

Classup Country

Department of Public Health 820 Exchange Street, Suite 100 Astoria, Oregon 97103

Phone 503 325-8500 Fax 503 325-8678

LIEB CE CAN

Annual Operation and Maintenance Report Form – Fee \$60.00 Property Information
Situs Address: 1365 Bailey Los Gearhart Business Name:
Township 7 Range 10 Section 3400 Tax Lot 00524
Owner: Name: Thomas Yeager Email: +py 97217 @gmail.com
Mail Address: Po Box 17359 City/State/Zip Portland, OR 97217
Phone: (503) 522-1838 Phone:
Start-up Date: 6-10-16 System Model # A1 Conclete 5000 gal Tank
System Serial #: Bottom less Sand filter 1500 gal Tank
Onsite Wastewater Treatment System Status: Yes No Was maintenance performed as required by septic system rules (OAR 340-071) and the manufacturer? Is the system operating in accordance with the agent-approved design specifications? Is the system currently under a service contract with a certified maintenance provider?
Is the system failing?
 □ ☑ Discharge of sewage to the ground surface □ ☑ Discharge of sewage to drain tiles or surface waters □ ☑ Sewage backup into plumbing fixtures □ □ If yes, was a repair permit obtained? If not, explain:
Maintenance Provider: Business Name: McDoNald's K+B Contact Name: Paul McDoNald
Mail Address: 808 Glasgow Ave City/State/Zip Astoria, OR 97103
Phone: (503) 458-6521 Email: eds Septic Cyahoo. Com
Certification # M-216 Expiration Date 7-24-18
I certify that this report is complete and accurate to the best of my knowledge. I understand that falsification of this report is grounds for revocation of my certification and/or civil penalties.
Signature <u>12/13/16</u> Date <u>12/13/16</u>

Note: Maintenance providers must maintain accurate records of their maintenance contracts customers, performance data and timelines for renewing the contracts. These records must be available for inspection upon request by the agent per OAR 340-071-0345(14).

OPERATION & MAINTENANCE SERVICE PROVIDER CONTRACT

This service contract has been agreed upon byThomas P. YeagerOwner
Address:PO Box 17359 Portland, Oregon 97217Phone503-522-1838
Property Address: 1365 Bailey Ln Gearhart, Oregon 97138
Taxlot Key:71034CD00524 Acres:0.23
Contracted By McDonald's K & B Paul McDonald Oregon DEQ Maintenance Provider ID # M 216
Address:808 Glasgow Ave Astoria, Oregon 97103 Phone:503-741-6484
on this10 day ofJune 2016
With proper documents, Install and permit requirements, required by DEQ.
The service provider has agreed to provide2 visits at12 intervals to perform operation and
maintenance services for the owner's aerobic treatment unit. This includes the completion of any required
reports required to maintain compliance with Oregon DEQ ATT rules and permit requirements. The service
activities will be provided and completed in accordance with the terms and conditions attached to this agreement.
**SPECIAL NOTE: Drain fields must be kept clear of all vegetation, IE: Blackberries, Shrubs, Gardens, etc.
<u>Tank lids</u> must be accessible and free of all landscaping, vegetation, gardens, etc. Clearing of any of this will be paid extra at the rates provided under Terms and Conditions.
Specific activities are listed in the "12 Month Service Checklist" form and should also include the following:
*Determine if tank pumping is needed by measuring the sludge in the pre-treatment and treatment compartment.
*Inspect the tank and other components for water tight seals.
*Inspect any floats/switches, controls, pumps and electrical components in the system for correct operation
and functionality.
*Inspect and clean the filters (if applicable).
*Inspect and flush the system piping (if applicable). *Inspect the pumps and valves for proper operation, pressure, and/or flow (if applicable).
*Inspect any additional system components which have been added.
*Record pump cycles, flow, and all other relevant information or system problems.(if applicable).
*Complete the report and summarize the service performed, note any conditions which may require additional
attention, document any corrections made and any recommendations you may see fit. Provide the owner a
copy of all the paperwork.
The summarized report must include any repairs that must be made outside of the current visit and an estimate
of the cost of the repairs and the time of completion.
This agreement shall last for the term of24 Months
The fee for the service provided under this agreement shall be \$_250per Year The fee to file with Clatsop County DEQ is \$_60per yearor current fee due to any increase by DEQ
per year_or current ree due to any increase by DEQ

Payment shall be made upon the signing of this agreement.

Additional fees for any service, installation, or replacement parts shall be discussed and agreed upon before it is performed.

The service provider shall provide additional unscheduled services and materials upon notification of any condition that the service provider believes can adversely affect the operations of the ATT.

The undersigned owner acknowledges and agrees that the information above is correct and complete. The owner also agrees to pay all charges under the agreement when done.

_Paul McDonald	Titel Melociale	06/10/2016
Service Provider Printed Name	Signature	Date
Thomas P. V.		
_Thomas P. Yeager		06/10/2016
System Owner Printed name	Signature	Date

OPERATION & MAINTENANCE SERVICE PROVIDER CONTRACT

Address:PO Box 17359 Portland, Oregon 97217Phone503-522-1838
Property Address:1365 Bailey Ln Gearhart, Oregon 97138
Taxlot Key: 71034CD00524 Acres: 0.23
Contracted By McDonald's K & BPaul McDonaldOregon DEQ Maintenance Provider ID # M 216
Address: 808 Glasgow Ave
With proper documents, Install and permit requirements, required by DEQ. The service provider has agreed to provide
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*Inspect any floats/switches, controls, pumps and electrical components in the system for correct operation and functionality.
*Inspect and clean the filters (if applicable).
*Inspect and flush the system piping (if applicable).
*Inspect the pumps and valves for proper operation, pressure, and/or flow (if applicable). *Inspect any additional system components which have been added.
*Record pump cycles, flow, and all other relevant information or system problems.(if applicable).
*Complete the report and summarize the service performed, note any conditions which may require additional attention, document any corrections made and any recommendations you may see fit. Provide the owner a copy of all the paperwork.
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Paul McDonald	Jaul Medal	06/10/2016
Service Provider Printed Name	Signature	Date
Thomas P. Yeager	- TRy	06/10/2016
System Owner Printed name	Signature /	Date



Record nstrument #:

201601709

Recorded By: Clatsop County Clerk

of Pages: 1 Fee: 47.00

Transaction date: 3/7/2016 13:31:58

Return to Address: ORTLAND OR 97217

Signature of Notary Public

"NOTICE TO TITLE AGREEMENT" FILED FOR THE RECORD AT THE REQUEST OF THE CLAISOP COUNTY PUBLIC HEALTH DEPARTMENT NOTICE FOR OPERATION AND MAINTENANCE REQUIREMENT TOWNSHIP: 7N RANGE: 10N SECTION 34COUNT NUMBER: 524 ON-SITE SEWAGE SYSTEM PERMIT NUMBER: 41415 LEGAL DESCRIPTION:	
Lot 5, BAILEYNO. 2, a replat of Tract "A"and the East 8.52 feet of Lot 9, Bailey Subdiv December 9, 2006 as Instrument No. 200810983 in Book 15 of Plats, page 219, Cl	
Additional Legal Description Can Be Found On Page OfDocument(s) ON-SITE SEWAGE SYSTEM: OPERATION & MAINTENANCE REQUIREMENT OF THE CLATSOP COUNTY PUBLIC HEALTH DEPARTMENT. The residence or facility on this property utilizes an alternative method of sewage disposal, which requires regularly scheduled monitoring and maintenance. Monitoring and maintenance is required to be performed by a person certified by the Oregon Department of Environmental Quality as specified in the Oregon Administration.	
Environmental Quality as specified in the Oregon Administrative Rule OAR 340-071-0220. Thoras Year Signature of property owner/grantor Print name State of OREGON Print name	ger
County of Clatsop This instrument was acknowledged before me on by: OFFICIAL STAMP CARLOS & KOMBA NOTARY PUBLIC - OREGON COMMISSION NO. 941352 MY COMMISSION EXPIRES AUGUST 02, 2019	
Signature of property owner/grantur Print name State of OREGON County of Clatsop	
This instrument was acknowledged before me on theday of, 201	

Clatsop County

Public Health Department

Onsite ID: **OS414151** Issue Date: 6/3/2015

Certificate of Satisfactory Completion

Installation of this onsite wastewater treatment system has been determinded to comply with the applicable requirements in Oregon Administrative Rules Chapter 340, Divisions 071 and 073 and the conditions of Permit OS414151 as follows:

PROPERTY INFORMATION

Property Owner:

Yeager Thomas P

Township 7, Range 10, Section 34 C D

Property Location: 1365 Bailey Ln, Gearhart

Tax Lot 00524

Facility Type:

