# *Final* Survey Report

Surveys of Potential Wetland Sites on Tinian in Support of the Commonwealth of the Northern Mariana Islands Joint Military Training Environmental Impact Statement/ Overseas Environmental Impact Statement

## **Prepared** for:



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Appendix B: Field Data Sheets

## Acronyms and Abbreviations

I Services
ease Area
orth-south
Inventory
ngineering
Command
on Service
tal Impact
Statement
ited States
Engineers
fe Service
ordnance
rld War II
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## CHAPTER 1 INTRODUCTION

## 1.1 OVERVIEW

The purpose of this report is to provide information regarding the identification of wetland habitats on Tinian in support of the Commonwealth of the Northern Mariana Islands (CNMI) Joint Military Training (CJMT) Environmental Impact Statement (EIS)/Overseas EIS (OEIS). Results of these surveys will be incorporated into an EIS/OEIS and Biological Assessment to assess the potential environmental impacts to wetland habitats from proposed Joint Military Training on Tinian.

## **1.2 PURPOSE**

The purpose of the wetland surveys is to determine whether potential wetland sites within the Military Lease Area (MLA) on Tinian meet the definition of U.S. Army Corps of Engineers (USACE) jurisdictional waters under the Clean Water Act (CWA) (33 U.S. Code 1344 Section 328). While this report describes the wetland attributes of the surveyed sites relative to the CWA, it should be noted that the USACE must make the official determination of whether those sites fall under their regulatory program. Only after the USACE determines their jurisdictional authority over these sites would a wetland delineation become necessary. If applicable, results of the wetland surveys will be used in CWA Section 404 permitting processes.

## **1.3 SURVEY PERSONNEL**

The lead personnel involved in performing the project tasks are listed in Table 1. Cardno was the prime contractor managing all survey efforts and report preparation. Subcontractors were Micronesian Environmental Services (MES) and Environet, which provided support for unexploded ordnance (UXO) detection and avoidance.

Table 1. Wettahu Survey Team					
Role	Name	Organization			
Project Manager	Melanie Hernandez	Cardno			
Task Manager	Rick Spaulding	Cardno			
Principal Investigator	John Gourley	MES			
Field Personnel	Dan Wooster, Lauren Ahillen	MES			
UXO Escort	Josh Singleton	Environet			

Table 1. Wetland Survey Team

## 1.4 SURVEY AREAS

Wetland habitats on Tinian are discrete areas of impermeable clay that impound rainwater. There are three potential wetland areas within the MLA (Figures 1 and 2):

- 1. Mahalang Complex an area consisting of a number of potential ephemeral wetlands in naturally low-lying areas, most of which are believed to be bomb craters.
- 2. Bateha Sites consisting of two potential ephemeral depressional wetlands.
- 3. Hagoi Wetland a permanent depressional wetland and open water complex of approximately 38 acres (ac) (15 hectares [ha]).

The specific Mahalang and Bateha sites that were surveyed for the current survey effort were selected based upon information from previous site visits and surveys (USFWS 1996; AECOS Inc. and Wil Chee Planning Inc. 2009; Department of the Navy [DoN] 2013, 2014).



Figure 1. Tinian



Figure 2. Potential Seasonal Wetlands within the MLA

#### **1.5 TINIAN PRECIPITATION PATTERNS**

The potential of low-lying areas in the Bateha and Mahalang areas of Tinian to pond water is based primarily on frequency and magnitude of rainfall events and percolation rates of the soils. Persistence of wetland-like conditions is governed by consistent above-average rainfall that occurs during the rainy season. Figure 3 shows the differing 'wet' and 'dry' seasons that are typically found on Tinian. The U.S. Geological Survey defines the wet season as occurring from July through October, which characteristically receives approximately 61% of the annual rainfall. The dry season usually occurs from February through May and receives approximately 12%. The remaining months of November, December, January, and June are transitional months when rainfall can be highly variable from year to year. Total annual rainfall is significantly influenced by tropical storms and typhoons; therefore, drought-like conditions are often attributed to a lack of storms (Gingerich 2002).

DoN (2014) reported the following characteristics of the Bateha and Mahalang sites:

- The Bateha sites were not connected to any stream or natural surface drainage systems.
- The 1999 Tinian U.S. Geological Survey topographical map did not show any connectivity to natural stream systems.
- These potential wetlands were not connected to groundwater sources during the 2012 and 2013 survey periods.
- The only water source supporting these potential wetlands was rainfall.

Although these characteristics were discussed in DoN (2014), they warrant repeating as the primary question being addressed in this report is whether certain sites in the Bateha and Mahalang areas are truly wetlands or simply ephemeral surface waters.

Figure 3 shows the probability of precipitation occurring at any given point in time during a typical year based on records from the Tinian International Airport. Historical precipitation values were averaged by month over time to provide a predication for the type and frequency of occurrence of precipitation that may occur on any given day. The graph plainly shows a distinct wet and dry season based on average precipitation. It should be cautioned that this data may not necessarily correlate with the amount of surface water at the Bateha and Mahalang sites during any specific point in time. For example, extremely high water levels were observed during field investigations conducted during the first week of December 2014 (Figure 4). Though precipitation was expected to be relatively low when examining historical average rainfall probabilities (Figure 3), there is a lag time between heavy rainfall events and when these potential wetland areas eventually dry out.

The annual 2014 rainfall value for the Tinian Airport was 92.56 inches or 11% above average. This was primarily due to the passage of several tropical cyclones in the vicinity of Tinian. The survey period was 1-6 December 2014 and the preceding months experienced above average rainfall levels. September rainfall was 69% above average while October was nearly normal at 91% of the average. With the grounds of the survey sites saturated and November rainfall 41% above average, the survey sites ponded water quickly and retained their high water levels throughout the survey period.

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Data Interpretation: "The fraction of days in which various types of precipitation are observed. If more than one type of precipitation is reported in a given day, the more severe precipitation is counted. For example, if light rain is observed in the same day as a thunderstorm, that day counts towards the thunderstorm totals. The order of severity is from the top down in this graph, with the most severe at the bottom."

http://weatherspark.com/averages/33110/Tinian-Island-West-Island-Northern-Mariana-Islands

Figure 3. Probability of Precipitation at Some Point in the Day for Tinian



Figure 4. Monthly Rainfall Summaries from Tinian International Airport (2012, 2013, and 2014; average is from 2000 thru 2012) (Source: WorldWeatherOnline 2015) This page intentionally left blank.

## CHAPTER 2 METHODS

### 2.1 GENERAL METHODS

Wetland surveys were undertaken during December 1-6, 2014 to determine if selected potential ephemeral surface water features within the MLA contain the wetland indicators as defined by the USACE: wetland hydrology, hydrophytic vegetation, and hydric soils. The 1987 USACE Wetland Delineation Manual (USACE 1987) and 2012 Regional Supplement for Hawai'i and Pacific Islands (USACE 2012) were used as the basis for evaluating the wetland indicators of each potential wetland site.

- *Hydrology*: Hydrology was characterized based upon the presence of surface water or saturated soils and connection to any stream or natural surface drainage systems.
- *Hydrophytic Vegetation*: The occurrence of obligate wetland species was assessed to characterize the presence of hydrophytic vegetation.
- *Hydric Soils*: Determination of the presence of hydric soils was conducted by digging test pits as close to the ponded water level as possible and classifying soils via a Munsell Color Chart. Sampling of paired soil test pits was not conducted as the goal of the current survey effort was to determine if hydric soils were present at each site, not delineate wetland boundaries.

The potential wetland sites were either shallow depressions (Sites BD1, BD2, MD3, and M11) or steeply sloped inverted cones (MC1, M07, MC2, and M10) which are believed to have been created from exploding ordnance after World War II (DoN 2013).

For comparison purposes only, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps were reviewed (USFWS 2014) and are provided in this report. However, the conclusions arrived at in this report were based on field data collected during the survey period.

## 2.2 MAHALANG COMPLEX

The Mahalang Complex is located on a flat area south of Lake Hagoi (see Figure 2). More than 20 individual potential wetlands form the complex and are located within a matrix of grasslands, herbaceous scrub, tangantangan, and mixed secondary forest. Although sizes of these sites were not given in previous reports, AECOS and Wil Chee Planning (2009) estimated the two largest features as approximately 1.2 ac (0.5 ha) each. The majority of the potential wetlands are characterized as likely bomb craters resulting from the detonation of stored munitions after WWII. The introduced grass Pennisetum polystachion, mixed with various species of weedy vines, dominates the sides of the craters. Other potential wetlands in the complex consist of shallow depressions with weedy vines and herbs. One of these potential wetlands, site MD3, had been found to support a dense growth of the obligate wetland plant species *Ipomoea aquatica* (DoN 2014).

Potential wetland sites that are known to have ponded water during previous 2012 and/or 2013 studies (DoN 2014) are shown in Figure 5. Of these, six sites were sampled for this study: four craters (MC1, MC2, M07, and M10) and two depressional sites (M11 and MD3). The crater sites are assumed to be representative of other craters within the Mahalang area. In addition to recording general observations and mapping wetland features, a minimum of two soil test pits were dug at each site close to the water's edge (if ponded water was present) to determine presence/absence of hydric soils.



Figure 5. Locations of Mahalang Potential Wetland Sites That Had Documented Ponded Water during at Least One season during the Previous DoN (2014) Study

(*Notes*: Potential wetland sites addressed in this study are labeled. Location data are superimposed on an undated aerial photograph; figure modified from DoN [2014].)

## 2.2.1 NWI – Mahalang Complex

The U.S. Fish and Wildlife Service (USFWS) NWI program documented only 12 wetlands in the central Mahalang area (Figure 6) (USFWS 2014). The size of many of the Mahalang sites are shown on the NWI map. Without having the full array of wetlands currently known from this area included on the NWI map, it is not possible to establish a direct correlation between the depicted NWI wetlands and those being assessed in the current study. Based on examining the general distribution of wetlands, it is assumed that five of the targeted Mahalang wetlands are included on the NWI map. Although the NWI classifies all the Mahalang wetlands as marshes (e.g., palustrine), based on recent field investigations, they appear to function more like ephemeral ponds (e.g., lacustrine).



Figure 6. Mahalang Wetland Sites Based on the USFWS NWI (USFWS 2014)

### 2.3 BATEHA SITES

Two potential depressional wetland sites in the Bateha area were identified for assessment and are addressed in this report: BD1 and BD2 (Figure 7). These sites were documented as ponding water during previous 2012 and 2013 DoN studies. In addition to recording general observations and mapping wetland features, four soil test pits were excavated for BD1 and five soil test pits for BD2.



**Figure 7. Bateha Sites BD1 and BD2** (*Notes*: Depicted on an undated aerial photograph; figure modified from DoN [2014].)

#### 2.3.1 NWI – Bateha Sites

Bateha Site BD1 is the larger of the two Bateha sites. The USFWS NWI lists BD1 as a 7.1-acre (2.9-ha) roughly circular depression that is classified as *palustrine, emergent, persistent, temporary flooded* (PEM1A) (Figure 8). Based on local history, this area was once used as a racetrack.



Figure 8. Bateha Site BD1 Based on the USFWS NWI (USFWS 2014)

Bateha Site BD2 is irregularly shaped and is a relatively deeper depressional basin compared to BD1. The USFWS NWI lists BD2 as a 5.8-acre (2.3-ha) wetland site that is classified as *palustrine, emergent*, *persistent, temporary flooded* (PEM1A); *palustrine, emergent, persistent, seasonally flooded* (PEM1C), and *palustrine, emergent, persistent, semipermanently flooded* (PEM1F) (Figure 9).



Figure 9. Bateha Site BD2 Based on the USFWS NWI (USFWS 2014)

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### 2.4 HAGOI WETLAND

Although Hagoi has not been identified by the USACE as a jurisdictional wetland, it is generally assumed to meet the definition of a jurisdictional wetland under the CWA. Hagoi wetland is surrounded on three sides by WWII-era paved roads (Figures 2 and 10). The area of interest is immediately adjacent to a road approximately 2,800 ft (853 m) in length and runs in a N-S direction along the eastern side of the Hagoi wetland. For purposes of this report, this particular road section is designated Hagoi Road. The road bed is raised approximately 5 ft (1.5 m) above surrounding terrain.

The survey area includes the narrow strip of upland which is located between Hagoi Road and the Hagoi wetland. In order to determine the potential wetland/upland interface to the east of the Hagoi wetland and west of Hagoi Road, six soil test pits were dug approximately 50 ft (15 m) west of Hagoi Road at approximate 400-ft (120-m) intervals (Figure 11). The site is level with a slight <1% slope towards the Hagoi wetland. Test pits were dug to a depth of 16-20 in (41-51 cm) until hard, compacted material was encountered. At one location (soil test pit #2) concrete was found within a few inches of the soil surface so the test pit was relocated further away from the roadway.



