34076

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Started: ___/___/_____ Completed: 3 / 19 / 2010 Pump Install: ___/___/_____

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address
North Slope Borough				Eni Petroleum ,

Well location: Latitude 70.51011699999998 **Longitude** -149.869316
Meridian U Township 013N Range 009E Section 05 , SW 1/4 of SE 1/4 of SW 1/4 of NE 1/4

BOREHOLE DATA: (from ground surface)
Suggest T.**M. Hanna's hydrogeologic classification system***
https://my.ngwa.org/NC__Product?id=a185000000BYub3AAD

	Depth From	Depth To
pad gravel fill	0	2
small gravel: gray black, sandy/silty, dry	2	18
small gravel: damp	18	20
black muck: silty, organics, wet	20	24
clay: black, silty, gravelly, dry	24	43
muck: black, silty/clayey, pebbles, wet-runny	43	51
small gravel: black, silty-mucky, wet	51	59
small gravel: very sandy, water bearing - 5gpm	59	71
water gravel: gray black, 20-30% sand-coarse, good saturation	71	81

Include description or sketch of well location (include road names, buildings, etc.):

North

Drilling method: ☒ Air rotary, ☐ Cable tool, ☐ Other _____
Well use: ☒ Public supply, ☐ Domestic, ☐ Reinjection, ☐ Hydrofracking
☐ Commercial, ☐ Observation/Monitoring, ☐ Test/Exploratory, ☐ Cooling,
☐ Irrigation/Agriculture, ☐ Grounding, ☐ Recharge/Aquifer Storage,
☐ Heating, ☐ Geothermal Exploration, ☐ Other _____
Fluids used: _____

Depth of hole: _____ ft Casing stickup: 4.5 ft
Casing type: A53B Steel Casing thickness: .375 inches
Casing diameter: 14 inches Casing depth: 76 ft
Liner type: _____ Depth: _____ ft Diameter: _____ inches
Note: 14" casing to 30'. 8" casing to 76'.

Well intake opening type: ☐ Open end, ☐ Open hole, ☒ Other screened
Screen type: _____, Screen mesh size: .06
Screen start: 70 ft, Screen stop: 76 ft, Perforated ☐ Yes ☒ No
Perforation description: _____ Perf from: _____ ft, Perf to: _____ ft, Perf from: _____ ft, Perf to: _____ ft
Gravel packed ☒ Yes ☐ No Gravel start: _____ ft , Gravel stop: _____ ft
Note: _____

Static water (from top of casing): 40 ft on ___/___/_____ Artesian well ☐
Pumping level & yield: 2.45 feet after 24 hours at 40 gpm
Method of testing: submersible pump
Development method: air surge Duration: _____
Recovery rate: _____ gpm

Grout type: bentonite Volume 3 sacks
Depth: From _____ ft, To _____ ft

Final pump intake depth: _____ ft Model: _____
Pump size: _____ hp Brand name: _____

Was well disinfected upon completion? ☐ Yes ☒ No
Method of disinfection: _____
Was water quality tested? ☐ Yes ☒ No
Water quality parameters tested: _____

Well driller name: Wayne Westberg
Company name: M-W DRILLING
Mailing address: PO BOX 110378
City: ANCHORAGE State: AK Zip: 99511
Phone number: (907) 945 - 3287
Driller's signature: _____
Date: _____/_____/_____

AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural Resources within **45 days of well completion**. Well logs may be submitted using the online well log reporting system available at:

https://dnr.alaska.gov/welts/

OR email electronic well logs to

dnr.water.reports@alaska.gov

Anchorage Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require that a copy of this well log be submitted to the Development Services Department/City within **30 days of well completion**.

City Permit Number: _____
Date of Issue: ___/___/_____

Parcel Identification Number: _____-_____-_____

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press

WELTS ID 34076

Department of Natural Resources
Division of Mining, Land & Water
550 w 7th Ave., Suite 1020
Anchorage, AK 99501-3562
dnr.water.reports@alaska.gov

Department of Environmental Conservation
Division of Environmental Health, Drinking Water Program
555 Cordova Street
Anchorage, AK 99501
dec.eh.drinkingwater.reports@alaska.gov

State Of Alaska

Well Record of Decommissioning

This form is intended to convey information regarding the decommisioning of a water well as required by both DEC and DNR. Add additional datasheets as necessary.

