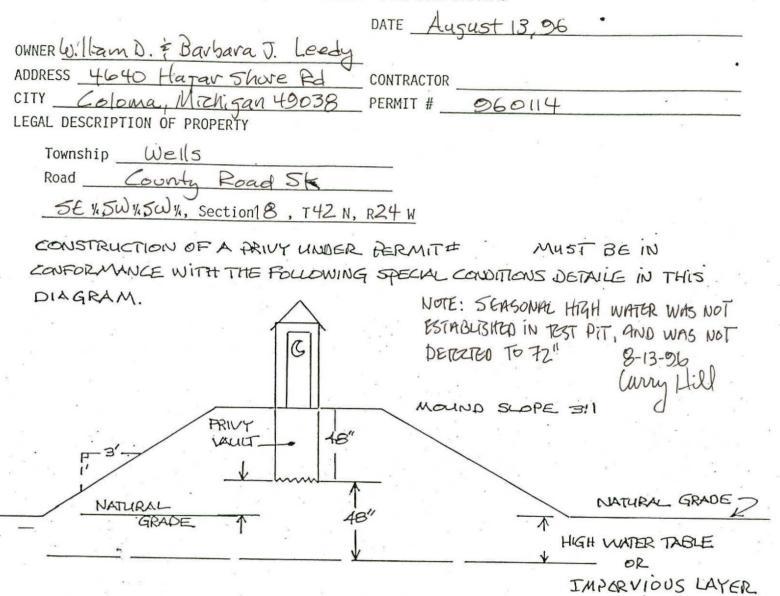
Marquette County Health Department

Division of Environmental Health Site-Soils Evaluation Report

	idation Report
Permit Appl. William D. & Barbara J. Leedy Address 4640 Hazar Thase Rd City Coloma, Michigan 40038 Phone (206) 468 - 5610 Permit/Raw Land # 26014 Legal Description (Project): RoadCounty Rd SK SE 1/4,5W 1/4,5W 1/4, Section 18, T42 N, R24 W Township WELLS	MODDED WOODED
Project Site Data Topography Polling with Shallow to Moderate Stopes. Hardwood Cover on higher elevations, Cedar, tampack & Spruce a lower de. Drainfield Area slope 4-6 % Surface Drainage FOOR - NOWE Project Area Size UNRESTRICTED Replacement Area ADAQUATE Flood Plain/Wet Land Data NO DATA Surface Water Isolation > 500	POWGR & GAS LINE Right OF WAY Rough Road WOODED
Soil Depth (Feet) Boring # Water Table Subsoil Drainage Good Bad 1 - 5" 16" 501L 5" - 16" 501L 5" - 16" 5 Sandy Loam - 16" - 24" 5" 5" - 14" 5 Sandy Loam - 34" - 72" 5 Sandy Clay Loam - 74" - 75" 5 Sandy Clay Loam - 75" 5 Sandy C-Clay L-Loam, SIt-Silt, Com-Compact, File Compact, File Com	Water Subsoil Perc Rate Drainage Good Bad Perc Rate Substitution for Substi
,,	1 00 25

MARQUETTE COUNTY HEALTH DEPARTMENT DIVISION OF ENVIRONMENTAL HEALTH SPECIAL INSTALLATION INSTRUCTIONS FOR

SUBSURFACE SEWAGE DISPOSAL SYSTEMS



ARTICLE IV SECTION 4-5 PART IS OF THE MARQUETTE CO. ENVIRONMENTAL HEALTH CODE STATES IN PART, "SEASONAL HIGH WATER TABLE OR GUIDENCE THEREOF SHALL BE AT LEAST 48" BELOW THE BOTTOM OF THE TRENCH OR SEEPAGE BED."

ARTICLE IV SECTION 4-S PART (1) C. OF THE MARQUETTE CO. GIVIRONMENTAL HEALTH CODE STATES IN PART, "IMPERVIOUS LAYER SUCH AS HARDPAN, CLAY, BENZOCK SHALL BE AT LEAST FOUR FEET BELOW THE BOTTOM OF THE TRENCH, SEEPAGE BED."