Figure 10. Hagoi Wetland and the Eastern Survey Area



Figure 11. Hagoi Wetland Complex Depicting the Soil Test Pits adjacent to the Western Side of Hagoi Road



A 1995 USFWS vegetation map of the Hagoi wetland (USFWS 1996) showed a band of *Phragmites karka* and large patches of *Shoenoplectus subulatus* (=*Scirpus litoralis*) around the perimeter of Lake Hagoi. There were also patches of *Acrostichum aureum* and the grass *Paspalum distichum*. All of these species are indigenous to Tinian (Raulerson 2006). As of 2012, vegetation appears to have changed relative to that mapped in 1995 with the occurrence of additional species, such as the indigenous *Hibiscus tiliaceus*, and the expansion of existing species into previously open water areas of the lake, particularly *Shoenoplectus*. The expansion of *Shoenoplectus* into the interior of Hagoi has resulted in a reduction of open water, with particularly rapid changes documented between 2001 and 2013 (DoN 2013).

## 2.4.1 NWI – Hagoi Wetland

Although the USFWS NWI map (Figure 12) shows the edge of the Hagoi wetland encroaching to within approximately 330 ft (100 m) of Hagoi Road, field investigations were needed to determine the proximity of wetland/upland interface between the road and the wetland proper.



Figure 12. Hagoi Wetland Complex Based on the USFWS NWI (USFWS 2014)

### 2.5 UXO CONSIDERATIONS

Wetland surveys require subsurface soil testing which includes digging a hole by hand shovel approximately 2 ft (0.6 m) deep and 2 ft (0.6 m) in diameter. This proposed soil disturbance necessitates detection of munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) by a UXO Technician using a DGM or magnetometer prior to digging. If UXO were determined to be present at the site of a proposed soil test pit, another site would be chosen that avoided MEC/MPPEH. Mr. Joshua Singleton was the UXO Technician who accompanied the field personnel for this project.

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## CHAPTER 3 RESULTS

### 3.1 MAHALANG COMPLEX

Using data collected during previous studies (DoN 2013, 2014) and the current study, Table 2 summarizes various physical and ponding characteristics for the six Mahalang sites under study. Appendix A provides a photograph of each site during the 2014 survey and a representative dry season.

		Crater	Length of Area of Previously Ponded Waters			Area of Existing Ponded Waters			
Site	Crater Diameter at Rim (N-S/E-W)	Area at Rim	Surface Water Feature	7-8 Jan 2013	30-31 Dec 2013	3-4 Dec 2014	7-8 Jan 2013	30-31 Dec 2013	3-4 Dec 2014
MC1	No data	No data	None observed	No data	194 m <sup>2</sup>	317 m <sup>2</sup>	No data	132 m <sup>2</sup>	277 m <sup>2</sup>
MC2	34.7 / 39.5 m	998 m <sup>2</sup>	None observed	No data	No data	$176 \text{ m}^2$	No data	No data	$54 \text{ m}^2$
MD3	n/a – depressional basin	n/a	None observed	1,879 m <sup>2</sup>	nm	nm	Dry	Dry	nm
M07	32.6 / 30.1 m	867 m <sup>2</sup>	1 feature – 26.1 m	No data	127 m <sup>2</sup>	265 m <sup>2</sup>	No data	Dry	191 m <sup>2</sup>
M10	37.0 / 34.4 m	964 m <sup>2</sup>	1 feature – 6.1 m	No data	217 m <sup>2</sup>	609 m <sup>2</sup>	No data	91 m <sup>2</sup>	609 m <sup>2</sup>
M11	n/a – depressional basin	n/a	None observed	3,332 m <sup>2</sup>	nm	4,630 m <sup>2</sup>	Dry	Dry	Dry

Table 2. Select Physical and Ponding Characteristics of the Mahalang Sites

*Notes*: m<sup>2</sup> = square meters; n/a = not applicable; nm = not measureable. All measurements were made with a Trimble Geoxh and Tornado antenna. Historical comparison data from January and December 2013 are from DoN (2014).

## 3.1.1 Mahalang Site MC1

This crater site is a roundish steeply sloped tree-less conical depression. Table 2 shows select physical and ponding characteristics for this crater site and Figure 13 depicts the perimeters of the previously ponded water line and existing water line as of December 4, 2014. Water levels were the highest observed during the current field investigation with previously ponded waters covering an area of 3,412 square feet ( $ft^2$ ) (317 square meters [m<sup>2</sup>]) while ponded waters were 2,982 ft<sup>2</sup> (277 m<sup>2</sup>). On December 30-31, 2013, the area of previously ponded waters was estimated at 2,088 ft<sup>2</sup> (194 m<sup>2</sup>) while ponded waters covered 1,421 ft<sup>2</sup> (132 m<sup>2</sup>) (Table 2).

Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland. Based on multiple site visits since 2012, there is no reason to suspect that wetland vegetation was growing below the water's surface.

#### Summary of Site Characteristics for Mahalang Site MC1 (see Appendix B, *Field Data Sheets*, for details)

### Hydrology

The typical crater site meets the hydrology criteria as an inverted cone-shaped depression with steep sloping sides containing ponded water.

**Vegetation** 

No obligate or facultative wet wetland plant species were recorded from this site.

<u>Soils</u>

Both soil test pits showed indications of hydric soils. The "unconsolidated bottom" designation by the USFWS NWI (USFWS 2014) may refer to a layer of viscous muck consisting of partially decomposed organic material at the bottom of the site.

Connectivity to waters of the U.S.

No surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PUBF (palustrine, unconsolidated bottom, semi permanently flooded) (Figure 6) (USFWS 2014).



Figure 13. Mahalang Site MC1 Depicting Soil Test Pits and Perimeters of the Previously Ponded Water Line and Existing Water Line as of December 4, 2014

(*Notes*: Perimeter of previously ponded waters was defined by the demarcation line of dead vegetation. Locations of the two soil test pits are also noted. Data are superimposed onto an undated aerial photograph.)

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## 3.1.2 Mahalang Site MC2

This site is typical of the other crater sites: a roundish, steeply sloped tree-less conical depression. Table 2 shows select physical and ponding characteristics for this crater site and Figure 14 depicts the perimeters of the previously ponded water line and existing water line as of December 4, 2014. The north-south (N-S) diameter at the crater rim was 114 ft (34.7 m) while the east-west (E-W) diameter was 130 ft (39.5 m). The vertical depth of this crater was estimated to be 17 ft (5.2 m). The area of this site at the crater rim is 10,742 ft<sup>2</sup> (998 m<sup>2</sup>).

During this field investigation, ponded waters covered an area of 581 ft<sup>2</sup> (54 m<sup>2</sup>) while the area of previously ponded waters measured 1,894 ft<sup>2</sup> (176 m<sup>2</sup>). There are no historical data to compare with these findings.

Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland.

Summary of Site Characteristics for Mahalang Site MC2 (see Appendix B, *Field Data Sheets*, for details)

<u>Hydrology</u>

The typical crater site meets the hydrology criteria as an inverted cone-shaped depression with steep sloping sides containing ponded water.

Vegetation

No obligate or facultative wet wetland plant species were recorded from this site.

<u>Soils</u>

Both soil test pits showed indications of hydric soils.

Connectivity to Waters of the U.S.

A short non-distinct surface drainage feature was found along the west side of the crater. No other surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type as Shown on the USFWS NWI Map:

NWI mapped as PEMF (palustrine, emergent, semipermanently flooded) (Figure 6) (USFWS 2014).



Figure 14. Mahalang Site MC2 Depicting the Soil Test Pits and Perimeters of the Previously Ponded Water Line and Existing Water Line as Mapped on December 4, 2014

(*Notes*: Perimeter of previously ponded waters was defined by the demarcation line of dead vegetation. Locations of the two soil test pits are also noted. Data are superimposed onto an undated aerial photograph.)

### 3.1.3 Mahalang Site MD3

Mahalang Site MD3 is a relatively small oval-shaped depression basin that ponded water during the 2012 and 2013 survey periods; it is surrounded by extensive *Pennisetum* fields DoN (2014). Table 2 shows select physical and ponding characteristics for this depressional site.

This site is different from all other surveyed depression sites, including Bateha, as the site transforms from a dominant growth of a facultative wet wetland grass species during periods of low rainfall to a dominant obligate wetland plant species during periods of high rainfall. As rainfall increases and water starts to pond, *Ipomoea aquatica* gradually becomes the dominant plant species at this site. This obligate wetland plant species (Stemmermann 1981) creates a dense entwining vegetative mat that covers all evidence of ponded water. As rainfall decreases and the wetland starts to dry, *Paspalum conjugatum* increases its dominance. *Paspalum* is a grass that has a high tolerance for saturated soils (Stemmermann 1981) but not standing water. *Ipomoea* survived the 2013 dry season as undergrowth at the base of dominant *Paspalum* grass. However, once water started ponding, *Ipomoea* out-competed the grasses and the cycle was completed.

In the fall of 2012, the water was approximately 4-5 inches (in) (10-12.7 centimeters [cm]) deep. The previously ponded water line was distinct and measured on January 8, 2013, and the area was estimated to be 0.46 ac (0.19 ha) in size. This site was surveyed on December 3, 2014 and found to be flooded with a maximum depth of approximately 4 ft (1.2 m). Lateral expansion of ponded waters was so extensive that the edge was not distinguishable under the thick mat of dead *Pennisetum*. In addition, the previously ponded water line was not visible. While open water was not visually observed at this site in December 2014 due to the dense mats of *Ipomoea*, ponded water was found under the *Ipomoea*. Figure 15 depicts the perimeter of the *Ipomoea* field as of December 3, 2014.

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., this site may be considered an isolated wetland.

### Summary of Site Characteristics for Mahalang Site MD3

(see Appendix B, Field Data Sheets, for details)

### <u>Hydrology</u>

The shallow depressional basin meets the hydrology criteria as contained ponded water.

### Vegetation

*Paspalum conjugatum* (facultative wet) and *Ipomoea aquatic* (obligate) were recorded from this site. *Ipomoea* formed a large dense mat that was mapped and shown in Figure 15. *Paspalum* was present in and along the edges of the *Ipomoea* field.

#### Soils

Soil test pit #1 showed indications of hydric soils while soil test pit #2 did not have hydric soils. Due to the extensive flooding at this site, the second soil test pit was not sited in an appropriate location so it had to be located outside the ponded water.

Connectivity to Waters of the U.S.

No surface drainage features were observed leading into/from this depression basin site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PEM1A (palustrine, emergent, persistent, temporary flooded) (Figure 6) (USFWS 2014).



Figure 15. Mahalang Site MD3 Depicting the Soil Test Pits and Perimeter of the *Ipomoea aquatica* Field Mapped on December 3, 2014

(*Notes*: The area covered by *Ipomoea* was  $5,102 \text{ ft}^2$  (474 m<sup>2</sup>). Data are superimposed onto an undated aerial photograph.)

Final

## 3.1.4 Mahalang Site M07

This site is typical of the other crater sites; a roundish, steeply sloped tree-less conical depression. Table 2 shows select physical and ponding characteristics for this crater site and Figure 16 depicts the perimeters of the previously ponded water line and existing water line as of December 4, 2014. During this field investigation, ponded waters covered an area of 2,056 ft<sup>2</sup> (191 m<sup>2</sup>) and previously ponded waters covered an area of 2,852 ft<sup>2</sup> (265 m<sup>2</sup>). Although the site was dry on December 30-31, 2013, the area of previously ponded waters was 1,367 ft<sup>2</sup> (127 m<sup>2</sup>). The N-S diameter at the crater rim was 107 ft (32.6 m) while the E-W diameter was 99 ft (30.1 m). The vertical depth of this crater was estimated at 18 feet (5.6 m).

Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland. Based on multiple site visits since 2012, there is no reason to suspect that wetland vegetation was growing below the water's surface.

Summary of Site Characteristics for Mahalang Site M07 (see Appendix B, *Field Data Sheets*, for details)

### Hydrology

The typical crater site meets the hydrology criteria as an inverted cone-shaped depression with steep sloping sides containing ponded water.

Vegetation

No obligate or facultative wet wetland plant species were recorded from this site.

Soils

Soil test pit #1 showed indications of hydric soils. Though difficult to determine, the soils in test pit #2 were found not to be hydric. It is believed that if the soil samples were obtained at a lower elevation (when the waters recede) that they would likely be hydric.

Connectivity to waters of the U.S.

One surface drainage feature approximately 86 ft (26.1 m) in length was found along the southwest side of the crater (Figure 16). No other surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type - USFWS NWI

NWI mapped as PEMF (palustrine, emergent, semipermanently flooded) (Figure 6) (USFWS 2014).



