

**SOIL TESTING RESULTS
REMEDATION #14238
USA BREW 1 AND PETERSON #1 & 2 LEASES
SECTIONS 17 & 20 T2N R56W
MORGAN COUNTY COLORADO**

**PREPARED BY:
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November 6, 2019

INTRODUCTION

Coral Production Corp. performed soil sampling activities wellheads and tank batteries at the Brew and Peterson leases in Morgan County, Colorado on October 23, 2019. This activity commenced once plugging and abandonment was completed and all surface equipment had been removed from the location. The sampling was conducted in accordance with the Remediation Workplan and Form 27 Project number 14238.

FIELD ACTIVITIES

Visibly stained soil was excavated and stockpiled on site for transportation to an approved disposal facility. Soil sampling was conducted at the locations of previously observed soil staining at the wellhead pads and tank batteries as identified in field Inspection Forms 688000325, 688000327, 688000329, & 688000331. Upon approval from the State that no further remedial activities are necessary, those areas will be contoured and re-seeded.

SAMPLING PROCEDURES

As outlined in the initial Form 27 attachment, 'Investigation/Remediation Workplan', samples were taken at each location identified on the attached sampling maps. Each sample was obtained from zero to one foot. Samples were obtained using a stainless-steel scoop and placed in a stainless-steel container following proper decontamination before and between each sampling, thoroughly mixed and placed in laboratory supplied glass containers. One composite sample was obtained from each of the 3 wellhead pads by collecting soil from six locations within a grid identified in the initial Workplan at each wellhead area and thoroughly mixing before placing in sampling containers. The wellhead grids were expanded from the original Workplan sampling grids to incorporate the areas where pumping units were located. Four composite samples were taken from each tank battery grid location by taking four to five samples across each grid line and thoroughly mixing, coning and quartering before placing in glass containers. One composite sample was obtained from each tank battery sampling grid for general chemistry samples. One sample was obtained from an area not affected by oil operations to establish a background value for inorganics.

LABORATORY METHODOLOGY

Soil samples were placed on ice and transported to SGS Laboratories in Wheat Ridge using chain of custody protocol. The samples were analyzed for Total Petroleum Hydrocarbons (TPH GRO, DRO – EPA method 8015) and BTEX. The general chemistry and background composites were analyzed for sodium adsorption ration (SAR – EPA method 6010), pH, and SAR and specific conductivity.

RESULTS

The sampling results from the site sampling indicated that none of the samples exceeded the Table 910-1 concentration levels for petroleum hydrocarbons. Table 1 provides a summary of the analytical results. The laboratory analytical report will be kept on file and will be made available upon request.

FINAL RECLAMATION

Upon confirmation that the soil concentrations meet Table 910-1 standards and pending approval from the Commission, the excavated areas will be re-contoured to original grade. A supplemental report will be provided summarizing the soil disposal at completion. Reclamation activities of all disturbed areas within the wellsite and tank battery areas will commence using a qualified contractor with experience in land reclamation. The surface owner utilizes the access road from County Road I to within 500' of the tank battery location. A map is attached identifying the roads that will be reclaimed.

Brew Peterson closure sampling

Table 1


Sample date 10/23/19
Soil Sample Results (MDL)

Sample ID	BREW WH	PETE 1 WH	TBW1	TBW3	TBW2	TBW4	TBE1	TBE2	Units	910-1 MCL
Constituent										
Benzene	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ug/kg	170
Toluene	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ug/kg	85k
Ethylbenzene	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ug/kg	100k
Xylene	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ug/kg	175k
TPH-Diesel Range Organics	246	66.2	45.2	64.4	40.3	23	47.6	29.6	mg/kg	500
TPH-Gasoline Range Organics	ND (5.0)	ND (5.2)	ND (5.1)	ND (5.2)	ND (5.1)	ND (5.2)	ND (5.1)	ND (5.1)	mg/kg	500
Sample ID	TBE3	TBE4	PETE2 WH						Units	910-1 MCL
Constituent										
Benzene	ND (0.50)	ND (0.50)	ND (0.50)						ug/kg	170
Toluene	ND (1.0)	ND (1.0)	ND (1.0)						ug/kg	85k
Ethylbenzene	ND (0.50)	ND (0.50)	ND (0.50)						ug/kg	100k
Xylene	ND (1.0)	ND (1.0)	ND (1.0)						ug/kg	175k
TPH-Diesel Range Organics	ND (9.6)	171	475						mg/kg	500
TPH-Gasoline Range Organics	ND (5.1)	ND (5.0)	ND (5.2)						mg/kg	500