Single Family Dwelling

4 Bedrooms

SPECIFICATIONS AND REQUIREMENTS

System type:

Bottomless Sandfilter

Design Flow:

450.00 gals/day

Minimum Septic Tank Size: 1500.00 gals

Distribution Type:

Equal

Total Trench Length:

Trench Spacing: Media Type:

Sand

Maximum Trench Depth:

36.00 inches

Minimum Trench Depth: Drain Media Total Depth: Drain Media Below Pipe: Drain Media Above Pipe:

*Minimum undisturbed soil between trenches

ADDITIONAL CONDITIONS

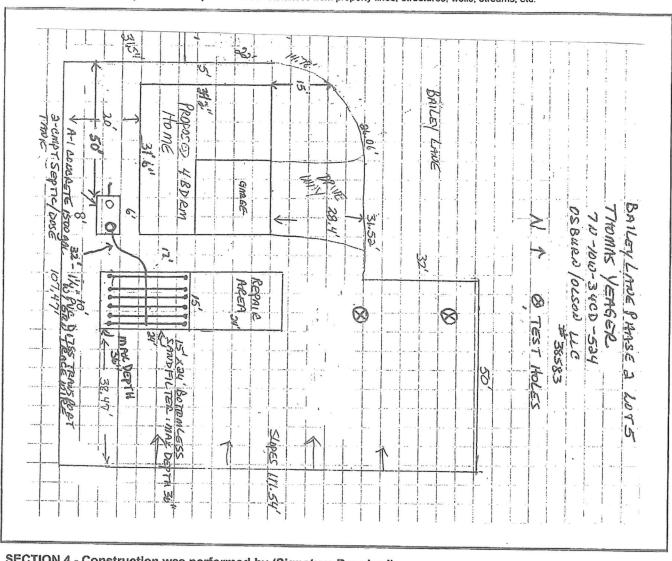
- 1 In accordance with Oregon Revised Statute 454.665, this Certificate of Satisfactory Completion is issued as evidence of satisfactory completion of an onsite wastewater treatment system at the location identified above.
- 2 Issuance of this Certificate does not constitute a warranty or guarantee that this onsite wastewater treatment system will function indefinitely without failure. Conditions imposed as permit requirements continue for the life of the system.
- 3 The area of the initial and the identified replacement area must not be subjected to activity that is likely to adversely affect the soil or the functioning of the system. Such activities may include, but are not limited to, vehicular traffic, livestock, covering the area with asphalt or concrete, filling, cutting, or other soil modification activities.
- 4 This onsite wastewater treatment system must be connected to the facility referenced herein within 5 years of the issuance of this Certificate of Satisfactory Completion (CSC) or rules for authorization notices, alteration permits, or construction-installation permits as outlined in OAR 340-071-0160, 340-071-0205, or 340-071-0210 apply, including payment of an additional fee.
- 5 This system must operate in compliance with OAR Chapter 340, Division 071 and must not create a public health hazard or pollute public waters.

Final Inspection Request and Notice - Onsite ID: 414151

Pursuant to the requirements within ORS 454.665, OAR 340-071-0170 and OAR 340-071-0175, the system installer and/or the permittee must notify the Department of Environmental Quality (or its authorized Agent) when the construction, alteration or repair of a system for which a permit was issued is completed and prior to backfilling or covering the installation. The Department (or Agent) has 7 days to perform an inspection of the completed construction/installation following the official notice date, unless the Department (or Agent) elects to waive the inspection and authorizes the system to be backfilled. Receipt and acceptance of this completed form by the Department (or Agent) establishes the official notice date of your request for the pre-cover inspection. Faxed copies are acceptable for inspection request purposes only. Originals must be received before a Certificate of Satisfactory Completion is issued. Please complete sections 1 through 4 on the form and return it to the office that issued the permit. Forms that are determined to be incomplete will be returned.

				-					
SECTION 1: Owner	/Permittee Info	ormatio	n:		Townsl	hip 07	N, Range 10W, Section	34 CD	
Name: Thomas Y	'eager				Clatsor	Cour	nty TaxLot#: Tax Lot 5	90.524	
Property Bailey Lar Address:	-						,	[
SECTION 2: System	n Component	Specifi	cations	<u>:</u>		A CONTRACTOR			
A. Tanks/Pumps	Sy	stem T	ype: Sa	and F	ilter: Botton	nless	- Residential	Water tight verification*	
Tanks(1) Volume:	1500 C	mpartme	nts: 2		Manufacturer:	A-1	CONCRETE	Date:5/27/15	
Tanks(2) Volume:	Co	mpartme	The second second second		Manufacturer:			Date:	
Pump(s) HP: 1/2 N	Model/Manuf.	300	5		Float(s)Type(1)	MF	Model/Manuf. "A" OR	5000 36A	
					Float(s)Type(2)	:	Model/Manuf.	Military and the second	
B. Piping									
, 0	tank to drainfield)	Yes	No/	Diame	eter:	ASTM	#/Other:	Length:	
	re Transport Pipe		No	Diame					
		100/		Diame	1/4	7.011	#/Other: D1785	Length: 26	
C. Secondary Treatment		Tr.			X		- Io		
LA TERACS	Yes No	Type:			LESS		Container Dimension	10 101	
Underdrain pipe Diameter: 3/4"			ASTM#/Other: D /785 Length:/3						
Manifold piping		ASTM#/Other: D1785 Length:: /2/2							
Internal Pump	10/19		/Manufact						
Floats(1)	Type: N/A	Model/	Manufact	turer					
Floats(2)	Type: N/A	Model/	/Manufact	turer					
ATT	Yes No	Model:					***************************************		
Gertified Maint.	Provider Name:			-					
Operation and Maint.	Contract Received	? Yes	No						
D. Drainfield Media									
Type	(Gravel, Pipe or al	ternative?	2740	60	ED SAND	17	Idsea PEAGRAV	ELE DR. Rox	
Distribution Box	Yes No	1	0.70		0 9 2 1 1 10 9	/ /	TO SECTIONALIO	ect pict too	
Drop Box	Yes No V								
Distribution Pipe	Yes No	Diamete	r:	AS	TM#/Other:	-	To 12 19 19 19 19 19 19 19 19 19 19 19 19 19	Length:	
	24" x24"	PISE	70 5 11	1/1.	DS' FIL	720	FABRIC		
Comment	01 101	130	ns w	100) 110		1 MORIC	and the second s	
*All Tanks(s) were tested **Attach sieve analysis fo	l for water-tightness or Underdrain Media	s after ins a and Filte	tallation a er Sand	and pa	ssed in accorda	nce will	PAR 310-073-002513bpar	ment	
Application ID 112010 C							of Public Health	ogram	
Apprication 1D: 416018, Co	onstruction-Installatio	n Permit -	Single Fa	mily D	welling, Owner N		proved By M,M		
							mit No. 5000'	DEQ-Rev: 4/8/2008	
						Da	7,11	5	
						Seal Sell		,	

AS-BUILT PLAN OF THE CONSTRUC _D SYSTEM. Indicate the direction of NORTH. Show lowerons of all wells within 200 feet of the system. Show system setback distances from property lines, structures, wells, streams, etc.



SECTION 4 - Construction was performed by (Signature Required)

I certify that the information provided on both pages of this document is correct and that the construction of this system was in accordance with the permit and the rules regulating the construction of onsite wastewater treatment systems (OAR Chapter 340, Divisions 71 and 73).

Owner/Permittee or	Certified In	etaller wic	ortification#. Dr	int Name:								
		staller w/C	ertification#; Fri	int Name.	BURN/OL	LSON LL	C/RE	X OLSON				
Licensed Installer:	Yes No	Lic	ense#: 20 FG			Certification#:	- 11 an	70000				
Owner/ Certified	Signature:		3858	3			1 168 /					
Installer:	Oignature:				Date: /2	8/2015	Phone#: 503	-717-3907				
SECTION 5 - Of	SECTION 5 - Office Use Only:											
		7		-	installer/Owner							
Notice Accepted	Yes	No	Date:		(Permittee) Notified		No	Date:				
If No, Reason for N	lon											
Acceptar												
						<i>a</i> : <i>a</i>	Dar	autmont				
Comm	ent:					Clatsop C	ounty Dep	urimeni 1.1				
						of P	ublic Hea	in				
						On-Site Wa	aste Water	Program				
A 17 .7 .m	_				A	Approved B	y M.A					
Application ID: 41601	8. Constructio	n-Installatio	on Permit - Single F	amily Dwelling	, Owner Name: Tho	masaYéngeto.	50007	Page 2 of 2				
						Date G	3/15	DEQ Rev: 4/8/2008				



Clatsop County Department of Public Health

820 Exchange St., Suite 100 Astoria, Oregon 97103 Phone (503) 325-8500 Fax (503) 325-8678

March 9, 2016

Thomas Yeager 1365 Bailey Lane, #7-10-34CD-524 Gearhart, OR. 97138

RE: Certificate of Satisfactory Completion

Dear Mr. Yeager,

As you may be aware, your licensed installer requested that Clatsop County Public Health inspect your recently installed septic system. At the time of the inspection, the inspector approved the installation and allowed the installer to cover the exposed components. However, the Certificate of Satisfactory Completion (CSC), the document indicating the septic system installation process has been completed, cannot be released because one important document is missing and must be submitted first before the CSC can be mailed.