Figure 16. Mahalang Site M07 Depicting the Soil Test Pits and Perimeters of the Previously Ponded Water Line and Existing Ponded Water Line as Mapped on December 4, 2014

(*Notes*: Perimeter of previously ponded waters was defined by the demarcation line of dead vegetation. Data are superimposed onto an undated aerial photograph.)

### 3.1.5 Mahalang Site M10

This site is typical of the other crater sites: a roundish, steeply sloped tree-less conical depression. Table 2 shows select physical and ponding characteristics for this crater site and Figure 17 depicts the perimeter of the existing water line as of December 3, 2014. The N-S diameter at the crater rim was 121 ft (37 m) while the E-W diameter was 113 ft (34.4 m). The depth of this crater was estimated to be 18 ft (5.4 m). In December 2013, the estimated area of previously ponded waters was 2,336 ft<sup>2</sup> (217 m<sup>2</sup>), while ponded waters covered 980 ft<sup>2</sup> (91 m<sup>2</sup>) (Table 2).

During this field investigation, water levels were the highest observed and ponded waters covered an area of 6,555 ft<sup>2</sup> ( $609 \text{ m}^2$ ). There was no indication (e.g., dead upland vegetation) that current water levels had receded.

Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland. Based on multiple site visits since 2012, there is no reason to suspect that wetland vegetation was growing below the water's surface.

Summary of Site Characteristics for Mahalang Site M10 (see Appendix B, *Field Data Sheets*, for details)

Hydrology

The typical crater site meets the hydrology criteria as an inverted cone-shaped depression with steep sloping sides with ponded water.

**Vegetation** 

No obligate or facultative wet wetland plant species were recorded from this site.

Soils

Two soil test pits were dug just above the water line (Figure 17). Although the soils at test pit #1 were not hydric, it should be noted that this test pit was sited fairly high on the crater slope due to the high water levels. Soil test pit #2 contained hydric soils.

Connectivity to Waters of the U.S.

One surface drainage feature approximately 20 ft (6.1 m) in length was found along the north side of the crater (Figure 13). No other surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PUSC (palustrine, unconsolidated shore, seasonally flooded (Figure 6) (USFWS 2014).



Figure 17. Mahalang Site M10 Depicting the Soil Test Pits and Perimeter of the Existing Ponded Water Line as Mapped on December 3, 2014.

(Note: Data are superimposed onto an undated aerial photograph.)

### 3.1.6 Mahalang Site M11

Mahalang site M11 is a large roundish open field that has a shallow and flat bottomed basin. Table 2 shows select physical and ponding characteristics for this site and Figure 18 depicts the perimeter of the previously ponded water line as of December 3, 2014. The site is surrounded on the east by secondary forest and on the west by a large *Pennisetum* field. On January 8, 2013, this site was documented with approximately 0.8 ac (0.3 ha) of previously ponded water based on the measurement of dead vegetation (DoN 2014).

At the time of the field investigation, the site was dry with no groundwater or moisture present in the soil test pits. However, there is obvious evidence of earlier flooding by the presence of a dense, homogeneous stand of dead *Mimosa pudica* (facultative upland).

Although the site may meet the hydrology criteria, due to the absence of hydric soils and wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland.

Summary of Site Characteristics for Mahalang Site M11 (see Appendix B, *Field Data Sheets*, for details)

<u>Hydrology</u>

On a landscape scale the area is a very shallow depression but on a smaller scale the site is flat and level. The site may meet the wetland hydrology criteria (water marks, drift deposits, stunted or stressed plants and geomorphic position) but it appears that the flooding is short-term and water percolates relatively quickly.

**Vegetation** 

No obligate or facultative wet wetland plant species were recorded from this site.

<u>Soils</u>

Two soil test pits were dug to a depth of 16 in (41 cm) (Figure 18). The soil profiles did not meet any of the wetland indicator criteria. The soil is well drained and no groundwater was encountered.

Connectivity to Waters of the U.S.

No surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PEM1A (palustrine, emergent, persistent, temporary flooded) (Figure 6) (USFWS 2014).



Figure 18. Mahalang Site M11 Depicting the Soil Test Pits and Perimeter of the Previously Ponded Water Line as Mapped on December 3, 2014

(*Notes*: Perimeter of previously ponded waters was defined by the demarcation line of dead vegetation. Site was completely dry with no ponded waters or wet areas. Data are superimposed onto an undated aerial photograph.)

### **3.2 BATEHA SITES**

The two Bateha wetland sites are shallow depressional areas that are believed to have been modified by anthropogenic activities (DoN 2014). General characteristics of the two Bateha sites are shown in Table 3. Appendix A provides a photograph of each site during the 2014 survey and a representative dry season.

	Length of	Area of Previously Ponded Waters			Area of Existing Ponded Waters			
	Surface Water	7-8 Jan	30-31 Dec	3-4 Dec	7-8 Jan	30-31 Dec	3-4 Dec	
Site	Features	2013	2013	2014	2013	2013	2014	
BD1	None	0.95 ha	Not	0.83 ha	Dry	Dry	0.69 ha	
	None		Not	Not	Not			
BD2	observed	1.10 ha	measurable	measurable	measurable	Dry	0.75 ha	

*Note*: All measurements were made with A Trimble Geoxh and Tornado antenna. Historical comparison data from January and December 2013 are from DoN (2014).

At the time of the December 2014 surveys, both Bateha sites were flooded to a depth of 3-4 ft (1-1.2 m) at some locations. The flooded areas were up to the high water mark at the shoreline indicating that during drier conditions the upland grass *Pennisetum* would become established. There is a seasonal component to the die-off of upland plant species during extended flooded periods, and the extent of the die-off is dependent upon volume and magnitude of rainfall events (DoN 2014). Because of the flooded conditions in December 2014, it was not possible to locate soil test pits in areas where wetland vegetation was always present.

### 3.2.1 Bateha Site BD1

Bateha Site BD1 is the larger of the two Bateha sites. On its south bank, ponded waters abut a steep forested hillside with elevations gradually rising to the east and west. It is dominated by the introduced, sprawling sub-shrub *Mimosa invisa* (facultative upland) during the dry season and also contains small pockets of the introduced shrub *Cassia alata* (facultative upland) along with other weedy species. *Pennisetum polystachion* (facultative upland) and a small area of *Hibiscus tiliaceus* (facultative wet) occur along the perimeter. The only obligate wetland plant species observed at this site is *Ipomoea aquatica*. It comprises a minor component of the wetland plant community and disappears during the dry season. Based on local history, this area was once used as a racetrack.

Table 3 shows select physical and ponding characteristics for this site and Figure 19 depicts the perimeters of the previously ponded water line and existing water line as of December 3, 2014. In January 2013, the estimated area of previously ponded waters was 2.4 ac (0.95 ha), while there were no ponded waters in December 2013 due to dry conditions. Current surveys estimated the area of previously ponded waters in December 2014 to be 2.05 ac (0.83 ha) and existing ponded waters to be 1.71 ac (0.69 ha) (Table 3).

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., this site may be considered an isolated wetland.

## Summary of Site Characteristics for Bateha Site BD1

(see Appendix B, Field Data Sheets, for details)

### <u>Hydrology</u>

A seasonal connection to groundwater resources is possible as a shallow water table was observed in soil test pit # 3. This shallow depression contained ponded water in December 2014.

### Vegetation

Vegetation consisted of flooded upland plant species including *Pennisetim* (facultative upland) and *Cassia alata* (facultative upland). The only obligate wetland plant recorded from this site was *Ipomoea aquatica*. However, it only comprised a very small percentage of the total area of the ponded waters and is thought to disappear when the site becomes dry.

### Soils

Because of the flooded conditions in December 2014, excavating soil test pits was only possible along the shoreline at or near the high water mark. Four soil test pits were established and are depicted on Figure 19. No hydric soils were found in test pits #1, #2, and #3. Only test pit # 4 revealed hydric soils below the thick dark surface. Soils at this test pit were mapped as Unit #43 Saipan clay 0-5% slopes. This soil unit meets the criteria for hydric soils (Natural Resources Conservation Service [NRCS] 1990). It is likely that hydric soils could be found elsewhere toward the center of this Bateha site which was flooded during the time of the site investigation and therefore unreachable.

Connectivity to Waters of the U.S.

No surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PEM1A (palustrine, emergent, persistent, temporary flooded) (Figure 8) (USFWS 2014).



Figure 19. Bateha Site BD1 Depicting the Soil Test Pits and Perimeters of the Previously Ponded Water Line and Existing Ponded Water Line as Mapped on December 2, 2014

(*Notes*: Perimeter of previously ponded waters was defined by the demarcation line of dead vegetation. Data are superimposed onto an undated aerial photograph.)
#### 3.2.2 Bateha Site BD2

Bateha Site BD2 is irregularly shaped and is a relatively deeper depressional basin. There appear to be man-made berms along the south and southeast borders and it has been suggested that this wetland may be an abandoned stock pond (DoN 2014). These berms are dominated by an overstory of the introduced *Acacia confusa* and *P. polystachion. Cassia alata* is dispersed throughout the central portion of the basin as a thick impenetrable thicket (DoN 2014). Although this site does support small areas of *Ipomoea aquatica* (obligate), this species has not dominated the plant community since initial observations started in 2012.

Table 3 shows select physical and ponding characteristics for this site and Figure 20 depicts the perimeter of the existing water line as of December 1, 2014. In January 2013, the estimated area of previously ponded waters was 2.7 ac (1.10 ha), while there were no ponded waters in December 2013 due to dry conditions. Current surveys in December 2014 estimated the area of existing ponded waters to be 1.85 ac (0.75 ha) (Table 3).

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., this site may be considered an isolated wetland.

Summary of Site Characteristics for Bateha Site BD2 (see Appendix B, *Field Data Sheets*, for details)

<u>Hydrology</u>

This shallow depression contained ponded water in December 2014.

**Vegetation** 

Vegetation at the site consisted of a nearly homogeneous stand of *Pennisetum* (facultative upland) with small stands of *Cassia alata* (facultative upland) and small areas of *Ipomoea aquatica* (obligate).

Soils

Soils at this site are mapped as Unit 43 Saipan clay, 0 to 5% slopes. This soil unit is the on list of map units that have small included areas that meet the criteria for hydric soils (NCRS 1990). Hydric soils were found in all five soil test pits.

Connectivity to Waters of the U.S.

No surface drainage features were observed leading into/from this crater site or connecting this site with other surface water bodies.

Wetland Classification Type – USFWS NWI

NWI mapped as PEM1C (*palustrine*, *emergent*, *persistent*, *seasonally flooded*) PEM1A (*palustrine*, *emergent*, *persistent*, *temporary flooded*), and PEM1F (*palustrine*, *emergent*, *persistent*, *semipermanently flooded*) (Figure 9) (USFWS 2014).



Figure 20. Bateha Site BD2 Depicting the Soil Test Pits and Perimeter of the Existing Ponded Water Line as Mapped on December 1, 2014 (*Note*: Data are superimposed onto an undated aerial photograph.)

#### 3.3 HAGOI WETLAND

Soils at all of the test pit locations revealed essentially the same profile and there were no indications of the presence hydric soils. Soils were identified as Unit 10 Chinen clay loam, 0 to 5% slopes, which is not a soil type that meets the criteria for hydric soils (NRCS 1990). Bits of glass, plastic and other man-made material were also found. This evidence supported the assumption that the area had been heavily disturbed, most likely during construction of the North Field airfield by the U.S. military during WWII.

Vegetation is typical of second growth forest dominated by *Melanolepis, Leucaena, Guamia, Ficus*, and *Casuarina* and upland ferns; none of which are obligate or facultative wet species.

The USFWS NWI map (Figure 12) shows the narrow strip of land between Hagoi Road and the wetland as upland. Field verification concluded that there were no indicators of wetland soils, hydrology, or vegetation at any of the six soil test pits along the west side of Hagoi Road.

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### CHAPTER 4 DISCUSSION

Table 4 provides a summary of the findings for the surveys of potential wetland sites at Bateha and Mahalang.