MODEL SELECTION

This selection guide is designed to help you pick the best model for your needs. The basic decision is whether to install a self contained toilet or a central composting unit. In either case, non-electric models are available for those who do not have a continuous 110 Volt power supply.

SELF CONTAINED UNITS

- Require no plumbing or water connection, and are quick and simple to install.
- Are more suited for winter operation than central units, because it is often easier to keep the bathroom warm.
- Most (especially electric units) can evaporate all liquids, so approvals are not normally required.
- Are available with different capacities. "SUN-MAR" recommends that you pick a unit with a capacity greater than you really need.

CENTRAL COMPOSTING SYSTEMS

- Are ideal for those who want a flush toilet in the bathroom, or who want to connect more than one toilet to the composting unit.
- Are normally placed under, or outside the bathroom, with 3" plumbing pipe connecting the unit to a 1 pint flush toilet (purchased separately). If possible, the central composting unit should be within 20 feet of the toilet.
- Are often unable to evaporate all the flushing liquid. This excess should be collected or drained into an approved facility.

ELECTRICAL MODELS (For those with a continuous supply of 110 Volt power available)

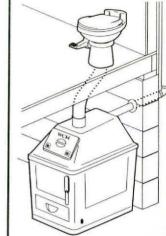


"ECOLET"

Unit designed primarily for Marine/RV use, this three chamber toilet with Bio-drum is available with 110 Volt fan and heater for use where space is very limited.

19 1/2" Wide, 21 1/2" Long.

Capacity (People)
Weekend & vacation 3-5
Residential/continuous 1-2



" MACINI"

High capacity three chamber unit with large insulated Bio-drum. Long narrow shape with rear venting and drain makes it the ideal unit for placing in a basement or between beams.

Capacity (People)

Weekend & vacation 7-9 Residential/continuous 4-6 (4 adults or a family of 6)



"COMPACT"

Elegant, medium capacity unit with the looks to complement any bathroom. Incorporates standard three chambers with patented variable diameter, insulated Bio-drum.

Capacity (People)
Weekend and vacation 3-5
Residential/continuous 1-2



" CENTREX"

High capacity three chamber unit with large insulated *Bio-drum* mounted transversely. Vented and fully serviceable from the front and only 27½" high, this unit is ideal for placing under or to the side of a building.

Capacity (People)

Weekend & vacation 7-9 Residential/continuous 4-6 (4 adults or a family of 6)



"EXCEL"

High capacity three chamber unit. Large insulated Bio-drum gives this unit the capacity to handle virtually any domestic need. Tested by N.S.F. at 4 adults in continuous use.

Capacity (People)
Weekend & vacation 6-8
Residential/continuous 3-5

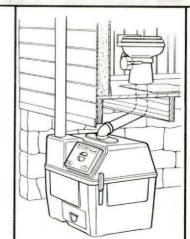
NON ELECTRIC UNITS (For those who do not have a continuous supply of 110 Volt power)



"EXCEL N.E."

Non-electric version of the EXCEL. Has the same three chambers with large insulated Bio-drum, but has a 4" vent exiting from the top rear of the unit. A 12 Volt fan is recommended for residential or heavy use.

Capacity (People)
Weekend & vacation 5-7
Residential/continuous 2-3



"CENTREX N.E."

Non-electric version of the CENTREX. Has the same three chambers and Bio-drum, but is fitted with a 4" vent exiting from the front of the unit. A 12 Volt fan is recommended for residential or heavy use.

Capacity (People)

Weekend & vacation 6-8 Residential/continuous 3-4 (3 adults or a family of 4)

OTHER UNITS AVAILABLE

"EXCEL AC / IDC" and "CENTREX AC / IDC"

These AC/DC units are fitted with ${\bf dual\ vent\ stacks}$ (2" and 4"). They are ideal for those with ${\bf generators\ and\ solar\ panels.}$ (See pages 5 & 9)

"CEMTREX AUR FLOW" and "CENTREX N.E. AUR FLOW"

These units are waterless versions of standard electric and non electric CENTREX models. They use a "Sun-Mar Dry Toilet" (purchased separately) which is mounted directly above the composting unit, and connected to it by a 10" diam. "pipe piece". These come in 31 1/2" sections, and can be cut to size.



Marquette County Health Department

184 U.S. HIGHWAY 41 EAST • NEGAUNEE, MICHIGAN 49866-9671 • FAX: (906) 475-9312

RANDALL M. JOHNSON, M.D., M.P.H., DIRECTOR

Finance & Administrative Services 475-9977

Personal Health 475-7844

WIC Program 475-7846

Home Health 475-4158

Environmental Health 475-4195

Community Health 475-7848

Dental Health 200 W. Spring St. Suite 280 Marquette 228-4144 January 17, 1997

William D. Leedy 4640 Hagar Shore Road Coloma MI 49038

Dear Mr. Leedy:

A Well Construction Permit was issued to you on 8/13/96, authorizing construction of a water well on property located in Wells Township, Section 18, T42N, R24W. A water well record has not been received and we are unsure if the well was ever constructed.

Michigan's Public Health Code, Act 368, P.A. of 1978, requires a water well record to be submitted to this Department within sixty (60) days of well completion.

Please advise on the status of the proposed well or submit a water well record if the well has been constructed by you.

Thank you for your cooperation in this matter.

Sincerely,

Fred J. Benzie, MPH, RS

Environmental Health Supervisor

/cew



NO: 5218018010	MICHIGAN DEPARTMEN WATER WELL AN	NT OF PUBLIC HEALTH ND PUMP RECORD	PERMIT NO:	Page of
	action 4 1/4 SW 1/4 SW 1/4	Section No 18	960114 Town No 42 N	1 1 Range Number 24 W
tance And Direction From Road Intersection Watson Addr: COUNTY ROAD SK WELLS TOWNSHIP	3. Owner of Well WILLIAM D LEEDY Address 4640 HAGER SHORE ROAD COLOMA MI 49038 Address Same as Well Location? NO 4. WELL DEPTH Date Compl This is a: 63 ft. 08/12/97 NEW WELL 5. EQUIPMENT USED: ROTARY CH 6. WELL USE: HOUSEHOLD 7. CASING Type: STEEL Diam. 5 in. to 29 ft. in. to ft. Weight 14.62 lb./ft. Grouted Drill Hole in. to ft. Shale Packer NO			
SEP SEP				
MDY CLAY AND STONES OWN ADN GRAY LIMESTONE	78 28 35 63	Set Between	Diam: Length ft. and ft. [] Blank O ft. Flow: elow land surface: 2 hrs. @ 15 [] Bailer [X] Ai etion: PITLESS ADAPTE	GPM ir [_] Test Pump ER erial: BENTONITE
Abandoned Well Plugged? NO Casing Diameter in. Depth Plugging Material: No. of Bags Casing Removed? Remarks, elevation, source of data, etc.	ft.	Type: SEPTIC TAI Type: 14. Pump: 1 Not I Manufacturer's Model: SP104 Drop pipe: 60 Pump type: SUBM	Distance: nstalled [_] Install Name: STA RITE HP: 0.5 ft. Capacity: 10	ft. Dir: ft. Dir: lation Only Voltage: 220 GPM
Drilling Machine Operator: [X] Employee Name TIM SMITH -228 9/93 Authority: Act 368 PA 1978 Completion: Required Penalty: Conviction of a violation of is a misdemeanor.		This well was dril is true to the bes Registered Bus. Na Business Address	TOR'S CERTIFICATION: led under my jurisdic t of my knowledge and me MACDONALD WELL DRI 275 County Road 55	ILLING, INC. 1780