

\*\*\* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \*\*\*  
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN  
ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

DATE: November 24, 2009

PERMIT #: 92321

PROPERTY OWNERS NAME: GARY W. & TANA L. CLEMENS

AGENTS NAME: GREG W. JOHNSON, P.E., R.S.

MAILING ADDRESS: 534 SAVANNAH SPRINGS WAY

MAILING ADDRESS: 170 HOLLOW OAK

CITY, STATE, ZIP CODE: SPRING, TEXAS 77373

CITY, STATE, ZIP CODE: NEW BRAUNFELS, TEXAS 78132

PHONE #: (832) 647-9996

PHONE #: (830) 905-2778

ALL CORRESPONDENCE SHOULD BE SENT TO: OWNER: \_\_\_\_\_ AGENT: X BOTH: \_\_\_\_\_

**LEGAL DESCRIPTION OF PROPERTY:**

SUBDIVISION NAME: CANYON LAKE HILLS

UNIT: 1 LOT: 743 BLOCK: \_\_\_\_\_ ACREAGE/LEGAL: \_\_\_\_\_

STREET NAME/ADDRESS: CANYON LAKE DRIVE CITY: CANYON LAKE ZIP: 78133

IS PROPERTY LOCATED OVER THE EDWARDS RECHARGE ZONE? YES \_\_\_\_\_ NO X IF YES, THE PLANNING MATERIALS MUST BE COMPLETED BY A REGISTERED SANITARIAN (R.S.) OR PROFESSIONAL ENGINEER (P.E).

IS THERE AN EXISTING TCEQ APPROVED WPAP FOR THE PROPERTY? YES \_\_\_\_\_ NO X IF YES, THE R.S. OR P.E. SHALL CERTIFY THAT THE OSSF DESIGN COMPLIES WITH ALL PROVISIONS OF THE EXISTING WPAP.

IF THERE IS NO EXISTING WPAP, DOES THE PROPOSED DEVELOPMENT ACTIVITY REQUIRE A TCEQ APPROVED WPAP? YES \_\_\_\_\_ NO X IF YES, THE R.S. OR P.E. SHALL CERTIFY THAT THE OSSF DESIGN WILL COMPLY WITH ALL PROVISIONS OF THE PROPOSED WPAP. A PERMIT TO CONSTRUCT WILL NOT BE ISSUED FOR THE PROPOSED OSSF UNTIL THE PROPOSED WPAP HAS BEEN APPROVED BY THE APPROPRIATE REGIONAL OFFICE.

\*\*\*\*\*  
TYPE OF DEVELOPMENT: - CHECK ONE

X SINGLE FAMILY RESIDENTIAL - TYPE OF CONSTRUCTION HOUSE  
(HOUSE/MOBILE, RV, ETC)

3 # OF BEDROOMS 2432 TOTAL SQ. FT. OF LIVING AREA 240 GALLONS PER DAY

\_\_\_\_\_ COMMERCIAL TYPE OF BUSINESS/INSTITUTION: \_\_\_\_\_

\_\_\_\_\_ NUMBER OF OCCUPANTS \_\_\_\_\_ GALLONS PER DAY

SITES GENERATING MORE THAN 5000 GALLONS PER DAY ARE REQUIRED TO OBTAIN PERMITTING THROUGH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.

SOURCE OF WATER: PUBLIC X PRIVATE WELL \_\_\_\_\_ Other: \_\_\_\_\_

PLANNING MATERIALS & SITE EVALUATION AS REQUIRED COMPLETED BY: GREG W. JOHNSON, P.E.

SYSTEM DESCRIPTION: PROPRIETARY: AEROBIC TREATMENT AND DRIP TUBING

SIZE OF SEPTIC SYSTEM REQUIRED BASED ON PLANNING MATERIALS & SITE EVALUATION:

TANK SIZE(S) NORWECO 960-500 GALLONS ABSORPTION/APPLICATION AREA 1300 SQ. FT.