# Table 4. Summary of Survey Findings for Select Potential Wetlands of Bateha and Mahalang, and Adjacent to Hagoi, Tinian (December 1-5, 2014)

		najacent to i				
Site	USFWS NWI*	Presence of Obligate Wetland Vegetation?	Presence of Hydrological Conditions?	Test Pit and Presence of Hydric Soils	Site Connected to Waters of the U.S.?	Potential Wetland?
Mahalang MC1	PUBF	No	Yes: crater; ponded water present.	No. 1 – hydric soils No. 2 – hydric soils	No	No
Mahalang MC2	PEMF	No	Yes: crater; ponded water present.	No. 1 – hydric soils No. 2 – hydric soils	No	No
Mahalang MD3	PEM1A	Yes: Ipomoea aquatica (dominant)	Yes: depressional; ponded water present.	No. 1 – hydric soils No. 2 – no hydric soils	No	Yes – isolated
Mahalang M07	PEMF	No	Yes: crater; ponded water present.	No. 1 – hydric soils No. 2 – no hydric soils	No	No
Mahalang M10	PUSC	No	Yes: crater; ponded water present.	No. 1 – no hydric soils No. 2 – hydric soils	No	No
Mahalang M11	PEM1A	No	Yes: depressional; evidence of previously ponded waters present in the form of dead upland vegetation.	No. 1 – no hydric soils No. 2 – no hydric soils	No	No
Bateha BD1	PEM1A PEM1C PEM1F	Yes: Ipomoea aquatica (minor)	Yes: depressional; ponded water present.	No. 1 – no hydric soils No. 2 – no hydric soils No. 3 – no hydric soils No. 4 - hydric soils	No	Yes – isolated
Bateha BD2	PEM1A	Yes: Ipomoea aquatica (minor)	Yes: depressional; ponded water present.	No. 1 – hydric soils No. 2 – hydric soils No. 3 – hydric soils No. 4 - hydric soils No. 5 - hydric soils	No	Yes – isolated
Area between Hagoi wetland and Hagoi Road	Upland	No	No	No	No	Not Applicable

Legend: \*PEM1A = palustrine, emergent, persistent, temporary flooded; PEM1C = palustrine, emergent, persistent, seasonally flooded; PEM1F = palustrine, emergent, persistent, semipermanently flooded; PEMF = palustrine, emergent, semipermanently flooded; PUBF = palustrine, unconsolidated bottom, semipermanently flooded; PUSC = palustrine, unconsolidated shore, seasonally flooded.

#### 4.1 MAHALANG COMPLEX

#### 4.1.1 Mahalang Site MC1

Site MC1 is an isolated crater within forest, and although hydric soils may exist due to repeated ponding of water, wetland plants have not become established. This isolated crater is not a typical "wetland" area. Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., Site MC1 is not considered a wetland.

Final

#### 4.1.2 Mahalang Site MC2

Site MC2 is an isolated crater within forest and although hydric soils may exist due to repeated ponding of water, wetland plants have not become established. This isolated crater is not a typical "wetland" area. Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., Site MC2 is not considered a wetland.

#### 4.1.3 Mahalang Site MD3

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., depressional Site MD3 may be considered an isolated wetland.

#### 4.1.4 Mahalang Site M07

Site M07 is an isolated crater within forest and although hydric soils may exist due to repeated ponding of water, wetland plants have not become established. This isolated crater is not a typical "wetland" area. Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., Site M07 is not considered a wetland.

#### 4.1.5 Mahalang Site M10

Site M10 is an isolated crater within forest and although hydric soils may exist due to repeated ponding of water, wetland plants have not become established. This isolated crater is not a typical "wetland" area. Although the site exhibited the hydrology and hydric soils criteria, due to the absence of wetland vegetation and lack of connection to surface drainage features or waters of the U.S., Site M10 is not considered a wetland.

#### 4.1.6 Mahalang Site M11

Although Site M11, a depressional basin, exhibited the hydrology criteria, due to the absence of hydric soils and wetland vegetation and lack of connection to surface drainage features or waters of the U.S., this site is not considered a wetland.

#### 4.2 **BATEHA SITES**

#### 4.2.1 Bateha Site BD1

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., Site BD1 may be considered an isolated wetland.

#### 4.2.2 Bateha Site BD2

Due to the presence of suitable hydrology, wetland vegetation, and hydric soils and lack of connection to surface drainage features or waters of the U.S., Site BD2 may be considered an isolated wetland.

#### 4.3 HAGOI WETLAND

Field verification concluded that there were no indicators of wetland soils, hydrology, or vegetation at any of the six soil test pits along the west side of Hagoi Road.

### CHAPTER 5 REFERENCES

- AECOS Inc. and Wil Chee Planning Inc. 2009. Final Guam and Tinian Wetlands Inventory. Honolulu, HI.
- DoN. 2013. Final Wetlands Management Plan for the Mariana Common Moorhen, Tinian Military Lease Area, Commonwealth of the Northern Mariana Islands. Prepared by NAVFAC Pacific, Pearl Harbor, HI. December 20.
- DoN. 2014. Mariana Common Moorhen Surveys of the Bateha and Mahalang Wetlands, MLA, Tinian. Prepared by PCR Environmental, Inc., Barrigada, Guam for NAVFAC Marianas, Guam. June.
- Gingerich, S.B. 2002. Geohydrology and Numerical Simulation of Alternative Pumping Distributions and the Effects of Drought on the Ground-Water Flow System of Tinian, Commonwealth of the Northern Mariana Islands: U.S. Geological Survey Water-Resources Investigations Report 02-4077, 46 pp.

Munsell Color. 2000. Munsell Soil Color Charts. Greg Macbeth Publisher, NY.

- NRCS. 1990. Hydric Soil Map Unit List, Commonwealth of Northern Mariana Islands.
- Raulerson, L. 2006. Checklist of Plants of the Mariana Islands. University of Guam Herbarium Contribution 37:1-69.
- Stemmermann, L. 1981. A Guide to Pacific Wetland Plants. U.S. Army Corps of Engineers, Honolulu District. 118 pp.
- USACE. 1987. Corps of Engineers Delineation Manual. Technical Report Y-87-1. U.S. Army Waterways Experiment Station, Vicksburg, MS.
- USACE. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawai'i and Pacific Islands Region (Version 2.0). ERDC/EL TR-12-5. Wetlands Regulatory Assistance Program, U.S. Army Engineer Research and Development Center, Vicksburg, MS. February.
- USFWS. 1996. Characteristics of Mariana Common Moorhens and Wetland Habitats within the U.S. Department of the Navy's Military Lease Area and Exclusive Military Use Area on the Island of Tinian, Commonwealth of the Northern Mariana Islands, July 1994 August 1995. Prepared by Division of Ecological Services Pacific Islands Ecoregion, Honolulu, HI for Pacific Division, Naval Facilities Engineering Command, Honolulu, HI. February.
- USFWS. 2014. National Wetlands Inventory: Wetlands Mapper Tinian. <u>http://www.fws.gov/wetlands/Data/Mapper.html</u>. Last modified October 6, 2014; accessed January 15, 2015.
- WorldWeatherOnline. 2015. Tinian International Airport (TIQ) Monthly Climate Average, Marpo Heights Hamlet, Northern Mariana Islands. <u>http://www.worldweatheronline.com/v2/weather-averages.aspx?q=TIQ</u>. Accessed March 18.

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# **APPENDIX A:**

# PHOTOGRAPHS OF EACH SITE DURING THE 2014 SURVEY AND A REPRESENTATIVE DRY SEASON

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Final

Figure A-1. Photograph of MC1 site taken on December 4, 2014 showing high ponded water levels during the survey period.



Figure A-2. Photograph of MC1 taken on July 17, 2013 showing dominance of upland field vegetation.



Figure A-3. Photograph of MC2 taken on December 4, 2014 during the survey period.



Figure A-4. Photograph of MC2 taken on July 17, 2013 showing dominance of upland open field vegetation.



Figure A-5. Photograph of MD3 taken on December 3, 2014 showing dominance of *Ipomoea aquatica* mats that overlie ponded waters.



Figure A-6. Photograph of MD3 taken on July 4, 2013 showing a significant decrease in the dominance of *Ipomoea aquatica*.



Figure A-7. Photograph of M07 taken on December 4, 2014 showing the high ponded water levels during the survey period.



Figure A-8. Photograph of M07 taken on July 17, 2013 showing a dominance of upland open field vegetation.



Figure A-9. Photograph of M10 taken on December 4, 2014 during the survey period.



Figure A-10. Photograph of M10 taken on August 18, 2013 showing dominance of upland open field vegetation.



Figure A-11. Photograph of M11 taken on December 3, 2014 showing dead vegetation as a result of previously ponded waters during the survey period.



Figure A-12. Photograph of M11 taken on July 4, 2013 showing site dominated by upland open field vegetation.



Figure A-13. Photograph of BD1 showing level of ponded waters on December 2, 2014. Dead upland vegetation from previously ponded waters is shown in background.



Figure A-14. Photograph of BD1 taken on July 3, 2013 showing open field (upland) vegetation dominating the landscape.



Figure A-15. Photograph of BD2 taken on December 1, 2014 showing level of ponded waters during the survey period.



Figure A-16. Photograph of BD2 on July 16, 2013 showing no ponded waters with the formerly flooded area dominated with open field vegetation.

# APPENDIX A: Field Data Sheets

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WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Project/Site: TINIAN USCTLAND DETE	CILY IN ATION City:	Sampling Date: 12-4	-14 Time: 0830
Applicant/Owner:	State/Terr/Coml	th.: CNWL Island: TINIAN	Sampling Point: $M6 # 1$
Investigator(s): DIAN IDOOSTER		TMK/Parce	al:
Landform (hillslope, coastal plain, etc.):	CRATER SIDRE	Local relief (concave, convex, none):	CONCAUE
Lat: L	ong:	Datum:	Slope (%): 45
Soil Map Unit Name: Davdar Sanpar	velay #23	NWI classification:	PUBP
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes $\underline{X}$ N	lo (If no, explain in Remarks.	1
Are Vegetation, Soil, or Hydrology	significantly disturbed? ເບຍັ A	Are "Normal Circumstances" present?	Yes No _X
Are Vegetation, Soil, or Hydrology	naturally problematic? NO (I	If needed, explain any answers in Rei	marks.) BOMBCRATER
SUMMARY OF FINDINGS - Attach sit	te map showing sampling poir	nt locations, transects, impo	rtant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes _X No Yes _X No	is the Sampled Area within a Wetland?	Yes	No_X
Remarks: These was H ingboology & mee	e wetland veg	jetations puesest-	soils	cleanly Hijknic

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 100400)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Pithecellobium dulce	2	NO	UPL	
3. LeucaeNa	2	No	UPL	Species Across All Strata: (B)
4. 5. Melawolepis	20	yes_	UPE	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		10121 00	vei	Prevalence Index worksheet: 
2. <u>Canica papaya</u> 3	_	_	UPL	OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =
5		_ = Total C	over	FACU species         x 4 =           UPL species         x 5 =
Herb Stratum (Plot size:) 1				Column Totals: (A) (B)
2. <u>Pennoise tura</u> 3 4 5 6 7 8				Hydrophytic Vegetation Indicators:
Woody Vine Stratum (Plot size:)	-	_ = Total Co	over	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
12		_ = Total Co	over	Hydrophytic Vegetation Present? Yes No _X
Remarks: NO OBL OR FACIU at to shoveline - some water shoveline with little vegete	all - Leve	uplan 1 higi	sð for r - to	high writen mark- ming alon

US Army Corps of Engineers

Hawai'i and Pacific Islands Region -Version 2.0

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Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	AS=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Linir	ng, M=Matrix.
lydric Soil 1	ndicators:						Indicators fo	r Problematic	Hydric Soils <sup>3</sup> :
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_ Histic Ep	pipedon (A2)		Dark Surfac	ce (S7)			Sandy M	ucky Mineral (S	51)
Black Hi	stic (A3)		Loamy Gley	yed Matrix (F	-2)		Red Pare	ent Material (F2	1)
_ Hydroge	n Sulfide (A4)		E Depleted M	latrix (F3)			Very Sha	llow Dark Surfa	ace (TF12)
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	ark Surface (A12)	e (A11) *	Depieted D	ark Surrace	((-1)	3India	atore of hudronh	tic versitation a	and wetland budrology
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MC 1

# MC 1 M6 #2

# WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Applicant/Owner:	State/Terr/Comlth.: <u>CNM1</u> Island: <u>TINIAN</u> Sampling Point: <u>M6</u> # TMK/Parcel:
Landform (hillslope, coastal plain, etc.): <u>Bowb</u> CRATERLang:Long:	SHORE Local relief (concave, convex, none): CONCHUE Datum: Slope (%): 45
Soil Map Unit Name:	? Yes X No (If no, explain in Remarks.) isturbed? Are "Normal Circumstances" present? Yes No X
Are Vegetation, Soil, or Hydrology naturally probl SUMMARY OF FINDINGS – Attach site map showing s	Iematic? (If needed, explain any answers in Remarks.) Orec a complement of the sampling point locations, transects, important features, etc.
Are Vegetation, Soil, or Hydrology naturally probl         SUMMARY OF FINDINGS – Attach site map showing s         Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	Itematic?       (If needed, explain any answers in Remarks.)       Over a constant seamond of the seamond o