Well Decommissioner or Contractor		Well and Owner Particulars *	
Name:		Owner's name and address:	ENI Petroleum
Company:	M-W Drilling, Inc.	Well location - Street & number:	Oliktok Point, North Slope, Alaska
Address:	12200 Avion Street	Well location - Subdivision, Lot & Block:	
(continued):	Anchorage, AK 99516	Meridian: / Township: / Range: / Section: / Quarters:	
Phone:	907-345-4000	GPS (to 5 places): Latitude:	70.510036
Email:	mw@mwdrillinginc.com	Longitude:	-149.869345
		Datum:	
		Well Name or Number:	Camp Well #02

Please check all boxes that apply and provide all requested information. Do not check boxes that do not apply. * Note, Do not enter locational information for public water supplies - see note**, below.

Details of Former Well			Former Well Description (Not required if original well log attached).																	
Public water system? (See note **)	Yes: X	No:	Original Driller's Name:										Well depth (ft bls):	80	Date of completion:	4/10/2010				
If so, PWSID number:			Well Type	Drilled?	Yes: X	No:	Finish	Cased?	Yes: X	No:	N/A Unknown		Static water (ft bls):	29	Flowing artesian?	Yes:	No: X	N/A Unknown		
Single Family Domestic,?	Yes:	No:		Driven?	Yes: X	No:		Capped?	Yes: X	No:	N/A Unknown		Bedrock (ft bls):	no	Flood prone site?	Yes:	No: X	N/A Unknown		
Commercial/ Fishery?	Yes: X	No:		Jetted?	Yes:	No: X		Screened?	Yes: X	No:	N/A Unknown		Casing type:	steel	Well condition?	Good: X	Poor:	N/A Unknown		
Irrigation/Agricultural?	Yes:	No:		Dug?	Yes:	No: X		Perforated?	Yes:	No: X	N/A Unknown		Diameter (inches):	8	Grouted?	Yes: X	No:	N/A Unknown		
Heating / Cooling?	Yes:	No:		Unknown?	Yes:	No:		Well liner present?	Yes:	No: X	N/A Unknown		Stickup (ft):	1.7	Well house?	Yes:	No: X	N/A Unknown		

** Public Water System decommissioning may require additional documentation, please contact DEC in this regard.

Decommissioning notes:	Reason for well decommissioning:	Decommissioning process								
Include notes regarding any deviations from state approved methodes of decommissioning the well.	Out of use	Casing cut below grade?	Yes: X	No:	N/A Unknown	Well disinfected prior to decommissioning?	Yes:	No: X	N/A Unknown
Casing cut-off 2' below grade,		Casing fully removed?	Yes:	No: X	N/A Unknown	Plumbing removed from casing?	Yes: X	No:	N/A Unknown
casing filled with 3/8 " bentonite		Casing filled with bentonite?	Yes: X	No:	N/A Unknown	Liner (if any) removed?	Yes:	No:	N/A ~~Unknown~~ X
chips, screen filled with sandy	**Excavation and Fill Details**	Casing welded closed?	Yes: X	No:	N/A Unknown	Electric wiring removed from site?	Yes: X	No:	N/A Unknown
gravel, plate welded on	Excavation Depth (ft)? 2	Borehole refilled?	Yes:	No:	N/A Unknown	Attached an original well log?	Yes: X	No:	N/A Unknown
top of casing, chips mounded on	Type of fill used? Bentonite, gravel	Screened area filled with gravel?	Yes: X	No:	N/A Unknown	Well log listed at DNR?	Yes: X	No:	N/A Unknown
top of plate, pit back filled to grade.	Volume of fill (cu ft)?	Perforated area filled with gravel?	Yes:	No:	N/A Unknown	Local authorities notified?	Yes:	No:	N/A ~~Unknown~~ X
	# Bags of bentonite in casing? 46	Excavated pit refilled?	Yes: X	No:	N/A Unknown	DEC notified of decommissioning?	Yes: X	No:	N/A Unknown
		Pit area mounded?	Yes: X	No:	N/A Unknown	DNR notified of decommissioning?	Yes: X	No:	N/A Unknown