ARE WATER SAVING DEVICES BEING UTILIZED WITHIN THE RESIDENCE? X YES \_\_\_\_\_ NO

I CERTIFY THAT THE COMPLETED APPLICATION AND ALL ADDITIONAL INFORMATION SUBMITTED DOES NOT CONTAIN ANY FALSE INFORMATION AND DOES NOT CONCEAL ANY MATERIAL FACTS. AUTHORIZATION IS HEREBY GIVEN TO THE PERMITTING AUTHORITY AND DESIGNATED AGENTS TO ENTER UPON THE ABOVE DESCRIBED PROPERTY FOR THE PURPOSE OF SITE/SOIL EVALUATION AND INSPECTION OF PRIVATE SEWAGE FACILITIES. I ALSO UNDERSTAND THAT A PERMIT OF AUTHORIZATION TO CONSTRUCT WILL NOT BE ISSUED UNTIL THE FLOOD PLAIN ADMINISTRATOR HAS APPROVED AND RELEASED THE DEVELOPMENT PERMIT FOR THIS PROPERTY.

SIGNATURE OF OWNER [Signature] [Signature]

195 DAVID JONAS DRIVE, NEW BRAUNFELS, TEXAS 78132-3760 \* (830) 608-2094 FAX (830) 608-2078



**ON-SITE SEWERAGE FACILITY  
SOIL EVALUATION REPORT INFORMATION**

Date Soil Survey Performed: November 23, 2009

Site Location: CANYON LAKE HILLS, UNIT 1, LOT 743

Proposed Excavation Depth: N/A

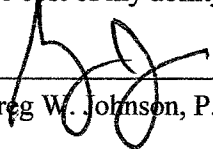
Requirements:

- At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.
- Locations of soil boring or dug pits must be shown on the site drawing.
- For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
- Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

SOIL BORING NUMBER <u>          </u> SURFACE EVALUATION <u>          </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM			FRACTURED LIMESTONE @ 12"	BROWN
1						
2						
3						
4						
5	1A	FRACTURED LIMESTONE	N/A	NONE OBSERVED		

SOIL BORING NUMBER <u>          </u> SURFACE EVALUATION <u>          </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	SAME		AS		ABOVE	
1						
2						
3						
4						
5						

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.

  
\_\_\_\_\_  
Greg W. Johnson, P.E. 67587, S.E. 11561

11/23/09  
\_\_\_\_\_  
Date

**AEROBIC TREATMENT  
DRIP TUBING SYSTEM**

DESIGNED FOR:

Gary & Tana Clemens  
534 Savannah Springs Way  
Spring, Texas 77373

**SITE DESCRIPTION:**

Located in Canyon Lake Hills, Unit 1, Lot 743 on Canyon Lake Drive, the proposed system will serve a three bedroom residence (2432 sf.) situated in an area with shallow Type III soil as described in the Soil Evaluation Report. Native grasses and Oak trees were found throughout this property. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

**PROPOSED SYSTEM:**

A 3 inch SCH-40 pipe discharges from the residence into a new Norweco Model 960-500 gpd aerobic treatment plant containing a 400 gal. pretreatment chamber and a 825 gal. pump chamber. The effluent after processing, is treated by an in-line Norweco tablet chlorinator prior to gravity feeding into the pump chamber. The pump chamber contains a 0.5 HP Norweco 31HA submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a tank operating level from 50-70 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Agricultural Products, Inc. "Spin Clean" filter then through a 1" SCH-40 manifold to a 1300 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the spin filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to trenching the entire field must be scarified and built up with six inches of Type II or III soil (**NOT SAND**) then the drip tubing will be laid and capped with ~6" of Type II or Type III soil (**NOT SAND**). The field area will be sodded or heavily seeded with grass prior to system startup.

**DESIGN SPECIFICATIONS:**

Daily waste flow: 3 Br. Res  $Q=(3+1)*75-(20\%) = 180$  GPD

Pretreatment tank size: 400 Gal

Plant Size: Norweco Model 960-500 (TCEQ Approved)