Tree Stratum (Plot size: <u>M(NG)</u> 10 <sup>1</sup> widgong 1. <u>Leucaena</u> show 2. <u>P:thosellobun</u> 3. 4. <u>Melapolepis</u>	Absolute Dominan <u>% Cover</u> Species <u>N D</u> <u>M D</u>	t Indicator <u>Status</u> UPL UPL	Dominance Test worksho Number of Dominant Spec That Are OBL, FACW, or F Total Number of Dominant Species Across All Strata: Percent of Dominant Spec	les	(A) (B)
5	X_	UPL	That Are OBL, FACW, or I	AC:	(A/B)
Sapling/Shrub Stratum (Plot size:)	= Total C	over	Prevalence Index worksl Total % Cover of:	neet: Multiply by	<u>1</u> .
2. Camica Pavlavia		UPL	OBL species	x1=	
3.			FACW species	x 2 =	
4.			FAC species	x 3 =	
5.			FACU species	x 4 =	
	= Total (	Cover	UPL species	x 5 =	
Herb Stratum (Plot size:)			Column Totals:	(A)	(B)
1	ينسد ستحتب ب	-		202	
2. PENNISETUM	·	FACU	Prevalence Index =	B/A ≈	
3	= Total C	Cover	Hydropnytic Vegetation        1 - Rapid Test for Hydroph        2 - Dominance Test in        3 - Prevalence Index        Problematic Hydroph         Remarks or in the or <sup>1</sup> Indicators of hydric soil a be present, unless disturb	Indicators: Irophytic Vegetatio s >50% is ≤3.0 <sup>1</sup> ytic Vegetation <sup>1</sup> (E Jelineation report) and wetland hydroko bed or problematic.	on xplain in ogy must
1			Hydronhytic		Merry Colored
2	= Total (	Cover	Vegetation Present? Yes	No X	_
Remarks: all plants UPLOL with little vegetation waters abge	FACU - UP	lande (	lovest sunnour along show	ods maten live at	

US Army Corps of Engineers

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Hawai'i and Pacific Islands Region -Version 2.0

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ncnes)			Color (moist)	70	Type	LOC		Remains
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			D vouk		_			
-16	34R/ 3/4	50	14R-14	25			11	N. 1. 1
			144.418	- 25	KM		Clay	labely
ype: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, N	IS=Masked	Sand Gra	ins.		tion: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:					4.4	Indicator	s for Problematic Hydric Soils <sup>3</sup> :
_ Histoso	I (A1)		Sandy Redu	ox (S5)			Strati	ified Layers (A5)
_ Histic E	pipedon (A2)		Dark Surfac	e (S7)	-		Sand	ly Mucky Mineral (S1)
_ Black H	listic (A3)		Loamy Gley	ed Matrix (	F2)		Red	Parent Material (F21)
_ Hydroge Muck P	en Suinde (A4)		Depieted M	Surface (FS)	(6)		Very	r (Evolain in Remarks)
Deplete	d Below Dark Surfa	ce (A11)	Depleted Da	ark Surface	(F7)			(Explain in Normanio)
_ Thick D	ark Surface (A12)		Redox Dep	ressions (F	8)	<sup>3</sup> Indica	ators of hydro	ophytic vegetation and wetland hydrology
_ Sandy	Gleyed Matrix (S4)					mus	st be present	, unless disturbed or problematic.
estrictive	Layer (if observed	):						
							1	
Type:								
Type: Depth (ir temarks:	deep stee : milan to opccistnation	p sided	t aaten #1 depla	floode.	d to Matu	high	Hydric So water th yeil	No Mank - Soils are ow asd red
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US Army Corps of Engineers

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### M07 #1

### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Project/Site: TIN	IAN WETLAND DETER	millation 1	City:	Sampling	Date: 12-4	-14_ Time:	0905
Applicant/Owner:			State/Terr/Co	mith .: CNOWL Island:	TINIAN	Sampling	Point:
Investigator(s):	Jan Wonster				TMK/Parce	el:	
Landform (hillslope,	coastal plain, etc.): _ Bow b	Craten		Local relief (concave, co	nvex, none):	CONCA	UC
Lat:	Long:			Datum:		Slope (%):	15%
Soil Map Unit Name	Davidan Saupan	clay #2	3	NWI cla	assification: _	PEH	F
Are climatic / hydrold	ogic conditions on the site typical fo	or this time of year?	Yes X	No (If no, explain	n in Remarks.	.)	
Are Vegetation	, Soil, or Hydrology		urbed?NO	Are "Normal Circumstan	ces" present?	Yes 🔆	No X
Are Vegetation	, Soil, or Hydrology	naturally problem	matic? NO	(If needed, explain any a	inswers in Re	marks.)	CRATER
SUMMARY OF	FINDINGS - Attach site m	ap showing sa	mpling po	int locations, trans	ects, impo	ortant featu	ires, etc.
1							

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No <u>X</u> Yes No Yes <u>_X</u> No	is the Sampled Area within a Wetland?	Yes	No_X	
Remarks: be getation poud - Dead	Curtenia Not met PENNISETUR IN PE	- upland for = CRATER	nest sunn	ouras Flooded	

#### VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>SOX50</u> ) 1. Melawolepis	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3. Pithe cellobrum dulce	·		UPL	Total Number of Dominant Species Across All Strata: (B)
4. Pandanns fragnans			NI	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum         (Plot size:)           1         2           3         4		= Total Co	/er	Prevalence Index worksheet:
5		= Total Co	wer	UPL species
2. PENDISETUM		·	FACU	Hydrophytic Vegetation Indicators:
4. Laptana cumana			UPI	_X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
6. Ferros (Nephinologis) 7		FAC	FALU	<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain in Remarks or in the delineation report)</li> </ul>
o	-	_ = Total Co	wer	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		= Total Co	wer	Hydrophytic Vegetation Present? Yes No X
Remarks: NO HYDROPHYTIC PLAN PENNESETUM IN PRA	sts - ter	PLOT	ાક ભા	ong should be - dead