The State of Oregon requires that all alternative septic systems, like the one installed on your property, must have an ongoing operation and maintenance (O&M) contract provided by a licensed provider. This is a signed contract between you (the owner) and a licensed O&M provider for the system. This contract has not been submitted. This contract MUST be provided to Clatsop County in order to receive a CSC. A list of O&M providers is enclosed if you do not already have a provider.

We have received your Notice to Title Agreement that was filed with the County Clerk's Office which is another document required, so at this time the only document missing is the O&M contract.

If you have any questions, please do not hesitate to contact Michael McNickle, Environmental Health Supervisor, at 503-338-3686 or email him at mmcnickle@co.clatsop.or.us

Thank you,

Annette Brodigan

Permit Tech

Clatsop County Public Health

Phone: 503-338-3681

Email: abrodigan@co.clatsop.or.us

Cc: Licensed Installer

File

Encl: O&M Providers List

Mailed JUN 1 9 2014

State of Oregon

Department of Environmental Quality

Onsite ID: **OS414151** Expiration Date: 6/18/2015

Construction-Installation Permit

This Construction-Installation Permit OS414151 authorizes the property owner to construct an onsite wastewater system as follows:

PROPERTY INFORMATION

Property Owner:

Thomas Yeager

Clatsop County

Property Location Bailey Lane, Gearhart

Township 07N, Range 10W, Section 34 CD

Facility Type:

Single Family Dwelling

Tax Lot 500

Now Lot 524

Lots Bailey Lane - Phase 2

4 Bedrooms

SPECIFICATIONS AND REQUIREMENTS

System Type: Sand Filter: Bottomless - Residential

Design Flow:

450 gals/day

Minimum Septic Tank Size: 1500 gals

DistributionType:

Pressurized

Sand Filter:

360 SqFt

Maximum Trench Depth:

36 inches

ADDITIONAL CONDITIONS

- Do not disturb the initial and replacement sand filter areas.
- ² A copy of the Service Contract with a DEQ certified Maintenance Provider shall be submitted to DEQ immediately.
- ³ All roof drains must be directed away from the system.
- 4 An electrical permit and inspection from the Department of Consumer and Business Services, Building Codes Division or the municipality with jurisdiction is required for all pump wiring installation.
- Filter fabric is required over the drain media. NA
- ⁶ Meet all required setbacks.
- ⁷ The alarm and pump must be on separate circuits in the control panel.
- 8 The system must be installed in accordance with the plan approved by the agent, including any changes made by the agent.
- ⁹ Vehicular traffic and livestock must be restricted from the system area.
- 10 All work is to conform to Oregon Administrative Rules, Chapter 340, Divisions 071 and 073. Make no changes in system location or specifications without written approval from the permit issuing agent.

Scanned JUN 19 2014

6/19/14 emailed to Vicky, George + Owner

INSPECTION REQUIREMENTS

- ¹ A final inspection is required after landscaping or other erosion control measures are established.
- ² A final inspection request and notice form including a detailed and accurate as-built plan of the constructed system and a list of all materials used in the construction of the system must be completed and submitted prior to requesting a final inspection.
- ³ A squirt test inspection of the pressurized piping system is required.

For pre-cover inspection information, contact your agent below:

Onsite Wastewater Specialist

6/18/2014

6/18/2015

Title

Date Issued Expiration Date

Bernie Duffy

Department of Environmental Quality Northwest Region, Warrenton Office 65 N Highway 101, Suite G Warrenton, OR 97146

Phone: (503) 861-3280 Fax: (503) 861-3259

See the Attachment 1 for additional information about your permit.



Department of Environmental Quality

Eastern Region - Pendleton Office 800 SE Emigrant Ave, Suite 330 Pendleton, OR 97801

> Phone: (541) 276-4063 Fax: (541) 278-0168

This form is an attachment to Building Codes Division's <u>Application for Structural</u>

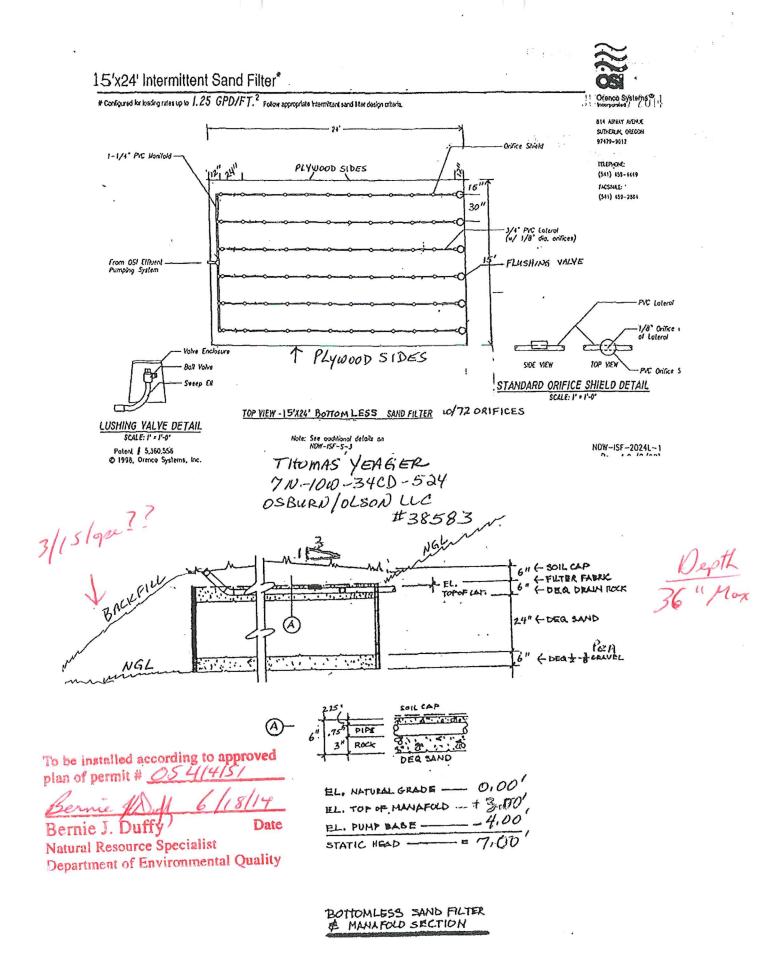
Permit, <u>Application for Plumbing Permit</u>, or other similar forms used by local jurisdictions. This form provides notification to Building Officials or offices having jurisdiction that an approved method of on-site sewage disposal has been accounted for. This notice only pertains to the specific project noted below.

NOTE: The applicant is responsible for retention and delivery of this form to the Building Codes Division office or other local office having jurisdiction.