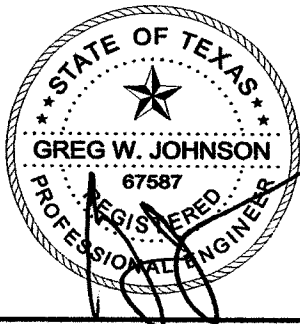
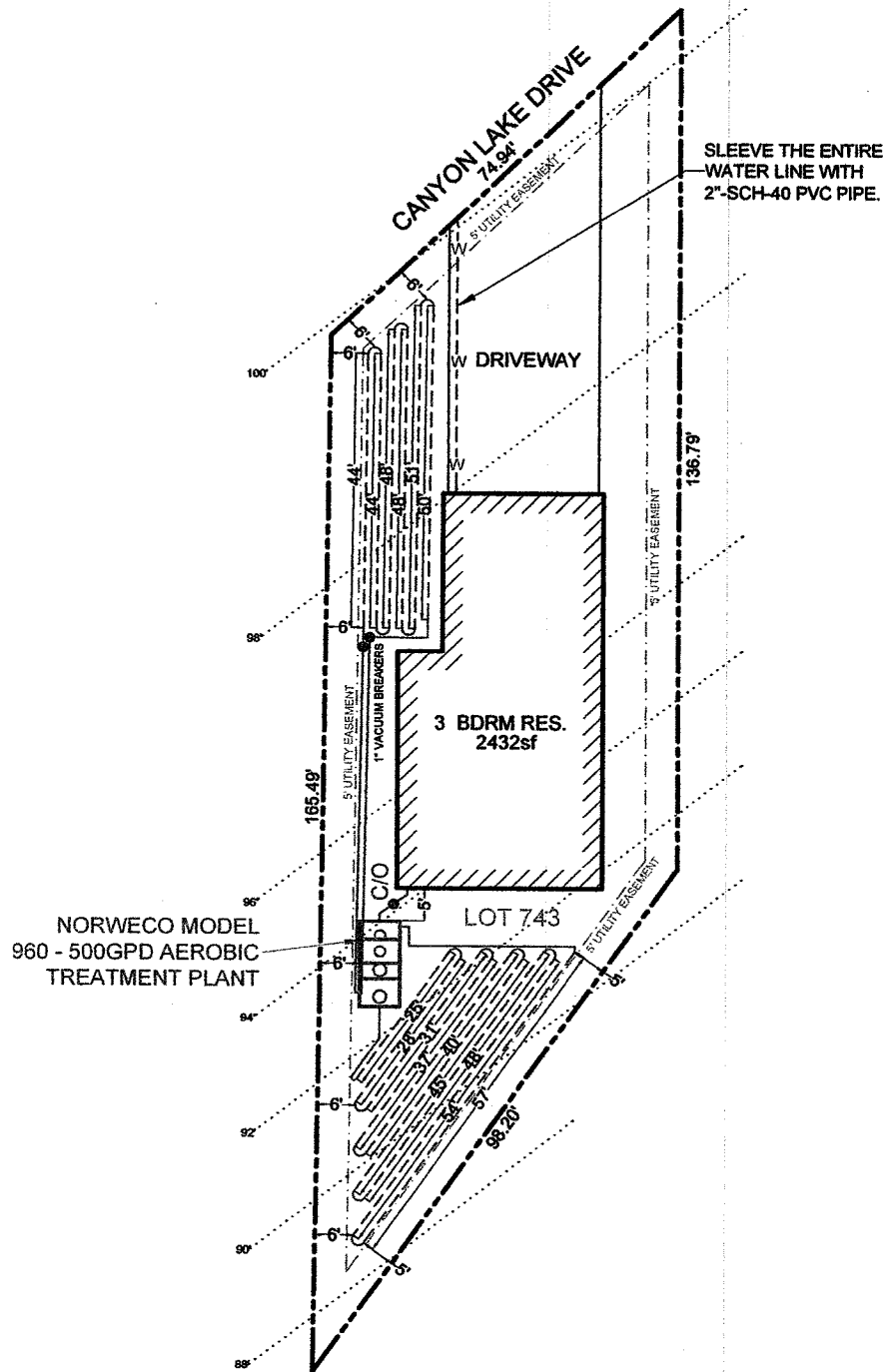
Pump tank size: 825 Gal

Reserve capacity after High Level: 80 Gal (1/3 day Req'd)

Application Rate:  $R_a = 0.2$  gal/sf

INSTALL 1300sf OF  
FIELD USING 650'  
OF DRIP TUBING

\*USE TWO WAY  
CLEAN OUT  
\*\*USE SCH-40 OR  
SDR-26 TO TANK



OWNER: GARY W. & TANA L. CLEMENS		DRAWN BY:	
STREET ADDRESS: CANYON LAKE DRIVE			
LEGAL DESC: CANYON LAKE HILLS	UNIT/SECTION: 1	BLOCK:	LOT: 743
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=30'	DATE: 11/24/2009	REVISED:

