LAT. 34° 56' 593" (34° 56.620') LONG. 90° 00' 912 (90° 00.905')

REMARKS: see #1 for location & Drawing

~~Lat 34.945164 N. Long 90.014236 W~~




Horn Lake
Horn Lake
Rocky
Creek
Cow Pen Creek
SEWAGE LAGOONS
LEVEE
SEWAGE LAGOON
SEWAGE TREATMENT
SUB STA
TRAILER COURT
HUNDER CONST.
RADIO TOWER
GRAVEL PITS
ATH FLD
T1S
R2W
3873
3872
3871
3870
3869
3868
55'
57'



0170010-03
6W15040
F99

Map center is 34° 56' 37"N, 90° 00' 54"W (WGS84/NAD83)
Horn Lake quadrangle
Projection is UTM Zone 15 NAD83 Datum

M=-C.005
G=1.711