Property Owner: Thomas Yeager
Property Owner: Thomas Yeager Lots, Bailey Lane-Phase 2 Property Location:
T 7NR 10W 8 3400 Tax Lot # 524 County Clatsop
Site Address, if known: Bailey Lane
Project Description: Structure or Action Type: (describe) New 4 BON SEN
Yes No Permit # Domestic Wastewater: \(\times \) \(\ti
Industrial Wastewater:
Pump Required:
Permit/Approval Issue Date: 6/18/14
Permit/Approval Expiration Date: 6 (18/15
Comments: New Bottomless SFilter
w/ purp
Authorized Signature: Bernard foul Date: 6 /18/14

BLDGCODS.DOC 01/01/2014BM

To be installed according to approved		05 2014
plan of permit #05 4/4/5/	BAILEYLY	TWE PHASE 2 LOTS
Berie Il H / Holls	THOMAS }	leager
Bernie J. Duffy Date	7 13 -1010-	3400-634
Natural Resource Specialist — Date	OSBURN/	OLSON LLC #38583
Department of Environmental Quality		#38583
Quanty	NT	Ø TEST HOLES
	N 1 ~	20'
		50
		(
BAILEY LAWE	32'	
26.06	31,52	
	17/	BLUE : INITIAL
	R 28,4'	YEZLOW: REPAIR
	4 1 1	ORAZGE: HOUSE
15' 15'		
		SUPES ITUSY'
		REPAIR
8	IMP. GE	AREA 34'
	10	
5' 31' 6"		
27.85' PROPOSED 4B	DRM	1 15 x DU BOTTONLESS
Home		
39'2"		24'
3154	6'	MAX DEPTH 36"
26	0000	38, 47
58	8' 18'	10'
V A-1 conce	ETE 1500 AAL	1/4" PUD DITES TRANSPORT
a-cmpti sep	TIC/DOSE	61,47
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-11.00		



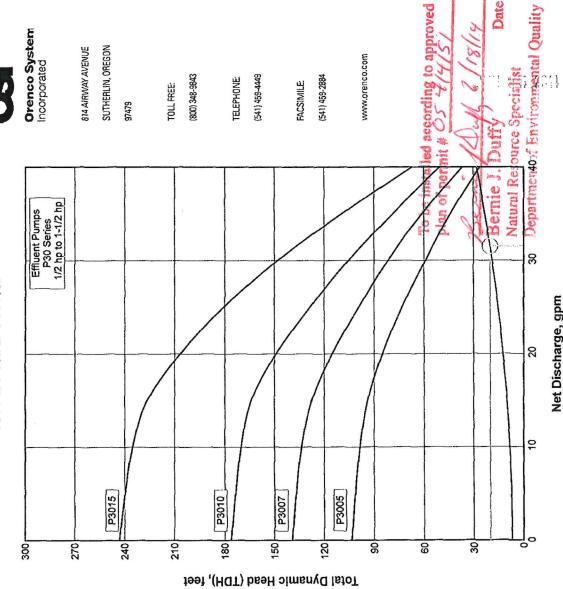
Pump Selection for a Pressurized System

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1/8 inches	5.0 feet	feet		feet	0.75 inches			feet	1.25 inches		7.0 feet	feet	1.25 inches		1.25 inches	None inches	0.0 feet
1/8	5.0	2.00 feet	9	22.0 feet	0.75	40	None	12.5 feet	1.25	40	7.0	18.0 feet	1.25	40	1.25	None	0.0
Orifice Size	Residual Head at Last Orifice	Orifice Spacing	Number of Laterals per Cell	Lateral Length	Lateral Line Size	Lateral Pipe Class/Schedule	Distributing Valve Model	Manifold Length	Manifold Line Size	Manifold Pipe Class/Schedule	Lift to Manifold	Transport Length	Transport Line Size	Transport Pipe Class/Schedule	Discharge Assembly Size	Flow Meter	'Add-on' Friction Losses

Minimum Flow Rate per Orifice 0.43 gpm Number of Orifices per Zone 72 Total Actual Flow Rate 31.5 gpm Number of Lines per Zone 6 % Flow Differential 1st and Last Orifice 4.0 % Lift to Manifold 7.0 feet Residual Head at Last Orifice 5.0 feet Head Loss Through Distributing Valve 0.0 feet Head Loss Through Discharge 5.0 feet Head Loss Through Flow Meter 0.0 feet Head Loss Through Flow Meter 0.0 feet Head Loss Through Flow Meter 0.0 feet																
um Flow Rate per Orifice nber of Orifices per Zone Total Actual Flow Rate lumber of Lines per Zone ential 1st and Last Orifice Lift to Manifold idual Head at Last Orifice Head Loss in Laterals hrough Distributing Valve Head Loss in Transport Pipe Loss Through Flow Meter 'Add-on' Friction Losses			gpm		mdg		%	feet	feet	feet	feet	feet	feet	feet	feet	feet
Minimum Flow Rate per Orfice Number of Orfices per Zone Total Actual Flow Rate Number of Lines per Zone Number of Lines per Zone Kesidual Head Last Orfice Head Loss Through Distributing Valve Head Loss in Transport Pipe Head Loss Through Discharge Head Loss Through Discharge Head Loss Through Elow Meter Mead Loss Through Elow Meter Tansport Pipe Head Loss Through Elow Meter Tansport Losses		;	0.43	72	31.5	9	4.0	7.0	5.0	0.5	0.0	0.4	2.2	5.0	0.0	0.0
	Calculations	Siculations	Minimum Flow Kate per Omice	Number of Orifices per Zone	Total Actual Flow Rate	Number of Lines per Zone	% Flow Differential 1st and Last Orifice	Lift to Manifold	Residual Head at Last Orifice	Head Loss in Laterals	Head Loss Through Distributing Valve	Head Loss in Manifold	Head Loss in Transport Pipe	Head Loss Through Discharge	Head Loss Through Flow Meter	'Add-on' Friction Losses

THOMAS YEAGGN-10W-34CD-524 Osburn/Olson LLC #38583





Orenco System Incorporated

SUTHERLIN, OREGON 814 AIRWAY AVENUE

97479

TOLL FREE:

(800) 348-9843

(541) 459-4449

TELEPHONE

FACSIMILE

(541) 459-2884

www.orenco.com

Net Discharge, gpm

31.5 gpm 20.1 feet

Total Flow Rate TDH

C 5 2014

CLACKAMAS COUNTY "UNDERDRAIN MEDIA" OAR 340-071-100 (173)

1/15/2014

SIEVE	IND. WT. RETAINED	IND. % RETAINED	ACC. %	ACC. % PASSING	spec Limits
1/2	0.0	0.00%	0.00%	100.00%	100
3/8	145.9	17.48%	17.48%	82.52%	
1/4	405.8	48.63%	66.11%	33.89%	18 - 100
#4	179.8	21.55%	87.66%	12.34%	5 - 75
#8	75.8	9.08%	96.74%	3.26%	
#10	15.9	1.91%	98.65%	1.35%	24.0% max
#18	4.1	0.49%	99.14%	0.86%	2.0% max
#100	1.5	0.18%	99.32%	0.68%	1.0% max
PAN	0.8	7/10			
	RRAS	MACH RESIDENCE PROMINING SAFETY AND LABOUR	CONTRACTOR CONTRACTOR		Application of the state of the second of th

DRY WEIGHT BEFORE WASH -B34.5 DRY WEIGHT AFTER WASH -829.6 ASTM TEST MEHTODS #C-117 AND #C-136 IN USE FOR ANALYSIS.

COMPANY NAME: GLACIER NORTHWEST, INC. CALPORTLAND COMPANY

CERTIFIED TECH: LYNN RINGHEIM (MARQUARDT) ODOT# 41361

To be installed according to approved plan of permit # 05 414151

Transport 30 mother

Named Resource Specialist

CLACKAMAS COUNTY FILTER SAND 1/15/2014 "MEDIUM-SAND"

	SIEVE	IND. WT.	IND. %	ACC. %	ACC. %
		RETAINED	RETAINED	RETAINED	PASSING
100	3/8	0.0	0.00%	0.00%	100.00%
95 ~ 100	#4	7.4	0.70%	0.70%	99.30%
80 - 100	#B	49.8	4.71%	5.41%	94.59%
45 - 85	#16	271.1	25,85%	31.06%	68,94%
15 - 60	#30	321.9	30.45%	61.51%	38.49%
3 - 16	#50	265.7	25.13%	86.64%	13.36%
0-4	并100	128.7	12,17%	98.82%	1.18%
	#200	8.4	0.79%	99.61%	0.39%
	PAN	2.4	S 250	6.	1.5
		1057.1	F.M.	2.84	

DRY WEIGHT BEFORE WASH -	1057.1
DRY WEIGHT AFTER WASH -	1055.4
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THOMAS YEAGE	R
7N-10W-34CD	>-524
A STATE OF THE STA	***

COMPANY NAME: GLACIER NORTHWEST, INC. CALPORTLAND COMPANY COLMUMBIA RIVER SAND

CERTIFIED TECH: LYNN RINGHEIM (MARQUARDT) ODOT# 41361

To be installed according to approved plan of permit # 05 4 14/5/

Bernie J. Duffy

Date

Natural Resource Specialist

Department of Environmental Quality

2014

Attachment 1 to Construction-Installation Permit

BE CAREFUL and BE SAFE – CALL FOR UNDERGROUND UTILITY LOCATIONS BEFORE YOU DIG! (503) 232-1987 or 1-800-332-2344

Rules, Approved Material Listing, and Database of Licensed Installers can be accessed at: http://www.deq.state.or.us/wq/onsite/onsite.htm

General Conditions And Requirements For All Permits

Onsite Construction-Installation Permits are valid for one year from the date of issuance. The expiration date is noted on this permit. Renewal of a permit may be granted if an application for permit renewal is received before the permit expiration date. Reinstatement of a permit may be granted if an application for permit reinstatement is received within one year after the permit expiration date. Transfer of a permit from the permittee to another person may be granted if an application for permit transfer is received before the permit expiration date and no other changes to the permit are necessary.