ronie Desi	cription: (Describe	to the nep	im needed i	Dedau	Cooking	maicator	or comm	the absence	or mulcators.)
epth inches)	Color (moist)	%	Color (n	noist)	Feature %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0.2	540 3/3	99	ned	loceth	1	6	M	Silty	
<u> </u>				10295 []				clay	
will.	END ull	80	EVO 3	12	1				
110	3412410		57100	12 -	10	2			instar Partones
	·		COTE	911	14	DE			Utility factores
									Vaniga les billip
						-			MATRIX
Type: C=C	Concentration, D=De	pletion, RM	=Reduced N	Matrix, MS=	=Maske	d Sand Gr	ains.	<sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:							Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histoso	I (A1)		San	dy Redox	(S5)			Stratif	ied Layers (A5)
_ Histic E	pipedon (A2)		Dar	k Surface (	(S7)	-		Sandy	Mucky Mineral (S1)
_ Black H	listic (A3)		Loa	my Gleyed	d Matrix	(F2)		Red P	arent Material (F21)
Hydrog	en Sulfide (A4)		Dep	pleted Matr	TIX (F3)	501		Very S	Shallow Dark Sunace (1F12)
MUCK P	resence (A8)	00 (444)	Rec	lox Dark 5	unace (	Fb)		_ Other	(Explain in Remarks)
Thick C	ark Surface (A12)	ce (ATT)	Dep	lov Denres	Seinne /	= (1-7)	3Indies	ators of hydro	nhytic vegetation and wetland hydrolog
Sandy	Gleved Matrix (SA)			ov nehies	5010113 (1	5)	mus	st be present	unless disturbed or problematic.
Candy	l aver (if observed	):					Ind		
Type	Luyer (in obcorred	1•							
Depth (in	nchee):							Hydric Soi	Present? Yes X No
Deput (ii	icites).				_			injuno con	
Remarks:	meets Hyp	PRIC SO	sil cr	renio	<u>ک</u>				
Remarks: YDROLOG Wetland H	Meets Hyp ay ydrology Indicators	LPIC So	observation	s In Rema	rks, if no	eeded.)			
Remarks: YDROLOG Wetland H Primary Ind	Meets Hyp Y ydrology Indicators licators (minimum of	2 PIC 50	observation	s in Remain	rks, if no	eeded.)		Second	lary Indicators (minimum of two require
YDROLOG Wetland H Primary Ind X Surface	Meets Hyp Ay ydrology Indicators licators (minimum of e Water (A1)	2 P.IC 50	observation	In Remain In Remain I that apply Aquatic Far	rks, if no	eeded.) 3)		<u>Second</u>	lary Indicators (minimum of two require rface Soil Cracks (B6)
YDROLOG Wetland H Primary Ind X Surface X High W	Meets Hyp ay ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2)	2 PIC 50	observation	s In Remain that apply Aquatic Far Filapia Nes	rks, if no ) una (B1 sts (B17)	eeded.) 3)		<u>Second</u> Su Sp	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi
YDROLOG Wetland H Primary Ind X Surface X High W Satura	Meets Hyp ay ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3)	2 PIC 50	observation	s In Remain that apply Aquatic Fai Filapia Nes	rks, if no ) una (B1 sts (B17) Sulfide (	eeded.) 3) ) Odor (C1)		<u>Second</u> Su Sp Dra	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10)
YDROLOG Wetland H Primary Ind X Surface X High W Satura X Water	Meets Hyp ay ydrology Indicators licators (minimum of e Water (A1) vater Table (A2) tion (A3) Marks (B1)	2 P21C 50	observation	s In Remain I that apply Aquatic Fair Filapia Nes Hydrogen S Oxidized R	rks, if no ) una (B1 sts (B17 Sulfide ( thizosph	eeded.) 3) ) Odor (C1) eres on Lir	ving Roots	<u>Second</u> Su Sp Dra (C3)Drg	iary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2)
YDROLOG Wetland H Primary Ind X Surface X High W Satura X Water Sedime	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	2 P2 \C 5	observation	s In Remain I that apply Aquatic Far Filapia Nes Hydrogen S Oxidized R Presence o	rks, if no ) una (B1 sts (B17) Sulfide ( hizosph of Reduc	eeded.) 3) ) Odor (C1) ieres on Lir ced Iron (C	ving Roots	<u>Second</u> Su Sp Dra (C3)Dra	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5)
Primarks: YDROLOG Wetland H Primary Ind X Surface X High W Satura X Water Sedime Drift D	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	2 P.IC 5	observation ad: check all 	s In Remain I that apply Aquatic Far Filapia Ness Hydrogen S Oxidized R Presence of Recent Iror	rks, if no ) una (B1 sts (B17 Sulfide ( hizosphof Reduce n Reduce	eeded.) 3) ) Odor (C1) ieres on Lir ced Iron (C stion in Tille	ving Roots 4) ed Soils (Cé	<u>Second</u> Su Dra (C3)Dra (C3)Sa 3)XStr	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1)
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Primarv Ind YDROLOG Wetland Hy Primarv Ind X Surface X High V Satura Satura Satura Drift D Algal M Iron Do	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)	2 P21C 50	observation	s In Remain that apply Aquatic Fair Filapia Ness Hydrogen S Dxidized R Presence of Recent Iron Thin Muck Fiddler Cra	rks, if no ) una (B1 sts (B17, Sulfide ( hizosph of Reduc n Reduc Surface ab Burro	eeded.) 3) ) Odor (C1) ieres on Lir ced Iron (C ction in Tille e (C7) wws (C10) (	ving Roots (4) ed Soils (Ce Guam, CN	<u>Second</u> Su Sp Dra (C3)Dra (C3)Sa 3)XSta X Ge Mi,Sh	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Ba ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) ecomorphic Position (D2) rallow Aquitard (D3)
YDROLOG Wetland Hy Primary Ind X Surface X High V Satura Satura Satura Drift D Algal M Iron De Inunda	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aeria	2 P21C 50	observation <u>ad; check all</u> <u></u>	In Remain In Remain In Remain In Remain In Remain Aquatic Far Flapia Nes Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Fiddler Cra and Ame	rks, if no ) una (B1 sts (B17 Sulfide ( thizosph of Reduc n Reduc Surface ab Burro erican S	eeded.) 3) Ddor (C1) eres on Lir ced Iron (C stion in Tille c (C7) wws (C10) ( samoa)	ving Roots (4) ed Soils (Cf Guam, CNI	<u>Second</u> Su Sp Dra (C3)Dra (C3)SA (C3)SA (C3	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (B4 ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) ecomorphic Position (D2) nallow Aquitard (D3) (C-Neutral Test (D5)
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Primary Ind YDROLOG Wetland Hy Primary Ind Y Surface Y High W Satura Sedime Drift De Algal M Iron De Inunda Water- Field Obse	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations:	2 P21C 5( s: (Explain one require I Imagery ()	observation ad: check all 	s In Remain that apply Aquatic Far Filapia Nes Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Fiddler Cra and Ame Other (Exp	rks, if no ) una (B1 sts (B17) Sulfide ( hizosph of Reduc n Reduc Surface ab Burro erican S plain in F	eeded.) 3) ) Odor (C1) eres on Lir ced Iron (C tion in Tille e (C7) wws (C10) ( amoa) Remarks)	ving Roots 4) ed Soils (C6 Guam, CN	Second Su Sp Dra (C3)Dra (C3)Sa (C3)Sa Sa (C3)Sa Sa MI,Sh FA	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5)
Primarv Ind YDROLOG Wetland Hy Primarv Ind X High W Surface X High W Satura Sedime Drift De Algal M Iron De Inunda Water- Field Obse Surface Water-	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aeria Stained Leaves (B9) ervations: ater Present?	2 P21C 50	observation ad: check all     B7)	s In Remain that apply Aquatic Far Tilapia Nes Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduc n Reduc Surface ab Burro erican S olain in F ches):	eeded.) 3) ) Odor (C1) eres on Lin ced Iron (C tion in Tille e (C7) wws (C10) ( aamoa) Remarks)	ving Roots 4) ed Soils (C6 (Guam, CNI	Second Su Sp Dra (C3)Dra (C3)Sa Sa Sa Sa Sa Sh FA	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5)
Primarv Ind Vetland Hy Primarv Ind Vetland Hy Primarv Ind Vetland Hy Primarv Ind Vetland Hy Surface Vetland Hy Surface Vetland Surface	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) attor Visible on Aeria Stained Leaves (B9) ervations: ater Present? le Present?	2 P1C 50	observation ad: check all 	s In Remain that apply Aquatic Far filapia Ness Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc Depth (inc	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduc n Reduc Surface ab Burro erican S olain in F ches): ches):	eeded.) 3) ) Odor (C1) eres on Lir ced Iron (C ction in Tille e (C7) wws (C10) ( aamoa) Remarks)	ving Roots (4) ed Soils (C6 Guarn, CN	Second Su Sp Dra (C3)Dra (C3)Sa (C3)Sa Sa	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) comorphic Position (D2) nallow Aquitard (D3) (C-Neutral Test (D5)
Comparison Compar	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations: ater Present? le Present? Present? apillary fringe)	2 P21C 50	observation ad: check all 	s In Remain that apply Aquatic Far Tilapia Nes Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc Depth (inc	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduc n Reduc Surface ab Burro erican S olain in F ches): ches): ches):	eeded.) 3) ) Odor (C1) eres on Linced Iron (C tion in Tille e (C7) wws (C10) ( amoa) Remarks)	ving Roots 4) ed Soils (C6 (Guam, CNI	Second Su Sp Dra (C3)Dra (C3)Sa Sa Sa Sa MI,Sh FA	Iary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) gy Present? Yes X No
Primarv Ind Primarv Ind Primarv Ind Primarv Ind Primarv Ind Surface Water Sedimu Algal M Iron Do Inunda Water- Tield Obse Surface Wa Vater Tabl Saturation Includes c Describe R	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations: ater Present? Present? apillary fringe) tecorded Data (streaged)	2 P21C 50	observation           od; check all	In Remain that apply Aquatic Fair Filapia Ness- Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc Depth (inc Depth (inc ell, aerial p	rks, if no ) una (B1 sts (B17) Sulfide ( hizosph of Reduc n Reduc Surface ab Burro erican S olain in F ches): ches): ches):	eeded.) 3) ) Ddor (C1) meres on Lin ced Iron (C tion in Tille a (C7) wws (C10) ( amoa) Remarks) previous in	ving Roots 4) ed Soils (Cf Guam, CN Guam, CN Wet		Iary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) somorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) gy Present? Yes X No
Primarks: YDROLOG Wetland Hy Primary Ind X Surface X High Vi Satura Satura Control Algal N Iron De Inunda Water Field Obse Surface Wa Water Tabl Saturation (Includes c Describe R Remarks:	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aeria Stained Leaves (B9) ervations: ater Present? Present? Present? apillary fringe) tecorded Data (streaged)	2 P.IC 50	observation ad; check all 	In Remain that apply Aquatic Fair Filapia Ness Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Fiddler Cra and Ame Other (Exp Depth (ind Depth (ind Depth (ind Depth (ind Depth (ind Depth (ind	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduce ab Burro erican S blain in F ches): ches): ches): ches):	eeded.) 3) ) Ddor (C1) eres on Lir ced Iron (C stion in Tille c (C7) wws (C10) ( amoa) Remarks) previous in	ving Roots (4) ed Soils (Cf Guam, CNI (Guam, CNI (Wet) (Wet) (Spections),	<u>Second</u> Su Sp Dra (C3) Dra Sa 	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (B4 ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) ecomorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) gy Present? Yes X No
Remarks: YDROLOG Wetland Hy Primary Ind X Surface X High V Satura Satura Control Algal N Iron De Inunda Water- Field Obse Surface Wa Water Tabl Saturation (Includes c Describe R Remarks:	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations: ater Present? Present? apillary fringe) Recorded Data (streaged)	2 P.IC 50	observation ad; check all 	In Remain that apply Aquatic Fai Filapia Ness Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Fiddler Cra and Ame Other (Exp Depth (ind Depth (ind Depth (ind Depth (ind Depth (ind	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduc n Reduc Surface ab Burro erican S olain in F ches): ches): ches): ches):	eeded.) 3) Ddor (C1) eres on Lir ced Iron (C stion in Tille (C7) ws (C10) ( amoa) Remarks) previous in	ving Roots 4) ed Soils (Cf Guam, CNI Weti spections),	Second Su Sp Sp Sn Sa 	Iany Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) eomorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) gy Present? Yes X No X
Remarks: YDROLOG Wetland Hy Primary Ind X Surface X High V Satura Satura Water Drift Di Algal N Iron Do Inunda Water- Field Obse Surface Wa Water Tabl Saturation (includes c Describe R Remarks:	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations: ater Present? Present? apillary fringe) tecorded Data (streaged) in act 5	2 P.IC 50	observation ad; check all 	In Remain that apply Aquatic Fair Filapia Ness- Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc Depth (inc Depth (inc ell, aerial p	rks, if no ) una (B1 sts (B17) Sulfide ( thizospho of Reduce ab Burro erican S olain in F ches): ches): ches): ches):	eeded.) 3) Ddor (C1) meres on Lir ced Iron (C tion in Tille a (C7) ws (C10) ( amoa) Remarks) previous in	ving Roots 4) ed Soils (Cf Guam, CNI (Guam, CNI (Wet) spections),	Second Su Sp Sp Sn Ss SS 	Iary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) somorphic Position (D2) allow Aquitard (D3) (C-Neutral Test (D5) gy Present? Yes X No X
Remarks: YDROLOG Wetland Hy Primary Ind X Surface X High V Satura Sedimu Satura Sedimu Drift Du Algal N Iron Do Inunda Water Field Obse Surface Wa Water Tabl Saturation (includes c Describe R Remarks:	Meets Hyp ydrology Indicators licators (minimum of e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ation Visible on Aeria Stained Leaves (B9) ervations: ater Present? Present? apillary fringe) tecorded Data (streaged) ym cets	2 PIC 50	observation ad; check all 	In Remain that apply Aquatic Fair Filapia Nes- Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Fiddler Cra and Ame Other (Exp Depth (inc Depth (inc Depth (inc ell, aerial p	rks, if no ) una (B1 sts (B17) Sulfide ( hizospho of Reduce n Reduce Sulfide Sulfide ( hizospho of Reduce n Reduce Sulfide Sulfide ( hizospho freeduce n Reduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce n Reduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce sulfide ( hizospho freeduce frees): ches): ches): ches): ches):	eeded.) 3) Ddor (C1) eres on Lir ced Iron (C tion in Tille (C7) ws (C10) ( amoa) Remarks) previous in	ving Roots 4) ed Soils (Cf Guam, CNI (Guam, CNI (Spections),	Second Su Sp Sp Sp Sa Sa Sa Sa Sa MI,Sh FA MI,Sh FA	lary Indicators (minimum of two require rface Soil Cracks (B6) arsely Vegetated Concave Surface (Bi ainage Patterns (B10) y-Season Water Table (C2) It Deposits (C5) unted or Stressed Plants (D1) somorphic Position (D2) allow Aquitard (D3) AC-Neutral Test (D5) gy Present? Yes X No X

-	-	
_	<b>a</b> 3	
_	-	_

OIL									S	ampling Point:
Profile Desci	ription: (Describe to	the depth ne	eded to do	cume	ent the in	dicator	or confirm	n the absen	ce of indi	cators.)
Depth	Matrix		R	edox	Features					
(inches)	Color (moist)	%	olor (moist)		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
07	54R-3/41 9	19 5	1R416	ież	sthall	<u> </u>	M	FINE SI	ty	
								cian		
1-16	ENO 3/11	95 0	vo ulh		1	C				
110		-1/>	110-110					•		
			Yello	ų <u>,</u>				<u></u>		
				_			_			
Type: C=Co	oncentration, D=Deplet	tion, RM=Red	luced Matrix	x, MS	=Masked	Sand Gr	ains.	Loc Indicate	ation: PL	=Pore Lining, M=Matrix.
Tyuric Soli I	(A4)		Sandy E	odov	(95)			Str	tified I av	ors (A5)
Histosol	(A1) ninedon (A2)		Dark Su	face	(57)			Sar	dv Mucky	Mineral (S1)
Biack Hi	istic (A3)		Loamy (	Sleve	d Matrix (	F2)		Rec	Parent N	Aaterial (F21)
Hydrone	en Sulfide (A4)	1	Depleter	d Mat	rix (F3)			Ver	y Shallow	Dark Surface (TF12)
Muck Pr	resence (A8)		Redox D	Dark S	urface (F	6)		Oth	er (Explai	in in Remarks)
Depleted	d Below Dark Surface	(A11)	Depieter	d Darl	« Surface	(F7)				
Thick Da	ark Surface (A12)		_ Redox D	Depres	ssions (Fi	B)	<sup>3</sup> India	cators of hyd	rophytic v	regetation and wetland hydrology
Sandy G	Gleyed Matrix (S4)			_			m	ust be prese	nt, unless	disturbed or problematic.
Restrictive	Layer (if observed):							-		
Type:		Sec. 2	-					1.1.1.2		
Depth (in	ches):		2.					Hydric S	Soil Prese	ent? Yes No X
Remarks: \F IS	NOT HYRI SOIL 19 + LOWER TH	rested hat h	FFICU FUR YOR	LT TH = = =	TO I ER :	DETE	BE	NE - IT PE WI LOCAT	t is ten t ed	UKIN THAT WATER EVCI
YDROLOG	Y.	•								
Wetland Hy	drology Indicators:	(Explain obse	ervations in	Rema	arks, if ne	eded.)				
Primary Indi	icators (minimum of on	e required; c	neck all that	t apply	(V)			Sec	ondary Inc	dicators (minimum of two required
K Surface	Water (A1)		Aqua	tic Fa	una (B13	5)		-	Surface S	ioil Cracks (B6)
Y High W	ater Table (A2)	-	Tilap	ia Ne	sts (B17)				Sparsely	Vegetated Concave Surface (B8)
Saturat	ion (A3)		Hydr	ogen	Sulfide O	dor (C1)			Drainage	Patterns (B10)
Water M	Marks (B1)		Oxid	ized F	Rhizosphe	eres on L	iving Root	ts (C3)	Dry-Seas	on Water Table (C2)
Sedime	ent Deposits (B2)		Pres	ence	of Reduce	ed Iron (0	C4)		Salt Depo	osits (C5)
Drift De	eposits (B3)		Rece	ent Iro	n Reduct	ion in Till	ed Soils (0	C6) <u>K</u>	Stunted o	or Stressed Plants (D1)
Alwal M					12 1 2 h 1 h 1	CONTRACTOR OF A		127	and the second second	
Algal W	lat or Crust (B4)		Thin	Muck	Surface	(C7)		X	Geomorp	hic Position (D2)
Iron De	lat or Crust (B4) eposits (B5)		Thin Fidd	Muck ler Cra	ab Burrov	(C7) vs (C10)	(Guam, C	NMI,	Geomorp Shallow /	hic Position (D2) Aquitard (D3)

Water-Stained Leaves (B9) Field Observations:

Surface Water Present? Water Table Present?