Sample ID	TBW	TBE	BKGD	Units	910-1 MCL
Specific Conductance	614	263	138	umhos/cm	<4mmhos/cm
pH	8.46	8.67	6.21	su	6-9
Sodium Adsorption Ratio (SAR)	1.05	0.279	0.0851	ratio	<12
Calcium	63.5	38.2	13	mg/l	
Magnesium	5.77	4.35	2.68	mg/l	
Sodium	32.5	6.82	<2.0	mg/l	

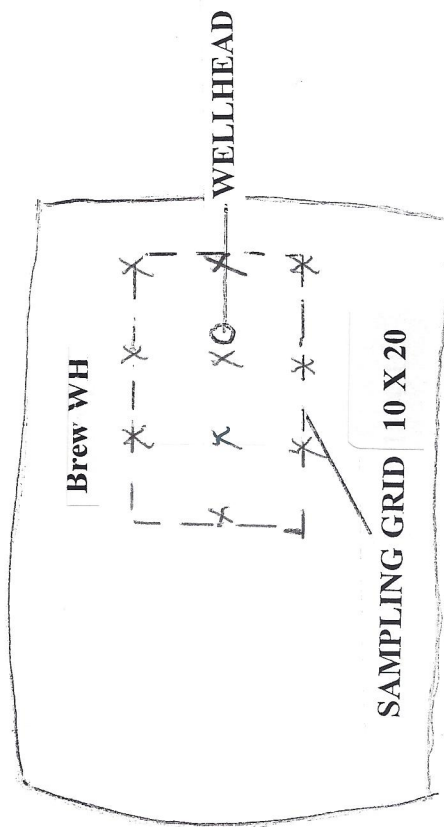
Legend:

ND = Not detected
MDL = Method Detection Limit
Sample designations:
TBW= tank battery west
BREW WH= lease wellhead
BKGD= background

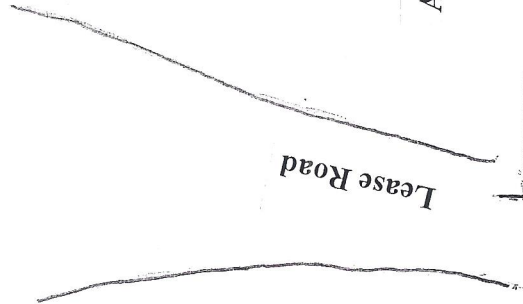
 SGS Wheat Ridge, CO Oct 31, 2019 18:53 pm											
Job Number:	DA21385										
Account:	Coral Production Corporation										
Project:	Brew/ Peterson										
Project Number:											
										Legend:	Hit
Client Sample ID:		BREW WH	PETE 1 WH	TBW1	TBW3	TBW2	TBW4	TBW	TBW	BKGD	BKGD
Lab Sample ID:		DA21385-1	DA21385-2	DA21385-3	DA21385-4	DA21385-5	DA21385-6	DA21385-7	DA21385-7A	DA21385-8	DA21385-8A
Date Sampled:		10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260B)											
Benzene	ug/kg	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.51)	-	-	-	-
Toluene	ug/kg	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-
Ethylbenzene	ug/kg	ND (0.50)	ND (0.51)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.51)	-	-	-	-
Xylene (total)	ug/kg	ND (1.0)	ND (1.0)	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-
GC Volatiles (SW846 8015B)											
TPH-GRO (C6-C10)	mg/kg	ND (5.0)	ND (5.2)	ND (5.1)	ND (5.2)	ND (5.1)	ND (5.2)	-	-	-	-
GC/LC Semi-volatiles (SW846-8015B)											
TPH-DRO (C10-C28)	mg/kg	246	66.2	45.2	64.4	40.3	23.0	-	-	-	-
Metals Analysis											
Calcium	mg/l	-	-	-	-	-	-	-	63.5	-	13.0
Magnesium	mg/l	-	-	-	-	-	-	-	5.77	-	2.68
Sodium	mg/l	-	-	-	-	-	-	-	32.5	-	<2.0
General Chemistry											
Solids, Percent	%	99.2	97.8	99.1	98.3	99	98.1	98.8	-	99	-
Specific Conductivity	umhos/cm	-	-	-	-	-	-	614	-	138	-
Sodium Adsorption Ratio	ratio	-	-	-	-	-	-	-	1.05 ^a	-	0.0851 ^a
pH	su	-	-	-	-	-	-	8.46 ^b	-	6.21 ^b	-
Client Sample ID:		TBE1	TBE2	TBE3	TBE4	TBE	TBE	PETE2WH			
Lab Sample ID:		DA21385-9	DA21385-10	DA21385-11	DA21385-12	DA21385-13	DA21385-13A	DA21385-14			
Date Sampled:		10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019	10/23/2019			
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil			
MS Volatiles (SW846 8260B)											
Benzene	ug/kg	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	-	-	ND (0.50)			
Toluene	ug/kg	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)			
Ethylbenzene	ug/kg	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	-	-	ND (0.50)			
Xylene (total)	ug/kg	ND (0.99)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)			

GC Volatiles (SW846 8015B)											
TPH-GRO (C6-C10)	mg/kg	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	-	-	ND (5.2)			
GC/LC Semi-volatiles (SW846-8015B)											
TPH-DRO (C10-C28)	mg/kg	47.6	29.6	ND (9.6)	171	-	-	475			
Metals Analysis											
Calcium	mg/l	-	-	-	-	-	38.2	-			
Magnesium	mg/l	-	-	-	-	-	4.35	-			
Sodium	mg/l	-	-	-	-	-	6.82	-			
General Chemistry											
Solids, Percent	%	99.1	99.2	99.4	98.9	99.1	-	98.3			
Specific Conductivity	umhos/cm	-	-	-	-	263	-	-			
Sodium Adsorption Ratio	ratio	-	-	-	-	-	0.279 ^a	-			
pH	su	-	-	-	-	8.67 ^b	-	-			
Footnotes:											
^a Calculated as: (Na meq/L) / sqrt [(Ca meq/L)+(Mg meq/L)/2]											
^b Analysis performed past recommended hold time.											