Installation Requirements: The drainfield must be installed in undisturbed native soil. No alterations of the natural site conditions such as soil removal or filling, or slope/topography alterations within the approval areas for both the initial and replacement systems are allowed, unless otherwise authorized by the Agent. Do not install system when soil moisture, high groundwater, adverse weather, or other conditions that could affect the quality of installation or reliability of the system are present. If such conditions are present and there is a need for sewage disposal at the site, the septic tank can be utilized as a temporary holding tank as outlined in 340-071-0160(9).

Inspection Requirements: The system installer and/or the permit holder must notify the permitting Agent when the construction, alteration, or repair of a system for which a permit was issued is completed (except for the backfilling or covering of the installation). The permitting agent has 7 days to perform an inspection of the completed construction after the official notice date, unless the permitting agent elects to waive the inspection and authorizes the system to be backfilled earlier. Receipt and acceptance of a completed Final Inspection Request and Notice form by the permitting agent establishes the official notice date of your request for the final inspection. Faxed copies are acceptable for inspection request purposes only. Originals must be received before a Certificate of Satisfactory Completion can be issued.

System Backfill Requirements: The system is to be backfilled or covered as follows:

- Only after the permitting agent has approved the construction installation,
- or the inspection has been waived
- or the Certificate of Satisfactory Completion (CSC) has been issued by operation of law (where the inspection has not been conducted within 7 days of notification of completed installation).

Unless otherwise required, it is the system installer's responsibility to backfill the system within 10 days after inspection and issuance of the CSC. Backfill must be carefully placed to prevent damage to the system. The backfill must be free of large stones, frozen clumps of earth, masonry, stumps, waste construction materials, or other materials that could damage the system. Be sure that the untreated building paper, filter fabric, or other material approved by the agent is completely covering all drain media where required prior to backfill. The system can be connected to and placed into service once it has been properly backfilled and the CSC has been issued.

Initial and Replacement Areas – Protection: The installed subsurface absorption field and designated replacement areas must be protected and kept free of development such as roadways, covering with asphalt or concrete, filling, cutting, or other soil modifications.



Application for Ousite Sewage Treatment System

Department of Environmental Quality 65 N Highway 101, Suite 202 Warrenton, OR 97146

> Phone/TTY: (503) 861-3280 Fax: (503) 861-3259

	Scan ID
Date Stamp:	For DEQ Use Only: Date Received 6/5/14 Fee Paid 1626
JUN 05 2014	Receipt Number 155638 Application Number 416018
	Date of 1st Response Date of 2nd Response Date of Final Response
	Date of Completion Scanned Data Entry

医全种 经有工程点从	A. Property Ov	vner Information	100 年 6 大 1 大 1 大 1 大 1 大 1 大 1 大 1 大 1 大 1 大
THOMAS YEAGER	Box 17359 Por Mailing Address (Street or PO Box, C	QTLADD, OR 97317 Dity, State, Zip Code)	503-385-0331 Phone Number
	B. Legal Prop	erty Description	
7N 10W Township Range Clatsop	34Cd 524 Section Tax Lot Bailey Lane Phase 2 Subdivision Name	Tax Account Number 5 Lot	.23 Acres Acreage or Lot Size Block
Property Address: Bailey La Address Directions to Property: Go	nne	Gearhart City Shamrock rd turn left onto Bailey La	OR 97138 State Zip Code
the way down and property	is the first lot on right		
Existing Facility: Single Family Residence Number of Bedrooms Other	C. Existing Facility / Propose Proposed Facility: Single Family R Number of Bedroom Other		
	D. Type of	f Application	AND TO SELECT ON
☐ Site Evaluation ☐ Construction Permit ☐ Repair Permit ☐ Major ☐ Minor ☐ Alteration Permit ☐ Major ☐ Minor	Renewal Permit Existing System Evaluation Permit Transfer Permit Reinstatement	Authorization Notice for Connecting to an Existing Street Replacing a Mobile Home or House The Addition of One or Motor Personal Hardship Temporary Housing Other – Please Specify	System Not in Use or House with Another Mobile Home
If the required fee and attachm with your name and address at	ents are not included with this appli the entrance to the property. Flag a	ication, it will be returned to you as in and number the test holes.	complete. Post a flag or sign
and it's authorized agents pern	the information I have furnished is nission to enter onto the above described.	correct, and hereby grant the Departmribed property for the sole purpose of 5/29/14 Date	nent of Environmental Quality this application.
George Owen Applicant's Name – Please Print Legi	bly	503-717-8681 Applicant's Phone Number	Applicant's E-mail Address
89647 Manion Dr Warrento Applicant's Mailing Address	on, OR 97146		
Applicant is the Owner	Authorized Representative	Licensed Septic Installer	
	Authorization Attached	Osburn/Olson LLC #38583	3

Installer's Name

SCANNED
JUN - 5 2014



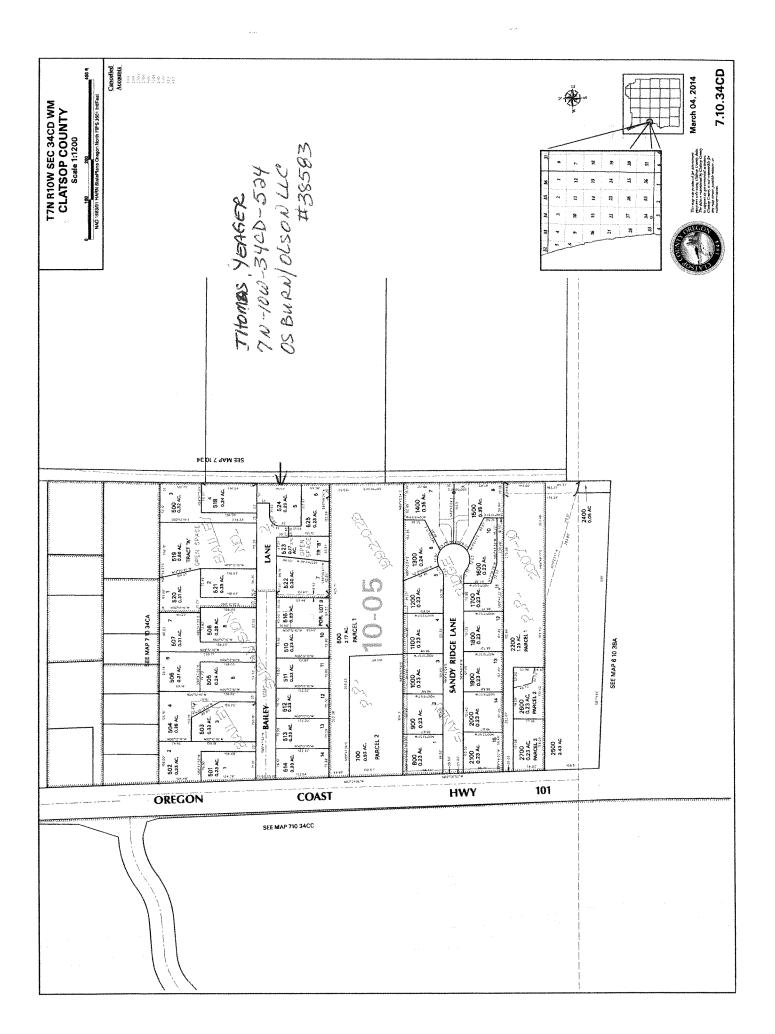
Department of univeronmental Quality North Coast Office 65 N. Highway 101, Suite G Warrenton, OR 97146

Telephone: (503) 861-3280 Fax: (503) 861-3259

NOTICE AUTHORIZING REPRESENTATIVE

1. Thomas P. Yla are	. ha	ve authorized
(Property Owner/Print Name)		
(Authorized Representative/ Print Name) to act a	s my agent	in performing
the activities necessary to obtain site evaluations, permits, and other treatment program services provided by the Department of Environ property described below in accordance with OAR chapter 340, discosts not satisfied by the Authorized Representative are my response.	nmental Qu vision 071.	ality on the
PROPERTY IDENTIFICATION:		
BAILEY LANE PHASE 2 LOT Property Situs or Road Address	5	
Property Situs or Road Address		
And described in the records of <u>CLATSOP</u> County as:		
Township 70 Range 100 Section 340 Map ID	Tax Lot #(s	s) 524
Township Range Section Map ID	Tax Lot #(s	s)
PROPERTY OWNER:		
Printed Name: Momas P. Yeager		
Signature:	Date:	32014
Address: 90 Pox 17359	Phone:	033-2(5.033)
City, State, Zip: Portland D2 97217	Fax: _	533-285-7448
E-mail Address: macadamtoundy @ macad	aurfou	ndy. Org
AUTHORIZED REPRESENTATIVE:	·	
Printed Name: GEORGE OWEN		i sa
Signature:	Date:	
Address: 89647 Manion Dr.		603-717-8681/717-2477
City, State, Zip: Warrenton, OR 97146	Fax: <u>5</u>	03-717-8681
E-mail Address:		