Signatures (* => are required)**

Owner***: David Hart - Operations Mgr — Date: 6/1/21

Decommisioner / Contractor***: Wayne E. Whitney — Date: 5/8/2021

1) Deliver this form to DNR and DEC within 45 days of decommissioning, as per state regulations 11 AAC 93.140.
2) Attach an original water well log, if available. A blank water well log form is available for use if the lithology and well construction details are known but the original water well log is missing.
3) Attach any maintenance or water usage records that may apply to this well and provide an adequate locational description, including maps or sketches. Use additional pages as needed.
4) This form is under development and is subject to change. Please submit suggestions for changes or improvements to either DNR or DEC at the addresses listed above.

Please attach schematics and photos to further document the information provided on this form. This is particularly important for public water supply wells and also any other wells that might impact the public water supply.

M-W Drilling, Inc.

♦P.O. Box 110389♦Anchorage, AK 99511♦
♦907-345-4000 ♦ 907-345-3287 Fax♦

Job No. 10-104

GROUNDWATER WELL AS-BUILT & LOG

Well Owner: ENI Petroleum Use of Well: Public
Legal Description: Oliktok Point Pad Well No. 2, North Slope, AK (OPP2)

CONSTRUCTION

Drill Method: Air Rotary with casing hammer Hole Size & Depth: 87.5'
Casing Size: 8 5/8" 14' Cased to: 76.12 30.26 Material: A53 Steel GR B / A53 Steel GR B Wall: 0.250" 0.375"
Well Completion: Open end ___ Screen X Perforated ___ Method: ___
Screen description: Riser & K packer. 70 to 76'; 0.060" slot 316SS to 86.51 tailpipe & plates to 87.5

Grout Notes: (3) Sack(s) of Bentonite - dry grout outside 14" surface casing
Well Development: Air surge - cleaned up rapidly - no sand.
Well Disinfected: N Notes: ___
Yield test at 40 GPM for 24 hour(s) with 2.45 of drawdown (DD) from static level(SWL).
Method: Submersible Static Water Level (SWL): 40
Start Date: 3/12/10 Completion Date: 3/19/10
Test Pump Date: 3/21 - 22/10 Final Pump Install Date: ___

WELL LOG (Well drilled on 45° slant)

Depth in feet from top of casing			Details of formations penetrated, size of material, color and miscellaneous details.
0	TO	4.5	Casing Stick Up
4.5	TO	6.5	Pad gravel fill
6.5	TO	22	Small gravel: gray black, sandy/silty, dry
22	TO	24	Small gravel: damp
24	TO	28	Black muck: silty, organics, wet
28	TO	47	Clay: black, silty, gravelly, dry
47	TO	54	Muck: black, silty/clayey, pebbles, wet-runny
54	TO	63	Small gravel: black, silty-mucky, wet
63	TO	75	Small gravel: very sandy, water bearing – 5 GPM
75	TO	85	Water gravel: gray black, 20-30% sand-coarse, good saturation
	TO		
	TO		WAYNE E. WESTBERG
	TO		President, Alaska Certified Master Groundwater Contractor
	TO		
	TO		
	TO		Note: recommend pump intake = 50' max

M-W DRILLING, INC.

Well As-Built Profile

Date: 3/23/10
Job No.: 10-104
Loc'n:
Oliktok Point, N. Slope
85' S of NW corner Pipe

Client: ENI Petroleum

GENERAL

Owner: ENI
Engineer:
City: Oliktok Point
County: North Slope
State: AK
Contact: Don Graika
Phone: 670-8501
Well Used For: Public
Date Drilled: 3/20/10
Date in Service:

Well No.: OPP2

All depths are from top of casing:

Well drilled in 45° slant

CONSTRUCTION

Drill Method: Air Rotary
Aquifer Type: Gravel
TD: 87.5 ft
Type Screen: Y Wire
Gravel Pack (Y/N).
Other: Natural
Drill Fluid Type: Air
Developed By: Air surge
Chemicals Used: None

