WETLAND DETERMINATION DATA FORM - Alaska Region

Applicant/Owner: Alaska Energy Authority Investigator(s): WAD, RWM Local relief (concave, convex, none): convex Slope: 0.0 % / 0.0 ° Elevation: 951 Subregion: Interior Alaska Mountains Lat.: 63.266399503 Long.: -148.257249832 Datum: WGS Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation , Soil , or Hydrology significantly disturbed? Are Vegetation , Soil , or Hydrology naturally problematic? BUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area	
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Livetic Scill Present? Ves No	
Wetland Hydrology Present? Yes No Remarks: DWARF SHRUB CLEARING AMID HILLSIDE OF BETNAN	
VEGETATION - Use scientific names of plants. List all species in the plot.	
Absolute Dominant Indicator Dominance Test worksheet:	
Tree Stratum W Cover Species? Status	A)
1	')
2 O Species Across All Strata:4	3)
3 Percent of dominant Species	
	A/B)
5	
Sapling/Shrub Stratum 50% of Total Cover: 0 20% of Total Cover: 0 OBL Species 0 x 1 = 0	
1. Empetrum nigrum 35 FAC FACW Species 5.1 x 2 = 10.2	
2. Vaccinium uliginosum 10 FAC FAC Species 70 x 3 = 210	
3. <u>Ledum decumbens</u> <u>5</u> <u>FACW</u> FACU Species <u>9</u> x 4 = <u>36</u>	
4. Arctostaphylos rubra 15 ✓ FAC UPL Species 0 x 5 = 0	
5. Betula nana	(B)
6. Vaccinium vitis-idaea 5 FAC Prevalence Index = B/A = 3,046	
7. Loiseleuria procumbens 5 FACU FACU	
8 O Hydrophytic Vegetation Indicators:	
9 Dominance Test is > 50%	
10 0	
Total Cover: 80 Morphological Adaptations ¹ (Provide supporting da Remarks or on a separate sheet)	a in
1. Anthoxanthum monticola ssp. alpinum 2 FACU Problematic Hydrophytic Vegetation (Explain)	
2. Spinulum annotinum 2 FACU 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
3. Tedicularis labradorica 0.1 Thew	
4	
% Cover of Wetland Bryophytes 0	
o (where applicable)	
7	
9	
10 Hydrophytic	
Total Cover: 41 Vegetation	
50% of Total Cover: 2.05 20% of Total Cover: 0.82 Present? Yes No •	

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SOIL Sampling Point: SW13_T172_01

Color (moist) Moist Moi	Profile Description: (Descri	be to the depth Matrix	needed to docum	nent the inc		firm the abs		cators)			
9-2	<i></i> : .	r (moist)	%	Color (m	noist)	%	Type ¹	Loc ²	Texture	Remarks	
4-7 7.57K 3/4 100 Sord 7-11 107K 3/2 100 Sord 11-18 100 Sord 11-18 100 Sord Coorne Sand 11-19 100 Sord 11-19 100 Sord Coorne Sand 11-19 100 Sord 11-19 100 Sord 11-19 100 Sord Coorne Sand 11-19 100 Sord	0-2		100						Fibric Organics		
7-11 10YR 3/2 100 Coarse Sand 11-18 10YR 3/2 100 Coarse Sand Coarse Sand Coarse Sand Coarse Sand 1-1-18 10YR 3/2 100 Coarse Sand Coarse Sand 1-1-18 10YP, 2-10 Coarse Sand Coarse Sand 1-1-18 10YP, 2-10 Coarse	2-4 10YF	2/1	70	7.5YR	3/2	30		М	Hemic Organics	mixed matrix organic plus loamy sand in pa	
7-11 10YR 3/2 100	4-7 7.5YI	 R 3/4	100			-			Sand		
11-18 100	7-11 10YF		100						Sand		
Type: C=Concentration. D=Depletion. RM=Reduced Matrix 2 Location: PL=Pore Lining, RC=Root Channel. M=Matrix Hydric Soil Indicators: Histor Epipedon (A2)									Coarse Sand	-	
Hydric Soil Indicators: Histososi or Histe (A1) Alaska Color Change (TA4) Alaska Gleyed Without Hue SY or Redder Underlying Layer Underlying Layer Underlying Layer Underlying Layer Underlying Layer Underlying Layer Other (Explain in Remarks) Alaska Gleyed Rores (A12) Alaska Gleyed Rores (A13) Alaska Gleyed Rores (A15) Alaska Rodox (M14) Alaska Rodox (M15) Alaska Rodox									Course Sund		
Hydric Soil Indicators: Histososi or Histe (A1) Alaska Color Change (TA4) Alaska Gleyed Without Hue SY or Redder Underlying Layer Underlying Layer Underlying Layer Underlying Layer Underlying Layer Underlying Layer Other (Explain in Remarks) Alaska Gleyed Rores (A12) Alaska Gleyed Rores (A13) Alaska Gleyed Rores (A15) Alaska Rodox (M14) Alaska Rodox (M15) Alaska Rodox											
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Histosol or Histal (A1)	¹ Type: C=Concentratio	n. D=Depletio	n. RM=Reduce	ed Matrix	² Location	: PL=Pore	Lining. RC	=Root Cha	nnnel. M=Matrix	-	
Histic Epipedon (A2)	Hydric Soil Indicator	5 :		Indicat	ors for Pro	blematic	Hydric So	oils: ³			
Histic Epipedon (A2)	Histosol or Histel (A	1)		Alasl	ka Color Ch	ange (TA4	4		Alaska Gleyed Without H	ue 5Y or Redder	
Thick Dark Surface (A12)		•		Alasl	ka Alpine sv	vales (TA5	5)		Underlying Layer		
Alaska Gileyed (A13) Alaska Gileyed (N13) Alaska Gileyed (N14) Alaska Gileyed Pores (A15) 4 Give details of color change in Remarks	Hydrogen Sulfide (A	4)		Alasl	ka Redox W	ith 2.5Y H	lue		Other (Explain in Remark	rs)	
Alaska Gelyet (A15)	☐ Thick Dark Surface	(A12)									
Alaska Gleyed Pores (A15) Alaska Gleyed Pores (A15) Type: Depth (inches): Remarks: no hydric soil indicators observed Hydric Soil Present? Yes No ● Remarks: no hydric soil indicators observed Hydric Soil Present? Yes No ● Remarks: No logo Present? Hydric Soil Present? Yes No ● Remarks: No logo Present? Yes No ● Remarks: No logo Present? Yes No ● Remarks: Remarks: Adjusted Education (A15) Alaska Gleyed Present? Adjusted False (A15) Alaska Gleyed Present? Alaska Gleyed No ● Alaska Gleyed Present? Alaska Gleyed No ● Alaska Cleyed No ● Alaska Gleyed No ● Alaska Cleyed No ● Alaska Cleyed No ● Alaska Gleyed No ● Alaska Cleyed No ● Al	Alaska Gleyed (A13))								ydrology,	
Restrictive Layer (if present): Type: Depth (inches): Remarks: no hydric soil indicators observed Hydric Soil Present? Yes No Primary Indicators (invo or more are required) Hydric Soil present? Yes No Wettand Hydrology Indicators: Primary Indicators (anv one is sufficient) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Algal Mat or Crust (B4) Dry-Season Water Table (C2) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 0 Wettland Hydrology Indicators: Primary Indicators (invo or more are required) Water Marks (B1) Hydrogen Sulfide Odor (C1) Salt Deposits (B3) Other (Explain in Remarks) Surface Soil Cracks (B6) FAC-neutral Test (D5) Wettland Hydrology Present? Yes No Depth (inches): 0 Wettland Hydrology Present? Yes No Depth (inches): 0 Describe Recorded Data (Stream gauge, monitor well, aerial photos, previous inspection) if available: Remarks:	Alaska Redox (A14)						•		cocine		
Type: Depth (inches): Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Surface Water (A1) Sparsely Vegetated Concave Surface (B8) Sutration (A3) Saturation (A4) Saturation (A4) Saturation (A5) Saturation (Alaska Gleyed Pores	(A15)		# Give o	details of co	lor change	e in Remark	(S			
Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Marl Deposits (B15) Sediment Deposits (B2) Sediment Deposits (B3) Sediment Deposits (B4)		ent):									
Remarks: no hydric soil indicators observed HYDROLOGY Wetland Hydrology Indicators:	* *								Hydric Soil Present	? Yes ∪ No ♥	
HYDROLOGY Wetland Hydrology Indicators:	Deput (inches).										
Wetland Hydrology Indicators: Primary Indicators (any one is sufficient)											
Primary Indicators (any one is sufficient) Surface Water (A1) Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10) Sufface Water Table (A2) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Marl Deposits (B15) Presence of Reduced Iron (C4) Salt Deposits (C5) Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1) Drift Deposits (B3) Other (Explain in Remarks) Geomorphic Position (D2) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes No Depth (inches): 0 Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available:	HYDROLOGY										
□ Surface Water (A1) □ Inundation Visible on Aerial Imagery (B7) □ Drainage Patterns (B10) □ High Water Table (A2) □ Sparsely Vegetated Concave Surface (B8) □ Oxidized Rhizospheres along Living Roots (C3) □ Saturation (A3) □ Marl Deposits (B15) □ Presence of Reduced Iron (C4) □ Salt Deposits (C5) □ Sediment Deposits (B2) □ Dry-Season Water Table (C2) □ Stunted or Stressed Plants (D1) □ Drift Deposits (B3) □ Other (Explain in Remarks) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Microtopographic Relief (D4) □ Surface Soil Cracks (B6) □ FAC-neutral Test (D5) □ Seturation Present? Yes □ No ● Depth (inches): 0 ■ Wetland Hydrology Present? Yes □ No ● Depth (inches): 0 ■ De									Secondary Indi	cators (two or more are required)	
High Water Table (A2)		one is sufficie	nt)							` '	
Saturation (A3)											
Water Marks (B1)	_ ` `	3 ,									
Sediment Deposits (B2)	, ,				•	. ,				` '	
□ Drift Deposits (B3) □ Other (Explain in Remarks) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Shallow Aquitard (D3) □ Microtopographic Relief (D4) □ Surface Soil Cracks (B6) □ FAC-neutral Test (D5) Field Observations: Surface Water Present? Yes ○ No ② Depth (inches): 0 Water Table Present? Yes ○ No ② Depth (inches): 0 Saturation Present? Yes ○ No ② Depth (inches): 0 Depth (inches): 0 Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available: Remarks:		(D2)			_						
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(includes capillary fringe) Pescribe Recorded Data (stream gauge, monitor well, aerial photos, previous inspection) if available: Remarks:				De	epth (inches	s): 0		Wetla	nd Hydrology Presen	t? Yes ∪ No ♥	
Remarks:		_{e)} Yes ⁽	○ No •	De	epth (inches	s): 0					
	Describe Recorded Data	(stream gaug	e, monitor wel	l, aerial p	hotos, prev	ious inspe	ction) if ava	ailable:			
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		hserved									
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