SECTION 1 - TO BE COMPLETED BY APPLICANT (may be filled in electronically by tabbing to each field) 1. Applicant Name/Property Owner: Thomas Yeager Mailing Address: Box 17359 City, State, Zip: Portland, OR 97217 Telephone: 503-285-0331 2. Property Information: County: Clatsop Tax Lot No.: _ 524 Township: 7N Section: _ 34CD 10W Range: Physical Address: Bailey Lane Gearhart, OR 97138 Block: Lot: 5 Subdivision Name (if applicable): Bailey Lane Phase 2 3. This proposed facility is for: An individual, single-family dwelling. Other. Describe the type of development, business, or facility and the provided services or products: 4. Permit or approval being requested: **✓** Construction-Installation permit for: ✓ New Construction Alteration ☐ Repair Non-water -carried facility requests (for example, pit privy/vault toilet for campgrounds). Authorization Notice for: Replacement of dwelling Bedroom addition Other changes in land use involving potential sewage flow increases SECTION 2 - TO BE COMPLETED BY CITY OR COUNTY PLANNING OFFICIAL 5. Property Zoning: R\ P.L. Zoning Minimum Parcel Size: 10000 6. The facility is located: A inside city limits inside UGB outside UGB If inside UGB, the proposed facility is subject to: City jurisdiction ☐ County jurisdiction ☐ Shared City/County jurisdiction 7. Does the proposed facility comply with all applicable local land use requirements: 🔣 Yes ☐ No If you answered "Yes" above, was this compliance based on: Outright compliance with local comprehensive plans and land use requirements (provide a citation to the applicable provisions) Conditional approval (provide findings and citation or attach a copy of the applicable land use decision) Measure 49 waiver (provide Department of Land Conservation and Development approval number) Either provide reasons for affirmative compliance decision or attach findings of fact: 8. Planning Official Signature: Print Name: C'hal Sweet Title: City Samue, strator. Telephone: 503 - 738 - 5501



15'x24' Intermittent Sand Filter* # Configured for loading rates up to 1.25 GPD/FT. Follow appropriate intermitant sand litter design criteria. 314 ARMAY AVENUE SUTHERLIN, OREGON 97479-9012 Orifice Shield 1-1/4" PVC Monifold PLYWOOD SIDES 112° 24" TELEPHONE: (541) 459-4449 15" FACSIMILE: (541) 459-2884 30" 3/4" PVC Lateral (w/ 1/8" dia. orifices) From OSI Effluent Pumping System FLUSHING VALVE PVC Lateral 1/8" Orifice (Volve Enclosure 1 PLYWOOD SIDES SIDE VIEW PVC Onifice 5 STANDARD ORIFICE SHIELD DETAIL SCALE: 1' = 1'-0" TOP VIEW - 15'X24' BOTTOM LESS SAND FILTER 10/72 ORIFICES LUSHING VALVE DETAIL SCALE: 1" = 1'-0" Note: See auditional details on NOW-ISF-S-3 Patent # 5,360,556 NOW-ISF-2024L-1 THOMAS YEAGER 710-1000-3400-524 @ 1998, Orenco Systems, Inc. OSBURN/OLSON LLC #38583 6" (- SOIL CAP -FILTER FASKE FOER DRAW POCK TOPOF LAT. 24" - DEG SAND NGL EL. NATURAL GRADE ___ 0.00 EL. TOP OF MANAFOLD - + 3.000 EL. PUMP BASE -STATIC HEAD -

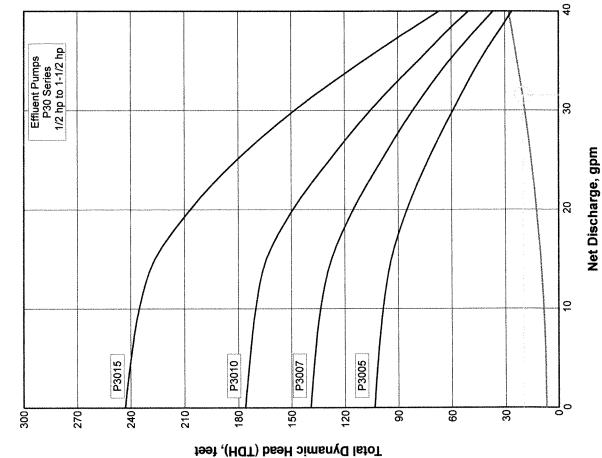
BOTTOMLESS SAND FILTER & MANAFOLD SECTION

Pump Selection for a Pressurized System

e include the accompanion management of the state of the	ze 1/8 inches	ce 5.0 feet	ng 2.00 feet	9 9	th 22.0 feet	ze 0.75 inches	le 40	del None	th 12.5 feet	ze 1.25 inches	le 40	old 7.0 feet	th 18.0 feet	ize 1.25 inches	ule 40	ize 1.25 inches	ter None inches	
- Input Parameters	Orifice Size	Residual Head at Last Orifice	Orifice Spacing	Number of Laterals per Cell	Lateral Length	Lateral Line Size	Lateral Pipe Class/Schedule	Distributing Valve Model	Manifold Length	Manifold Line Size	Manifold Pipe Class/Schedule	Lift to Manifold	Transport Length	Transport Line Size	Transport Pipe Class/Schedule	Discharge Assembly Size	Flow Meter	

Calculations	The same of the sa
Minimum Flow Rate per Orifice	0.43 gpm
Number of Orifices per Zone	72
Total Actual Flow Rate	31.5 gpm
Number of Lines per Zone	9
% Flow Differential 1st and Last Orifice	% 0.4
Lift to Manifold	7.0 feet
Residual Head at Last Orifice	5.0 feet
Head Loss in Laterals	0.5 feet
Head Loss Through Distributing Valve	0.0 feet
Head Loss in Manifold	0.4 feet
Head Loss in Transport Pipe	2.2 feet
Head Loss Through Discharge	5.0 feet
Head Loss Through Flow Meter	0.0 feet
'Add-on' Friction Losses	0.0 feet
Total Flow Rate 3' TDH 20	31.5 gpm 20.1 feet

7160MAS YEXEZN-10W-34CD-524 Osburn/Olson LLC #38583





814 AIRWAY AVENUE

SUTHERLIN, OREGON

97479

TOLL FREE:

(800) 348-9843

TELEPHONE

(541) 459-4449

FACSIMILE

(541) 459-2884

www.orenco.com

CLACKAMAS COUNTY "UNDERDRAIN MEDIA" OAR 340-071-100 (173)

1/15/2014

SIEVE	IND. WT. RETAINED	IND. % RETAINED	ACC. % RETAINED	ACC. % PASSING	SPEC LIMITS
	4.45.4				100
1/2	0.0	0.00%	0.00%	100.00%	100
3/8	145.9	17.48%	17.48%	82.52%	The state of the s
1/4	405.8	48.63%	66.11%	33.89%	18 - 100
#4	179.8	21.55%	87.66%	12.34%	
#8	75.8	9.08%	96.74%	3.26%	<i>J-10</i>
#10	15.9	1.91%	98.65%		24.0% max
#18	4.1	0.49%	99.14%	0.86%	
#100	1.5	0.18%	99.32%	0.68%	
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Constitution of the second of					

834.5

DRY WEIGHT BEFORE WASH -	834.5
DRY WEIGHT AFTER WASH -	829.6
ASTM TEST MEHTODS #C-117 AND #	C-136 IN USE FOR ANALYSIS.
THOMAS	YEAGER
7N-10W	-34cd-524

COMPANY NAME: GLACIER NORTHWEST, INC. CALPORTLAND COMPANY

CERTIFIED TECH: LYNN RINGHEIM (MARQUARDT) ODOT# 41361

CLACKAMAS COUNTY FILTER SAND 1/15/2014 " MEDIUM-SAND"

	SIEVE	IND, WT.	IND. %	ACC. %	ACC. %
		RETAINED	RETAINED	RETAINED	PASSING
100	3/8	0.0	0.00%	0.00%	100.00%
95 - 100	#4	7.4	0.70%	0.70%	99.30%
80 - 100	48	49.8	4.71%	5.41%	94.59%
45 - 85	#16	271.1	25.65%	31,06%	68.94%
15 - 60	#30	321.9	30.45%	61.51%	38.49%
3 - 15	#50	265.7	25.13%	86.64%	13.36%
0 - 4	#100	128.7	12.17%	98.82%	1.18%
	#200	8.4	0.79%	99.61%	0.39%
	PAN	2.4			
		1057.1	F.M.	2.84	
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		THE RESERVE AND ADDRESS OF THE PARTY OF THE		retarded angel automate a marcul pagayen	
		1 HUMAS	YEHGER		
		7N-100	<u>YEAGER</u> U-34CD-9	524	

COMPANY NAME: GLACIER NORTHWEST, INC. CALPORTLAND COMPANY COLMUMBIA RIVER SAND

CERTIFIED TECH: LYNN RINGHEIM (MARQUARDT) ODOT#41361

Receipt Number: 155638

Oregon Department of Environmental Quality

Warrenton Office

65 N Highway 101, Suite G Warrenton, OR 97146

Date Received 6/5/2014

Received From Macadam Aluminum &

(Check Name): Bronze Co.