MATERIALS

Surface Csg OD: 14"
Depth: 30.26
Matl: A53
Seal: Bent granules
Prod Csg OD: 8 5/8"
Depth: 76.17
Matl: A53
Seal:
Screen OD: 6T
Slot: 0.060"
Matl: 316SS
Packers/Plugs: Fig K
Notes:

ORIGINAL TEST DATA

Static Level: 26'
Pumping Level: 28.4
Drawdown: 2.45'
GMP: 40
Duration: 24 hours
Recovery: 6 minutes
Specific Capacity: 16.3
Sand Content: 0
Turbidity:
Other:

PUMP & MOTOR

Type:
GMP:
TDH:
PSI(dsi):
Pump Mfg:
Model No:
Serial No.:
Bowl OD:
Stgs:
HD/Stg:
Pump Eff:
Column OD:
Tube:
Shaft:
Wire Size:
Motor Mfg:
HP:
RPM:
Volt:
Amps (Lock):
(Full Load)
SF:
PF:
Eff:

Recent Repair History/Treatment/Test Data:

Date last serviced:
Reason:
SWL:
PWL:
GMP:
PSI
DD:
Specific Capacity:
Duration:
Last Treated:
How:
Results:

M-W Drilling, Inc.
TEST PUMP REPORT

Sheet 1 of 2
Date: 3/21/10

Conducted by: Kris, Wade, Carl — M-W Job #: 10-104
Owner: ENI Petroleum
Address: Oliktok Point Pad - North Slope, AK
Well Location: OPP Well No. 2 Site (OPP2)

Well Info: Total Depth: 87.5 — Depth of Casing: 76.12 — Screen: From 76 To 86.5
Casing Size: 8 5/8" — Screen Diameter: 6 1 — Screen Slot: 0.060"
Remarks: 316SS, 45° slant well, -20°F +

Pump Info: Intake depth: 43 — Pump size: 5HP — Water level meas.: Electric
Make: Grunfos — Model: — HP/Volt: 230V
Static water level: 25.95' — Avg. discharge: 40 — GPM, max, drawdown: 2.45'

Misc Pump Info: Pump on: Date: 3/21/10 — Time: 0900 — Mtr Reading:
Pump off: Date: 3/22/10 — Time: 0900 — Mtr Reading:

Time Clock	Time Elpsd	Water Level	Flow GPM	Remarks
0900	0	25.95		Start
	2	27.3	40	
	4	27.5		
	6	27.5		
	8	27.75		
	10			Indicator freezing
	12			
	14			
	16	27.91		
	18			
	20	28.03		
	25	28.04		
	30	28.13		
	35	27.91		
	40	28.04		
	45	28.11		
	50	28.11		
	55	28.24		
1000	60	28.3		

Time Clock	Time Elpsd	Water Level	Flow GPM	Remarks
	75	28.32		
	90	28.33		
	105	28.35		
1100	120	28.26		
30		28.32	40	
1200		28.35		
30		28.37		
1300		28.38		
30		28.40		
1400		28.40		
30		28.40		
1500		28.40		
30		28.40		
1600		28.40		
30		28.40		
1700		28.40		
1800		27.91		
1900		27.90		
2000		28.02		