 
 Yes \_\_\_\_\_ No \_\_\_\_ Depth (inches):

 Yes \_\_\_\_\_ No \_\_\_\_ Depth (inches):
 Saturation Present? (includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Yes \_\_\_\_\_ No \_\_\_\_ Depth (inches):

Other (Explain in Remarks)

Remarks:

MEETS HYDROLOGY CRITERIA

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Wetland Hydrology Present? Yes X No

### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

			TMK/Parcel:
vestigator(s): Var WODS w		DATER Land	Indiat (concerve convex none): CONVEX
indform (hillslope, coastal plain, etc.): <u>51012 2962</u>	. 04 .	IZHICK LUCA	Deturn
t: Long:			
il Map Unit Name: Dandan Sol pers C	lay		
e climatic / hydrologic conditions on the site typical for this	time of year	? Yes No	(If no, explain in Remarks.)
e Vegetation, Soil, or Hydrology si	gnificantly di	isturbed? 00 Are "I	Normal Circumstances" present? Yes X No
e Vegetation, Soil, or Hydrology na	aturally prob	lematic? N (If ner	eded, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site map s	showing	sampling point lo	ocations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	X	Is the Sampled	Area
Hydric Soil Present? Yes No	X	within a Wetlan	d? Yes No X
Netland Hydrology Present? Yes X No	o		
EGETATION – Use scientific names of plan	ts.		
	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2		1.0	Total Number of Dominant
3. Melanoleps	*****	<u>bic</u>	Species Across All Strata: (b)
. Det and burne dulce		OFC	Percent of Dominant Species
- FILLECELLE STOP		= Total Cover	
Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			
3			FAC species X 2 =
4		·	FACI species X4 =
5		- Total Cover	IIPI species x5 =
Herb Stratum (Plot size:)			Column Totals: (A) (B)
1			
2. PENNISEtum		FACU	Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators:
4. Lantana			A 1 - Rapid Test for Hydrophytic Vegetation
5	•		2 - Dominance results > 50%
6	·	·	Problematic Hydrophytic Veretation <sup>1</sup> (Evplain in
7		·	Remarks or in the delineation report)
8		- Total Cautar	
Woody Vine Stratum (Plot size:)		-= TOLAI COVEF	'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1			
			Hydrophytic Vegetation
2.	1.1	= Total Cover	Present? Yes No K
2			

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Hawai'i and Pacific Islands Region -Version 2.0

#### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

City: Sampling Date: 12-4-14 Time: 10 15
_ State/Terr/Comlth.: CNH Island: TINIAN Sampling Point: M28
TMK/Parcel:
Local relief (concave, convex, none):
Datum: Slope (%): 5
2.3 NWI classification: PENF
r? Yes X No (If no, explain in Remarks.) listurbed? いの Are "Normal Circumstances" present? Yes No X blematic? NO (If needed, explain any answers in Remarks.) BOM CRATE!
sampling point locations, transects, important features, etc.
Is the Sampled Area within a Wetland? Yes No

emarks:	ERID SIde	ed bomb	crater,	Pautially	Plooded -	doed upland	
veseta	TION ON	edge n	ud lass (	b'odes side -	hydric	Soils	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: edge af poing) 15"	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)	
2. Mclanolepis 3.	5		upl	Total Number of Dominant Species Across All Strata:(B)	)
4 5		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/	/B)
Sapling/Shrub Stratum (Plot size:) 1		- 10101 00		Prevalence Index worksheet: Total % Cover of:Multiply by:	
2. Canica Danaila			UPL	OBL species x 1 =	
3 Leuce and	2		DPL	FACW species x 2 =	
4 (2) 2(2) 20 1 (2)	2		1182	FAC species x 3 =	
5	12 2		-Crimer	FACU species x 4 =	
		= Total Co	wer	UPL species x 5 =	
Herb Stratum (Plot size:)				Column Totals: (A) (h)	B)
2. dead pennisetion	TS/2			Prevalence Index = B/A =	
3 4 5 6 7				Hydrophytic Vegetation Indicators:         _X 1 - Rapid Test for Hydrophytic Vegetation         _ 2 - Dominance Test is >50%         _ 3 - Prevalence Index is ≤3.01         _ Problematic Hydrophytic Vegetation1 (Explain in	n
8	50	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.	it
2	36	 _ = Total Co	wer	Hydrophytic Vegetation Present? Yes No X	
Remarks: vyland forest to V at less flooded area - because af wrend	no ref	cw e	edge sbl sp	-dead personsation "P -"PIOT" is difficult to	

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mc2

M29#1

								Sampling Point: M28 #
rofile Descr	iption: (Describe	to the dep	th needed to docum	ent the in	dicator o	or confirm	the absence o	of Indicators.)
epth	Matrix		Redox	Features				
nches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
5-5"	54R3/3	99	54R46	21%	C	M	blocky.	
							timesit	no distinct
		<u></u>						howzow
5-15+	54R 3/3							bot a charge
	7.5YR	99	54124/6 0	- 10-1º/	D	M		3
	7/6							See photo 4015
ype: C=Co	ncentration, D=De	pletion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Locatio	n: PL≂Pore Lining, M=Matrix.
ydric Soil I	ndicators:						Indicators	for Problematic Hydric Soils <sup>3</sup> :
_ Histosol	(A1)		Sandy Redox	(S5)			Stratifie	ed Layers (A5)
_ Histic Ep	ipedon (A2)		Dark Surface	(S/) od Matrix (F	(2)		Sandy I Red Pa	mucky mineral (51) arent Material (F21)
Hydroge	n Sulfide (A4)		A Depleted Mat	trix (F3)	-/		Very SI	hallow Dark Surface (TF12)
Muck Pre	esence (A8)		Redox Dark S	Surface (F6	5)		Other (	Explain in Remarks)
X Depleted	Below Dark Surfa	ce (A11)	Depleted Dar	rk Surface (	(F7)	3 India	ators of hydron	bytic venetation and wetland bydro
_ THICK Da	loved Matrix (SA)		Nedox Depre	5510115 (1-0	/	mu	ist be present, u	inless disturbed or problematic.
Sandy G	ICYCU WOULA IOTI							and the second
Sandy G Restrictive L	ayer (if observed	):	10					
Sandy G testrictive L Type:	ayer (if observed	):						~
Sandy G Restrictive L Type: Depth (inc Remarks:	steep sid fucur s bes):	hove -	very likely souls will	that before	ala alau - Ga	ong checto diffic	Hydric Soll thy show in 15 duy colt call	Present? Yes X No welline 2.5 feet y theat - Wad photos
Sandy G Restrictive L Type: Depth (inc Remarks:	steep sid fnour s beny h	): hed cu houe_ ny n > d	verten hole very (ikely soits will	dua that befou	ala alau - Ga	ong checto diffic	Hydric Soll by show in 15 dw. colt call	Present? Yes X No welling 2.5 feet y theat - Wad photos
Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOG) Wetland Hyd	steep sid from s bes): Steep sid from s Deny b drology Indicators	houe_ houe_ houe_ houe_	berry (ike), Soils will	that the four	elis elanu - Gai	ong checto diffic	Hydric Soll shy show in 15 dwg colt call	Present? Yes X No white 2.5 feet y that - Wad photos
Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOG) Wetland Hyo Primary Indic	Aver (if observed ches): Steep 3(d fnoun 5 Ucny b drology Indicators cators (minimum of	): hove_ wy w > d s: (Explain one require	observations in Rema	that that be fou arks, if nee	eli ubay uba) - ded.)	ong c crata diffia	Hydric Soll by show in 15 dwy colt call	Present? Yes X No welling 2.5 feet y thet - Used photos any Indicators (minimum of two requ
Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOG) Wetland Hyd Primary India X Surface	shes): Steep 3(2 fuour 5 Deny b drology Indicators cators (minimum of Water (A1)	): hove ny vr > d :: (Explain one require	observations in Rema - check all that appl - Aquatic Fe	e dog that befou arks, if nee W auna (B13)	eli uhay - Gay ded.)	ong checto diffic	Hydric Soll bry show in 15 dw colt call	Present? Yes X No welling 2.5 feet y theet - Wad photos any Indicators (minimum of two required face Soil Cracks (B6)
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Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOGN Wetland Hyo Primary India X Surface X High Wa Saturatio X Surface Saturatio Setimen Sedimen Drift Dep	Aver (if observed ches): Steep sid from s Ueny b drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	): hove ny vr > d :: (Explain one require	observations in Rema - very (, ke), Soils will observations in Rema ed: check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized Fa Presence Recent Inc	arks, if nee be fou arks, if nee by auna (B13) auna (B13) auna (B17) Sulfide Od Rhizospher of Reduce on Reducetio	ی ایم مرابع ded.) ded.) ded.) d Iron (C1) res on Lin d Iron (C on in Tille	ving Roots	Hydric Soll hy show in 1s dwy colt call <u>Seconda</u> <u>Seconda</u> <u>Sanda</u> (C3) Dry- <u>Sanda</u> (C3) State (C3) State	Present? Yes X No which we 2.5 feet y thet - Wad photos any Indicators (minimum of two reau face Soil Cracks (B6) rsely Vegetated Concave Surface inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) inted or Stressed Plants (D1)
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Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOGN Wetland Hyo Primary India X Surface X High Wa Saturatio X Surface Saturatio Sedimen Drift Dep X Algal Ma Inon Dep Inondatio	An end of the second state ( $34$ ) ayer (if observed) steep s(d) f construction ( $34$ ) f construction ( $34$ ) f construction ( $34$ ) ater Table (A2) on (A3) ater Table (A2) on (A3) ater Table (A2) on (A3) ater Table (A2) ater T	): hove ny v > d :: (Explain one require	observations in Rema ed: check all that appl 	arks, if nee be fou arks, if nee by auna (B13) auna (B13) auna (B13) auna (B13) sulfide Od Rhizospher of Reduce on Reduce to Reduce to Reduce to Reduce to Reduce to R	ر الماني ded.) ded.) ded.) d Iron (C on in Tille C7) s (C10) ( marke)	ving Roots ed Soils (C (Guam, CN	Hydric Soll Hydric Soll hy 5 hoh in 15 d wi colt call Seconda Suri X Spa Drai (C3) Dry- Salt 6) X Stua X Geo IMI, Sha FAC	Present? Yes X No which we 2.5 feet y thet - Wad photos any indicators (minimum of two reau face Soil Cracks (B6) rsely Vegetated Concave Surface inage Patterns (B10) -Season Water Table (C2) to Deposits (C5) inted or Stressed Plants (D1) pomorphic Position (D2) tillow Aquitard (D3) 2-Neutral Test (D5)
Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOG) Wetland Hype Primary India X Surface Ydraw India X Surface Saturation Satura	Area in a trick (04) ayer (if observed Steep 3(d fuous 5 Ucny 1 drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria Stained Leaves (B9) vations:	): howe_ hy w > d : (Explain one require one require	observations in Rema ad: check all that appl Aquatic Fa Aquatic Fa 	auna (B13) auna (B13) auna (B13) austs (B17) Sulfide Od Rhizospher of Reduction k Surface ( rab Burrowa herican Sar splain in Re	ر الم الم الم الم الم الم الم الم الم الم	ving Roots (Guam, CN	Hydric Soll Hydric Soll Ary 5 how in 15 d with colt call Seconda Surf Surf Salt 	Present? Yes X No which we 2.5 feet y thet - Wad photos any indicators (minimum of two required face Soil Cracks (B6) risely Vegetated Concave Surface inage Patterns (B10) -Season Water Table (C2) to Deposits (C5) inted or Stressed Plants (D1) pomorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
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Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOGY Wetland Hyd Primary India X Surface X High Wat Saturatio X Surface X High Water M Sedimen Drift Dep X Algal Mater Inundatio Water-S Field Obser Surface Water Surface Water Surfac	ches): steep 3(d) steep 3(d) fuous 5(d) fuous 5(d) fuous 5(d) fuous 5(d) fuous 5(d) fuous 5(d) fuous 5(d) fuous 6(d) fuous 6(d)	): Led CM howe ny w > d :: (Explain one require il imagery ( ) Yes Yes	observations in Rema ed: check all that appl Aquatic Fa Tilapia Ne Aquatic Fa Tilapia Ne Aquatic Fa Aquatic Fa 	arks, if nee be fou arks, if nee by auna (B13) auna (B13) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce on Reduction k Surface (( rab Burrowa nerican Sar rplain in Re aches): aches):	ر المرابي ded.) ded.) ded.) d Iron (C on in Tille C7) s (C10) ( marks)	ving Roots ed Soils (C Guam, CN	Hydric Soll hy show in 15 dwi colt call <u>Seconda</u> <u>Seconda</u> <u>Salt</u> (C3) Dry <u>Salt</u> (C3) Stat (C3) St	Present? Yes X No which we 2.5 feet y thet - Wad photos any Indicators (minimum of two reau- face Soil Cracks (B6) resely Vegetated Concave Surface inage Patterns (B10) -Season Water Table (C2) a Deposits (C5) Inted or Stressed Plants (D1) perophic Position (D2) tillow Aquitard (D3) C-Neutral Test (D5)
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Sandy G Restrictive L Type: Depth (inc Remarks: YDROLOGY Wetland Hyd Primary India X Surface High Wa Saturatia Saturatia Yater M Sedimen Drift Dep X Algal Ma Iron Dep Inundati Water-S Field Obser Surface Water Surface Water Surface Water Saturation P Includes ca Describe Re Remarks:	And the second s	): A e d C u houe houe is: (Explain one require is: (Explain one require yes Yes Yes Yes	observations in Rema ed: check all that appl 	auna (B13) bets (B17) Sulfide Od Rhizospher of Reduce on Reduction k Surface (( rab Burrowan erican Sar plain in Re nches): nches): photos, pro	ر المالي المحالي ded.) ded.) ded.) d Iron (C on in Tille C7) s (C10) ( noa) marks) evious In	ving Roots d: ffiz d:	Hydric Soll Ary 5 how In 15 d with Lot Call Seconda Suff Spa Salt (C3) Dry Salt (C3) Dry Salt (C3) Star A Geo IMI, Sha FAC Hand Hydrolog	Present? Yes X No which we 2.5 feet y thet - Wad photos any indicators (minimum of two required face Soil Cracks (B6) risely Vegetated Concave Surface inage Patterns (B10) -Season Water Table (C2) to Deposits (C5) Inted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) My Present? Yes X No