Thomas Yeager PO Box 17359 Portland, OR 97217

For **T07N R10W S34 CD** Property TaxLot 500 Lot 5

At: Clatsop County **Bailey Lane**

Gearhart, OR 97138

Lot 5, Bailey Lane Phase 2

Current Payment

Check #

Amount Paid

Payment Type

1,620.00 Check

Money Order # Purchase Order 9472

Bank Number

19-10

Amount Applied

1,620.00

Total Amount Applied \$1,620.00

Onsite Fees

Base Fee:

1,520.00

Surcharge Fee:

100.00

Plan Review Flow Fee:

Pump Evaluation Fee:

Flow Fee:

Total Fee

Reinspection Fee:

\$1,620.00

Application Description

Application ID: 416018

Application Type: Construction-Installation Permit

Single Family Dwelling

System Type: Sand Filter: Bottomless - Residential

Pump Evaluation: No

Flow: 450

gallons/day

Payments

Previous Payments:

0.00

Current Payment:

1,620.00

Over Payment:

0.00

Total Payments: \$1,620.00 Receipt Amount: \$1,620.00

Date of Entry:

6/5/2014

Vicky Schiele

Receipted By:





Department of Environmental Quality Northwest Region North Coast Branch Office

65 N Highway 101, Suite G Warrenton, OR 97146 (503) 861-3280 FAX (503) 861-3259

October 23, 2008

Ryan Osburn & Cory Olson Osburn-Olson LLC 1369 Stillwater Ct. Seaside, OR 97138

IMPORTANT DOCUMENT – PLEASE READ CAREFULLY -This is not a construction permit-

RE: Site Evaluation Results - Site Approvals with Conditions & Site Denials

Bailey Lane Subdivision Phase 2 - Proposed Lots 1, 2, 3, 4, 5, 6, and 7

T7N, R10W, S34CD; Tax Lot No. 500, Clatsop County

Onsite Nos: 406906, 406907, 406908, 406909, 406910, 406911 and 406912

Dear Ryan & Cory:

The above-described properties were evaluated for suitability of onsite sewage disposal on the following date(s): October 8 and 9, 2008. Based on the evaluation, the following onsite wastewater treatment systems are approved for Lots 3, 4, 5, 6 and 7 as follows:

Initial system:

Bottomless Sand Filter

Replacement system:

Bottomless Sand Filter

NOTE: Site development plans accompanied by physical stake-outs on each of the lots approved for onsite sewage disposal will be required for review and approval prior to issuance of any construction/installation permits.

Lots 1 and 2 do not meet current rules for onsite sewage disposal in Oregon related to separation distance from permanent groundwater and area available on the lot to accommodate the initial and replacement disposal areas and maintain setback requirements for the development of a single-family dwelling.

De es of the site evaluations are incorded in the Site Evaluation Report that is enclose

Next Step - Applying for a Construction/Installation Permit

When you are ready to proceed with system construction, contact this office to get a permit application package. A permit must be issued by DEQ for each approved system before you can start construction.

Osburn-Olson LLC – Bailey Lane Subdivision Phase 2, Lots 1, 2, 3, 4, 5, 6 and 7 – Site Evaluation Results October 23, 2008
Page 2 of 2

Possible Alternatives for Lots 1 and 2

Although the areas evaluated on Lots 1 and 2 did not meet rules for onsite sewage disposal systems, it may still be possible to create an acceptable area on the property by extending the depth of existing sand fill areas. To fully demonstrate that bottomless sand filter systems can then be installed in the improved sand fill areas and meet all construction and setback requirements, detailed site development plans showing the locations of the proposed house, driveway, utilities, and the initial and replacement sand filter areas accompanied by physical staking with color-coded and labeled stakes must be provided for each lot.

NOTE: The Department's North Coast Branch Office (NCBO) in Warrenton must be 1) notified that the sand fill improvements and physical stakeouts are available for review and 2) in receipt of the detailed site development plans by **January 8, 2009**, which is 90 days after the date of DEQ's first visit to the property, to be included with this site evaluation. This and other alternatives are detailed in the Site Evaluation Report that is enclosed.

Request for Site Evaluation Report Review or Request for Variance

If you believe that an error was made in the evaluation of your property, you may apply for a Site Evaluation Report Review within 60 days of the site evaluation report issue date at a cost of \$460 per lot. If you would like to apply for a Variance from one or more of the Onsite Wastewater Treatment System rules, you may apply for a Variance at a cost of \$1360 per lot. If you are interested in either of these actions, please contact the undersigned for more details before you proceed.

Best wishes on a successful project. If you have any other questions about this report, please feel free to call me at (503) 861-3280.

Sincerely,

Connie M. Schrandt

Natural Resource Specialist

Counci M Schrandt

Enc: Site Evaluation Report

Cc: George Owe, 39647 Manior Dr., Warrenton, OR 97146

Site Evaluation Report For Onsite Wastewater Treatment System Suitability

Site Location: T7N, R10W, S34CD; Tax Lot No. 500, Clatsop County

Bailey Lane Subdivision Phase 2 - Proposed Lots 1, 2, 3, 4, 5, 6 and 7

Applicant: George Owen

Application Nos.: 407677, 407678, 407679, 407680, 407681, 407682, and 407683

Onsite Nos.: 406906, 406907, 406908, 406909, 406910, 406911 and 406912

Date(s) of Site Evaluation: October 8 and 9, 2008 DEQ Onsite Specialist: Connie M. Schrandt

Date of Report: October 23, 2008

General Description of Site Evaluations

Sewage contains disease-causing organisms and other pollutants that can cause adverse impacts to human health and the environment. An onsite wastewater treatment system must treat and dispose of sewage in a way that will not cause a public health hazard, contaminate drinking water supplies, or pollute public waters.

Proper treatment in an onsite system begins with primary treatment in the septic tank. The septic tank separates the solid particles in sewage from the liquid. The liquid that comes out of the septic tank is called effluent. The effluent may then be dispersed in the soil for further treatment or discharged into a secondary treatment device such as a sand filter or aerobic treatment unit prior to dispersal in the soil. For proper treatment, the effluent must slowly infiltrate into the underlying soil. Dissolved wastes and bacteria in the effluent are trapped or adsorbed to soil particles or decomposed by microorganisms. This process removes disease-causing organisms, organic matter, and most nutrients. Effluent that comes to the ground surface (through poor soils or other problems with the system) can be a possible health hazard because it may still contain some disease-causing organisms. Soil that drains too quickly may not give the effluent enough treatment and may result in groundwater contamination.

The purpose of the evaluation was to locate suitable soils in an area that is large enough for both the initial drainfield area and the replacement drainfield area. The criteria used for this site evaluation can be found in Oregon Administrative Rules (OAR) 340-071.

Soil test pits and other site features were evaluated during the site visit on October 8 and 9, 2008. For each lot, the following features were evaluated:

- Soil types how well they drain and other evidence of good soil structure for treatment
- Depth to groundwater
- Wells 'ocated on the site or adjacent'sites.
- slope escarpments, ground surface variations, topog upby
- Creeks or springs on the site or adjacent properties
- Whether the soils have been disturbed
- Setbacks from property lines, buildings, water lines, and other utilities
- Other site features that could affect the placement of the onsite system.

Approved Systems

Based on the evaluation of the site and soil conditions, the following onsite wastewater treatment systems are approved for Lots 1, 2, 3, 4, 5, 6 and 7:

oms wolf

Initial System: System Type: Bottomless Sand Filter

Minimum Septic Tank Size: 1000 gallons Minimum Dosing Tank Size: 500 gallons

Distribution Method: Low Pressure

Minimum Base Area of Filter: 360 square feet

Maximum Filter Depth: Varies (see Field Worksheets)

Replacement System: Same as for Initial System.