USA BREW 1 WELL
PAD

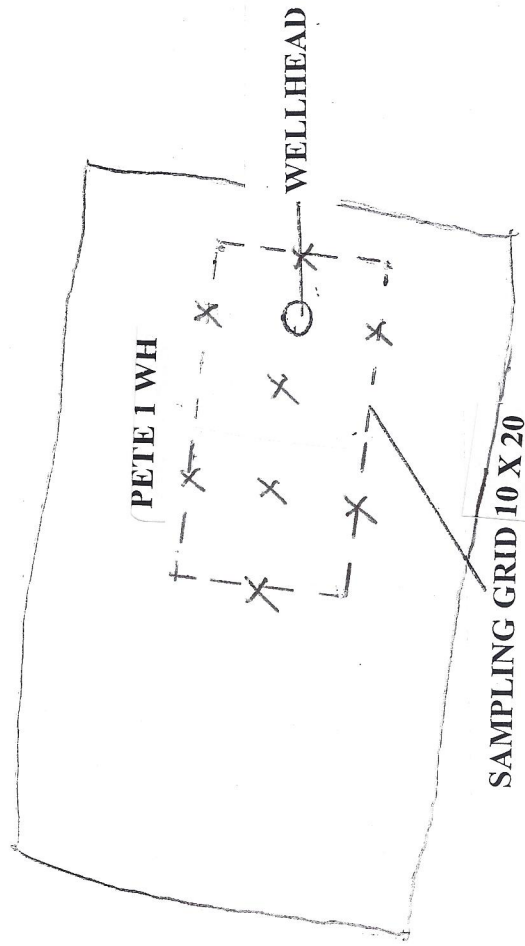


X — Sample locations for composite



Approximate Scale Feet
60 ft

PETERSON 1 WELL
PAD



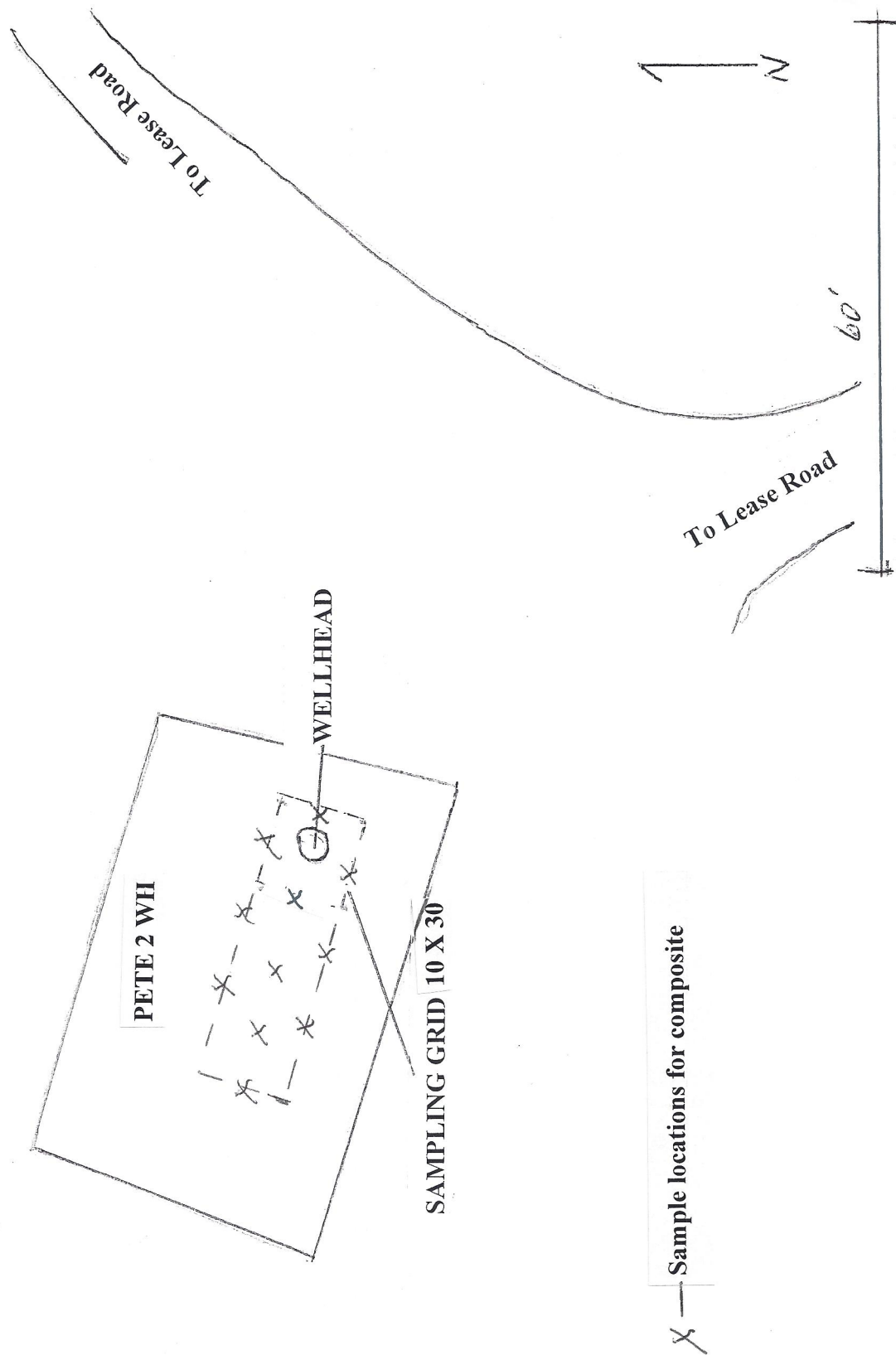