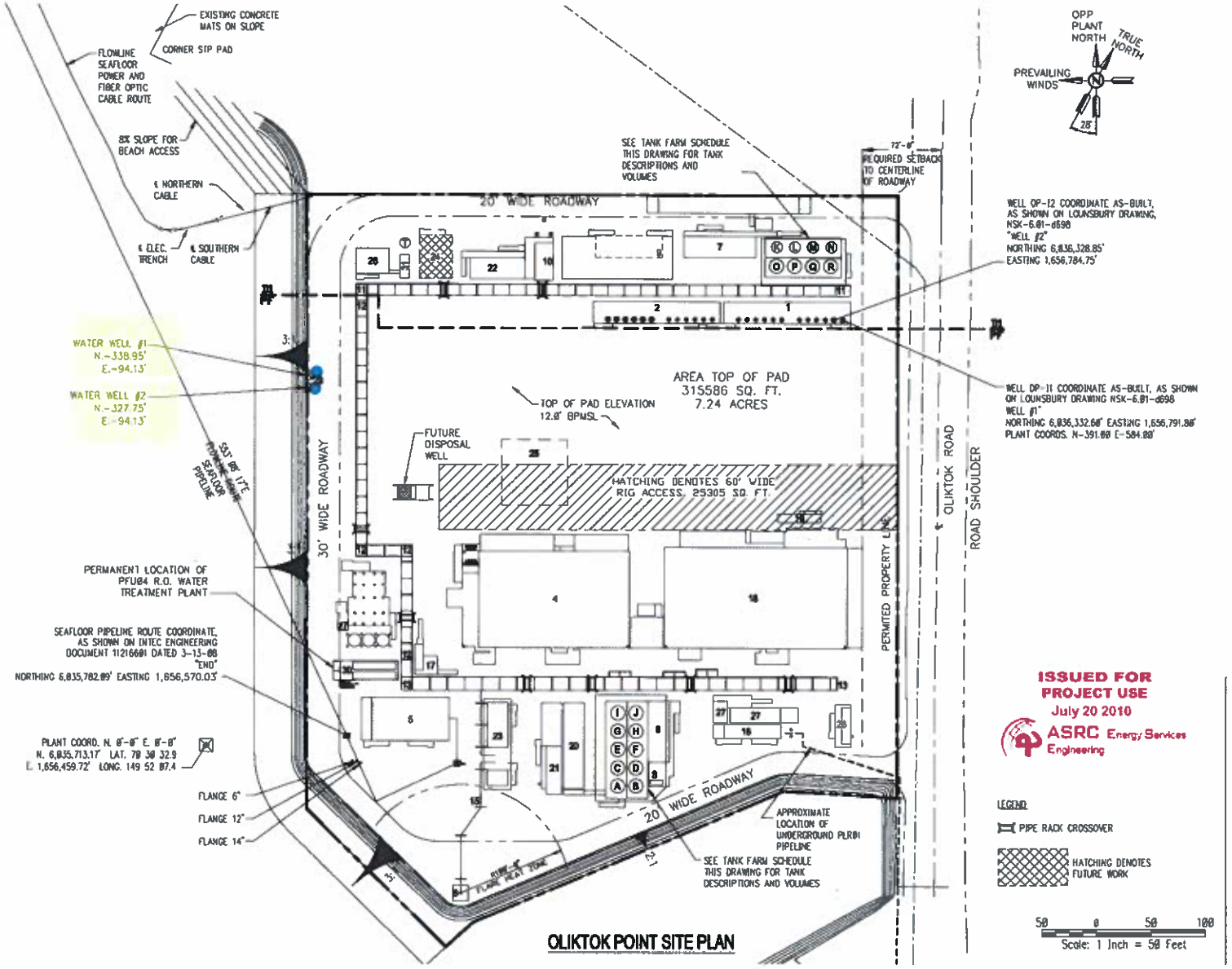
M-W Drilling, Inc.
TEST PUMP REPORT
Continuation Sheet

Owner: ENI Petroleum
Well Location: Oliktok Point Pad Well No. 2 (OPP2)

Sheet 2 **of** 2
M-W Job No. 10-104

Time Clock	Time Elpsd	Water Level	Flow GPM	Remarks
2100		28.12		
2200		28.02		
2300		28.02		
2400		28.03		
				3/22/10
0100		28.04		
0200				
0300				
0400				
0500				
0600				
0700				
0800				
0900		28.08		SHUTDOWN

Time Clock	Time Elpsd	Water Level	Flow GPM	Remarks
				Recovery
0900	0.05	27.81	0	
01		27.41		
	0.05	27.21		
02		26.99		
	0.05	26.43		
03		26.41		
	0.05	26.32		
04		26.18		
	0.05	26.18		
05		26.17		
	0.05	26.14		
06		26.13		
1100				Samples to AK Air
				Deadhorse



OPP Water Wells Location Map