NOTE: Site development plans accompanied by physical stake-outs on each of the lots approved for onsite sewage disposal will be required for review and approval prior to issuance of any construction/installation permits. The plans and stakeouts must demonstrate that there is adequate area to accommodate both initial and replacement disposal areas and that all required setbacks (to property lines, underground utilities, building foundations, surface waters, potential man-made cuts resulting from house placement and construction, etc.) can be maintained.

The initial and replacement systems on each lot must be separated by 10 feet of undisturbed ground or by a reinforced concrete wall that is installed as part of the initial system. Also, above ground portions of the sand filter must be supported by a berm that extends out from the edges of the sand filter at a 2:1 slope.

Attached are the Field Worksheets and Plot Plans that show the test pit locations and other details of the site evaluation on each lot.

Site Limitations

Many sites have limitations that will affect either the location of the onsite sewage system or the type of system that can be allowed. The following describes the limitations found in this evaluation.

Permanent groundwater levels too close to ground surface

Description: "Permanent groundwater" refers to a water table or saturated zone that exists year-round. Treatment of sewage occurs in the soils around the drainfield area. If groundwater comes in contact with the sewage before it has been adequately treated in the soils, there are two concerns: 1) very little treatment occurs in saturated soils – the presence of air is required for good treatment; and ?) sewage may be "forced" to the surface where it poses a potential public health hazard.

111

1.

Rule requirement: AR 340-071-0290 (b)(A). For approve the pressure distribution systems, a minimum separation of 48 inches is required between the bottom of the disposal trenches (or seepage bed) and the upper level to which permanent groundwater is expected to rise. A bottomless sand filter system can be approved on sites with a minimum separation of 24 inches between the bottom of the filter and the upper level of permanent groundwater.

<u>Soil conditions observed:</u> The required 48-inch separation described in the rule for low-pressure distribution systems cannot be met on **Lots 3, 4, 5, 6 and 7,** and the required 24-inch separation for bottomless sand filter systems cannot be met on **Lots 1 and 2** due to shallow groundwater levels, as determined by measuring the depth to conditions associated with saturated soils and groundwater in the test pits.

Setback from property lines and building foundations

Rule requirement: Table 1, OAR 340-071. 10' setback required.

<u>Description</u>: The required property line setback allows construction of the system without trespass or damage to neighboring properties. The foundation line setback prevents too much liquid from causing the soil under the building to settle and potentially damage the building. <u>Site Conditions Observed</u>: The size and configuration of **Lots 1, 2, 3, 4, 5, 6 and 7** relative to residential development plans and maintaining required setbacks are such that only bottomless sand filter systems will be considered.

Clatsop Plains Special Considerations

<u>Description</u>: For properties within the area generally known as the Clatsop Plains and *of less than one acre*, the approved onsite system shall be either a sand filter system or a pressurized distribution system with a design sewage flow not to exceed 450 gallons per day.

Rule requirement: OAR 340-071-0400(5)

Site conditions observed: Lots 1, 2, 3, 4, 5, 6 and 7 are each less than one acre in size.

Alternatives for Lots 1 and 2

As described above, the site and soil limitations for Lots 1 and 2 do not provide enough separation from permanent groundwater levels to allow the installation of safe, reliable onsite sewage disposal systems. There may be some ways to overcome the site limitations. The following alternatives are suggested.

Create an acceptable area for onsite sewage disposal by extending the height of existing sand fill areas - To pursue this alternative, the existing sand fill areas must be extended in accordance with specifications for fill placement that are sufficient for subsurface sewage disposal. Each fill area must be extended such that the top surface area of fill meets the minimum area required for the approved systems, *including* 10-foot setbacks from the initial and replacement sand filters to the edges of the fill surface. Unless the entire lot is filled, a 3:1 sloped berm extending from the edges of the fill surface is required.

To fully demonstrate that bottomless sand filters can be installed in the improved sand fill areas and meet all construction and setoack requirements, detailed site development plans showing the locations of the proposed house, driveway, utilities, sand fill areas and the initial and replacement sand filter areas accompanied by physical staking with color of ded and be reached stakes must be provided for each lot.

NOTE: To be included with this site evaluation, detailed site development plans must be submitted to the NCBO and both the sand fill improvements and the physical stakeouts made available for review by **January 8**, **2009**, which is 90 days after the date of DEQ's first visit to the property. If the notification and plans are not received by this date, the properties will remain denied for onsite sewage disposal and any request for further evaluation will require new site

evaluation applications and fees. The property will be evaluated using DEQ rules in effect at the time of the new applications.

Try for an easement and put the system on a neighboring property - Test pits provided on an adjacent or nearby property for which an easement can be obtained and recorded may also be found suitable for onsite sewage disposal. If test pits on another tax lot are to be considered for an onsite system to serve the subject property, a new site evaluation and application fee will be required for each lot. Note that you will need to include written permission for DEQ entry onto the site from the owner of the other property, if you don't own the lot yourself. Also, the easement must be recorded with the county assessor's before DEQ can issue a favorable site evaluation report.

Apply for a variance from one or more rule requirement - You may request a variance from these rules, providing the Department with technical justification that demonstrates your proposed system will operate over an extended period of time, that it will not degrade the environment and that it will be protective of public health. A variance application, justification and exhibits, including this report, a land use compatibility statement, a list of adjoining property owners and detailed plans of your proposed system will be necessary. Technical advice from a knowledgeable consultant is recommended. A variance application fee of \$1360 per lot is required. A Variance Officer from DEQ will review the application and your property. A determination will be made, in writing, following an informational hearing.

Additional Conditions of Site Approval for Lots 3, 4, 5, 6 and 7

- 1. Sites on **Lots 3, 4, 5, 6 and 7** are approved for the types of onsite wastewater treatment systems described above. Peak sewage flow into each system is limited to a maximum of 450 gallons per day, with an average sewage flow of not more than approximately half of the peak sewage flow. This is normally sufficient to serve a single-family dwelling with a maximum of four bedrooms. Premature failure of the treatment system may occur if either of these flow limits is exceeded.
- 2. Any alteration of natural soil conditions (i.e. cutting or filling) in the acceptable area may void these approvals. Disposal areas shall maintain a 25-foot setback to any cut banks that may be created from an excavated cut for the house placement.
- 3. Both the initial and replacement disposal areas are to be protected from traffic, cover, development or other potential disturbance of natural soil conditions.
- 4. The areas must not be subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, roads, driveways and building down spouts.
- 5. These approvals are given on the basis that the lots will not be further partitioned or subdivided.

These are approvals are valid until each system is constructed in accordance with a DFQ construction permit. Technical rule change whall not invalidate his approval, but may require use of a different kind of system. If there is a bechnical rule change affecting this site approval, the Department will attempt to notify in writing the current property owner as identified by the county assessor's records. The site approval runs with the land and will automatically benefit subsequent owners.

Attachment: Field Worksheets and Plot Plans

7 EVALUATION FIELD WORKSHEET Range: 1) W Section: 340 D Tax Reference: 500-1015 Parcel Size: 10 709 59 39 Owner/Applicant: Oshada - Okon ILC / Oules Evaluator: (onn) 10.9.07 Inspection Date(s): Application Number: 407621 Mindle Lake -SOIL MATRIX COLOR AND CONDITIONS ASSOCIATED WITH SATURATION. DEPTH TEXTURE ROOTS, STRUCTURE, EFFECTIVE SOIL DEPTH, ETC... 5/611 1)-74 74-27 Pit 1 37.55 2.545-4/3.2 · 10050 50 0-12 Pc de 17-59 Pit 2 Pit 3 Pit 4 dune with adjustent-nightands to meet Landscape Notes: 9 10011200 Slope: 3.7, 41 Groundwater Type: No evidance Aspect: Other Site Notes: SYSTEM SPECIFICATIONS Design Flow: 450 gpd Initial System: Botto-11055 Sand Ender ATT Treatment Standard: Z

linear feet/square feet Maximum Depth: inches Minimum Depth: inches Disposal Facility: 360 Same as Instal Giden Replacement System: ATT Treatment Standard: Disposal Facility: _____ linear feet/square feet Maximum Depth: _____ inches Minimum Depth: _____ inches Special Conditions: Physical staking of integral & sector man 5412 Calar areas required With SIM LOUDISDOKERS STATE GOVERND DISCHES DISCHES STORE STATE OF A COURSE IS MIN approved for senage disonsal was will CONTRET DER - NORD SON KANAS