X — Sample locations for composite



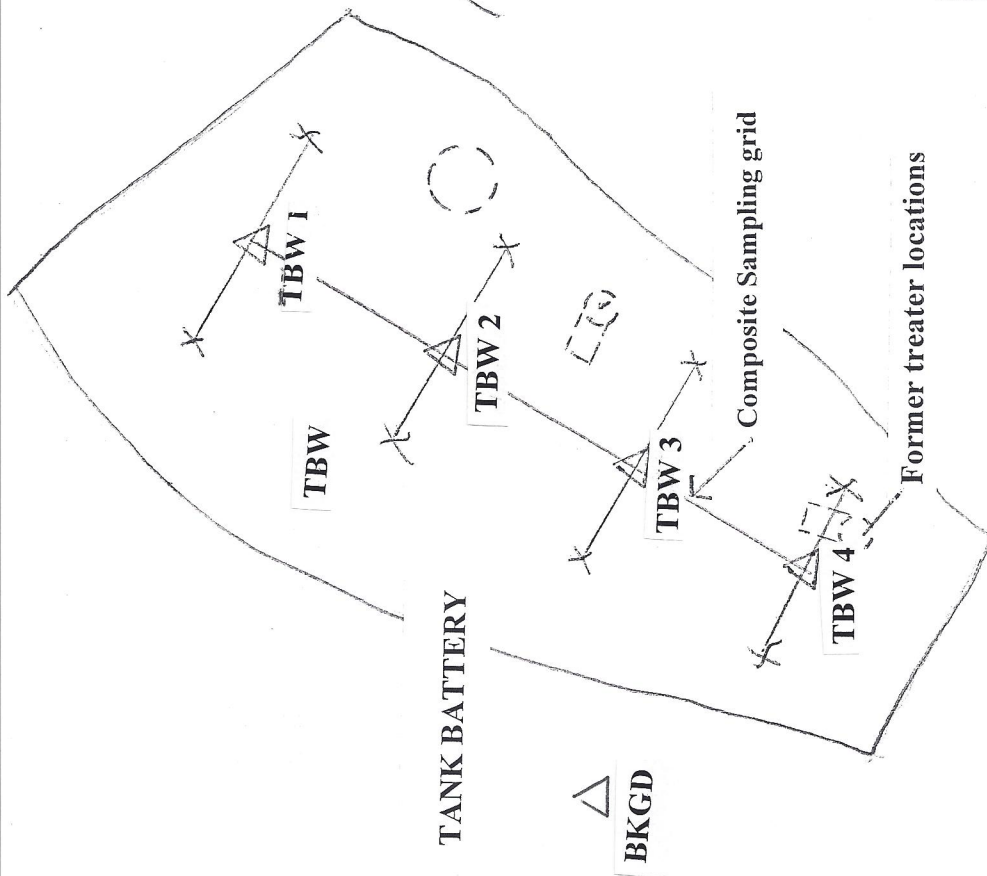
Approximate Scale Feet

50

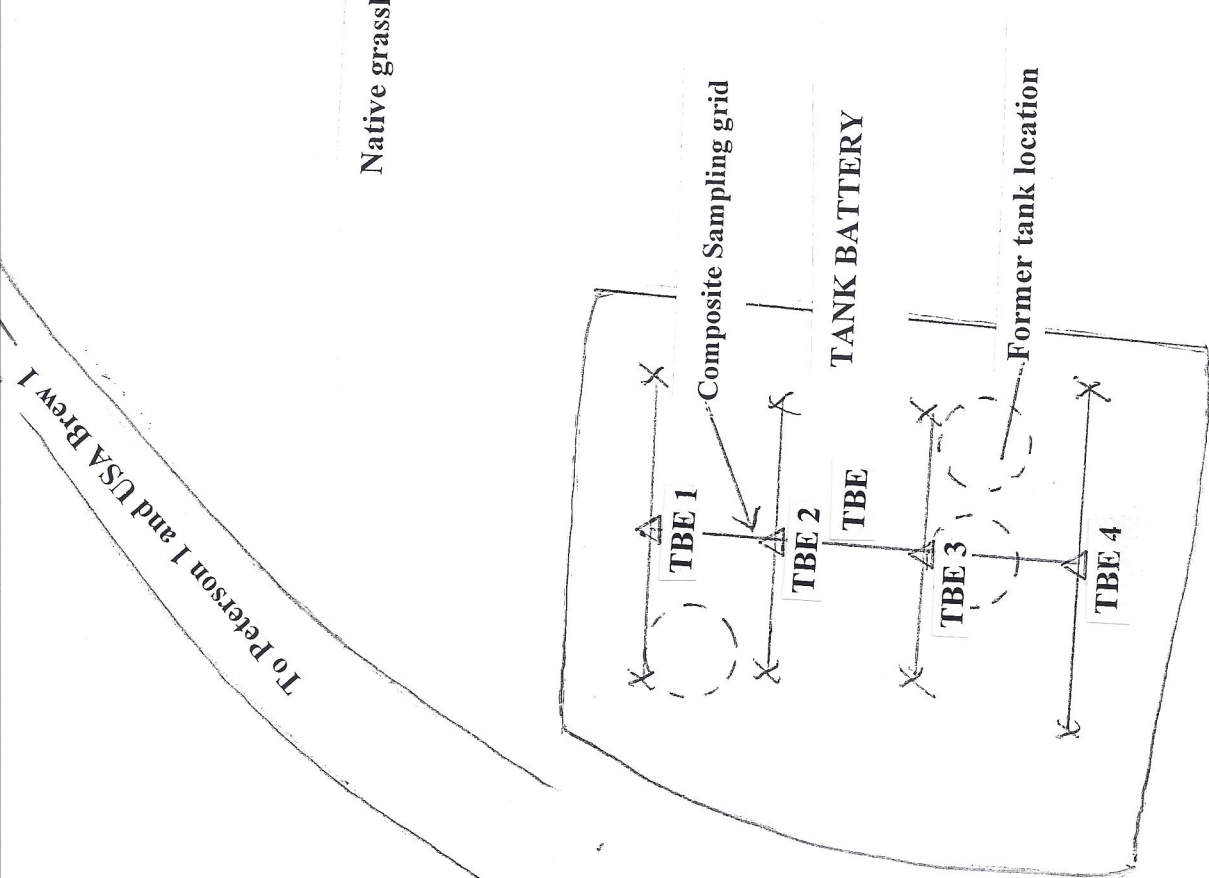
PETERSON 2 WELL
PAD



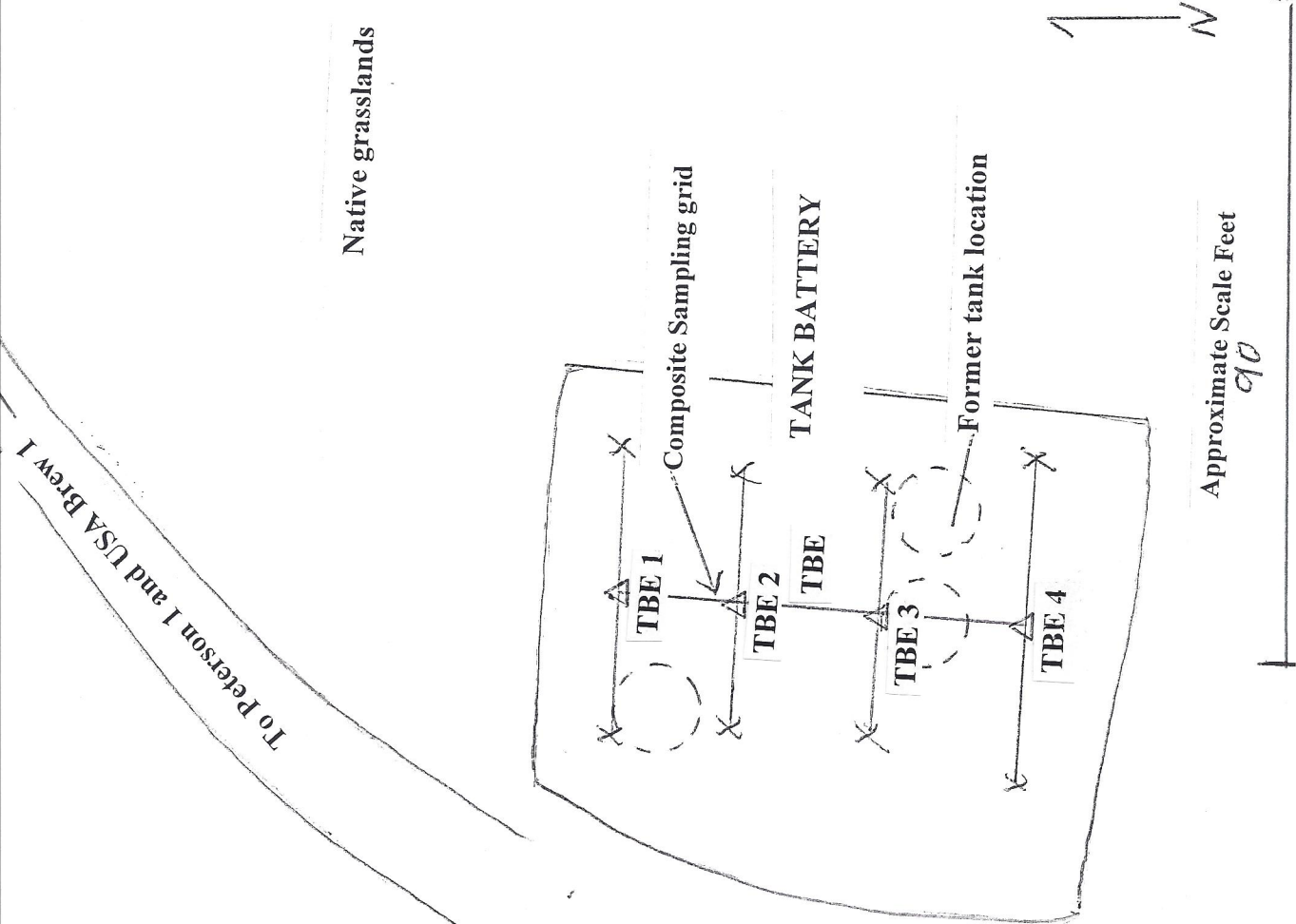
BREW/PETERSON SOIL SAMPLING LOCATIONS



- △ Sample ID locations
- X --Sample locations for composite



- △ Sample ID locations
- X --Sample locations for composite



- △ Sample ID locations
- X --Sample locations for composite

Brew

**BREW/PETERSON
ROAD
RECLAMATION**

Peterson 1

Brew/Peterson TB

TO STATE 1 SWD WELLPAD →

**LANDOWNER UTILIZES THIS
ROAD.**