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#### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

	outer out contraction terrary terrary
Investigator(s): Day WOOSTER	TMK/Parcel:
Landform (hillslope, coastal plain, etc.): _Born b Cr	Local relief (concave, convex, none): <u>CONCADE</u>
Lat: Long:	Datum: Slope (%):
Soil Map Unit Name: Davdav Saupar	o clay #23 NWI classification: PEMF
Are climatic / hydrologic conditions on the site typical for t Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology	this time of year? Yes <u>X</u> No <u>(If no, explain in Remarks.)</u> _significantly disturbed? いの Are "Normal Circumstances" present? Yes <u>No X</u> _ naturally problematic? NO (If needed, explain any answers in Remarks.) Co れん Cont

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: edge of poop 2 1 (5 m) de	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	_ (A)
2. 3. Malano Capis	S	Yes	opi	Total Number of Dominant Species Across All Strata:	(B)
4	·			Percent of Dominant Species That Are OBL, FACW, or FAC:	_ (A/B)
Sapling/Shrub Stratum (Plot size:)		= Total Co	ver	Prevalence Index worksheet: Total % Cover of: Multiply by:	
2 0120.41.10	5		UPI	OBL species x1 =	_
3 Cumon	1		VPL	FACW species x 2 =	
A Monuba atun		1	UPL	FAC species x 3 =	
5				FACU species x 4 =	
		= Total C	over	UPL species x 5 =	
Herb Stratum (Plot size:) 1) 1	56		FACU	Column Totals: (A)	(B)
3. <u>Melanolepis endtugtandosa</u> 4 5 6 7 8				Hydrophytic Vegetation Indicators:	olain in
Woody Vine Stratum (Plot size:)		_ = Total Co	over	<sup>1</sup> Indicators of hydric soil and wetland hydrolog be present, unless disturbed or problematic.	ly must
2. Mikania	5	-	FACU	Hydrophytic Vegetation	
		= Total C	over	Present? Yes No X	-

US Army Corps of Engineers

Hawai'i and Pacific Islands Region -Version 2.0

MC2 M28#2

11				Sampling Point: M 2	8 #2
mile Description: (Describe to the dent	h needed to document the indic	ator or confirm f	he absence o	f indicators.)	
onth Matrix	Redox Features		10 44 5 100 B -	a service a	
nches) Color (moist) %	Color (moist) % Ty	pe <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
			blacky		
-> spiscoste -100.			Ripert		
······································					
-14 754R VR 90	SYR4/6 10 \$	) <u>M</u>		yellow douletion	)
7)(	- ,			ie lous	
				and the state	
· · · · · · · · · · · · · · · · · · ·					
ype: C=Concentration, D=Depletion, RM=	Reduced Matrix, MS=Masked Sal	nd Grains.	<sup>2</sup> Locatio	n: PL=Pore Lining, M=Matri	X.
ydric Soil Indicators:			Indicators	for Problematic Hydric Soi	IS':
_ Histosol (A1)	Sandy Redox (S5)		Stratifie	ed Layers (A5)	
_ Histic Epipedon (A2)	Dark Surface (S7)		Sandy	Mucky Mineral (S1)	
_ Black Histic (A3)	Loamy Gleyed Matrix (F2)		Red Pa	rent Material (F21)	
_ Hydrogen Sulfide (A4)	Depleted Matrix (F3)		Very Si	Evoloin in Demarke)	
_ Muck Presence (A8)	Redox Dark Surface (FO)	7)	_ oner (	Explain in recinance/	
Thick Dark Surface (A12)	Redox Depressions (F8)	<sup>3</sup> Indicat	tors of hydrop	hytic vegetation and wetland	hydrology
THICK DAIN OUTDOG (ATZ)	- I togett population ()			inless disturbed or problema	atic.
Sandy Gleved Matrix (S4)		mus	t be present, t	and a state of the	
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed):		mus	t be present, t		
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type:		mus	t be present, t		
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydvic Sol L Pro-	escot depleted 10	mus elow dar	Hydric Soll	Present? Yes X	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydvic Soll Pu	escot depleted 6	mus elow dar	Hydric Soil איס צע Sow	Present? Yes <u>X</u>	No
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydvic Soll Power YDROLOGY Netland Hydrology Indicators: (Explain	escot depleted 6	mus elow der	Hydric Soll	Present? Yes <u>X</u>	No
Sandy Gleyed Matrix (S4)  Restrictive Layer (if observed):  Type: Depth (inches): Remarks: Hij divic Sol L Proceedings  YDROLOGY  Netland Hydrology Indicators: (Explain  Primary Indicators (minimum of one require	escot depleted 6	mus elow dar d.)	Hydric Soil	Present? Yes <u>X</u> (a.C.	No wo required)
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hij divic Sol L Pro- Primary Indicators (minimum of one required X Surface Water (A1)	observations in Remarks, if neede	mus elow daan d.)	the present, t Hydric Soil ער גיסא <u>Seconda</u>	Present? Yes <u>X</u> (a CL ary Indicators (minimum of the face Soil Cracks (B6)	No wo required)
	observations in Remarks, if neede	mus elow dar d.)	Hydric Soil - К. Sow <u>Seconda</u> Surd Surd	Present? Yes X	No wo required) urface (B8)
	observations in Remarks, if neede <u>ad: check all that apply)</u> <u>Aquatic Fauna (B13)</u> <u>Tilapia Nests (B17)</u> <u>Hydrogen Sulfide Odor</u>	mus elow dan d.)	Hydric Soil - K Spa - X Dra	Present? Yes X	No wo required) urface (B8)
	observations in Remarks, if neede <u>ed: check all that apply)</u> Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres	mus elow dar d.) (C1) o on Living Roots (	Hydric Soll Hydric Soll L Sow Seconda Sur X Spa X Dra C3) Dry	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) Insely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2)	No wo required) urface (B8)
	observations in Remarks, if neede ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I	mus علاصی طرعہ d.) (C1) on Living Roots ( ron (C4)	Hydric Soll Hydric Soll L Sow Seconda Suri X Dra C3) _ Dry Sall	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) arsely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5)	No wo required) urface (B8)
	observations in Remarks, if neede ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction	mus علاقت طرعت ط.) (C1) on Living Roots ( ron (C4) in Tilled Solls (C6	Hydric Soll Hydric Soll L Sow Seconda Sur Spa Spa Spa Spa Spa	Present? Yes X (a C (a C explored and the second se	No wo required) urface (B8)
	observations in Remarks, if neede d: check all that apply). Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7	mus علاقت طرعہ ط.) (C1) i on Living Roots ( ron (C4) in Tilled Soils (C6 )	Hydric Soil Hydric Soil K Sow Seconda Sur X Spa X Dra C3) Dry Sall )×Stu X Ged	Present? Yes X (a CL ary Indicators (minimum of the face Soil Cracks (B6) insely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) inted or Stressed Plants (D1) pomorphic Position (D2)	No wo required) urface (B8)
Sandy Gleyed Matrix (S4) testrictive Layer (if observed): Type: Depth (inches): termarks: Hij diric sol L P Wetland Hydrology Indicators: (Explain Primary Indicators (minimum of one requires X Surface Water (A1) X High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Algal Mat or Crust (B4) Iron Deposits (B5)	observations in Remarks, if neede ad: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows (	mus علاقت طرعت ط.) (C1) o on Living Roots ( ron (C4) in Tilled Solls (C6 ) C10) (Guarn, CNN	Hydric Soil Hydric Soil - Sow - Seconda _ Sur _ Sall )×Stu _ Stu _ Sall )×Stu _ Sta	Present? Yes X (a CL any Indicators (minimum of the face Soil Cracks (B6) ansely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) nted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3)	No wo required) urface (B8)
	observations in Remarks, if neede ad; check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows (C37) and American Samo	mus علاقت طرعت علاقت الم d.) (C1) on Living Roots ( ron (C4) in Tilled Solls (C6 ) C10) (Guarn, CNN a)	Hydric Soil Hydric Soil - Sow - So	Present? Yes X (a C any Indicators (minimum of the face Soil Cracks (B6) ursely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	No wo required) urface (B8)
	observations in Remarks, if neede 	mus علامی طرعہ d.) d.) d.) for Living Roots ( ron (C4) in Tilled Soils (C6 ) C10) (Guarn, CNM a) arks)	Hydric Soil Hydric Soil - Sow - S	Present? Yes X (a C (a C (a C) any Indicators (minimum of the face Soil Cracks (B6) ursely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) inted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)	No wo required) urface (B8)
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Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hy divic soll prove Workland Hydrology Indicators: (Explain Primary Indicators (minimum of one requires X Surface Water (A1) X High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (F Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	observations in Remarks, if neede ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Remain No Depth (inches):	mus علاقت طرعت ط.) (C1) on Living Roots ( ron (C4) in Tilled Solls (C6 ) C10) (Guarn, CNM a) arks)	Hydric Soll Hydric Soll - Sow - Seconda - Sur - S	Present? Yes X (a C (a C explosion of the second se	No wo required) urface (B8)
	observations in Remarks, if neede d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Remarks): No Depth (inches): No Depth (inches):	mus هل هری طرحیہ d.) d.) d.) d.) d.) con Living Roots ( ron (C4) in Tilled Soils (C6 ) C10) (Guarn, CNM a) arks)	Hydric Soll Hydric Soll - Sow - Seconda - Sura - Sura	Present? Yes X (a C (a C explored a c explor	No wo required) urface (B8) )
	observations in Remarks, if neede d: check all that apply). Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Rema No Depth (inches): No Depth (inches): No Depth (inches);	mus هلاهی طرعہ (C1) on Living Roots ( ron (C4) in Tilled Soils (C6) (C10) (Guarn, CNM a) arks) Wett	Hydric Soil Hydric Soil - Seconda Spa Spa Spa Spa Spa Spa Spa Sall )Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Stu Sta St	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) arsely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) gy Present? Yes X	No <u>No</u> required) urface (B8) ) e. ie.r.a.h.r No
Sandy Gleyed Matrix (S4) testrictive Layer (if observed): Type: Depth (inches): temarks: Hijdvic Sol L Provention Primary Indicators (minimum of one requires X Surface Water (A1) X High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (F Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes	observations in Remarks, if neede ad: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Remarks): No Depth (inches): No Depth (inches): No Depth (inches):	musi ها هدی طرعت ط.) (C1) o on Living Roots ( ron (C4) in Tilled Soils (C6 ) (C10) (Guarn, CNN a) arks) Wetti	Hydric Soil Hydric Soil - Sow - Seconda _ Sun X Spa _ Son C3) _ Dry _ Sall ) _ Kstu _ Sall ) _ Kstu _ Sha _ FAC and Hydrolog	Present? Yes X (a. C. any Indicators (minimum of the face Soil Cracks (B6) ursely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) Inted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) any Present? Yes X Season Season	No wo required) urface (B8) ) ) e_ie.e.e.h.e No
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydvic SolL Pro- Remarks: Soll Solution: Solution (A3) X High Water Table (A2) Saturation (A3) X High Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (Resonance Solutions: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Describe Recorded Data (stream gauge, model)	observations in Remarks, if neede ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Remarks): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches):	(C1) (C1) (C1) on Living Roots ( ron (C4) in Tilled Soils (C6) (C10) (Guarn, CNN a) arks) Wetti ious inspections),	Hydric Soil Hydric Soil - Sow - Seconda - Sun -	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) ursely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) nted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) gy Present? Yes X Season Stressed Plants	No <u>wo required</u> ) urface (B8) ) e. ie.k-ahu No
Sandy Gleyed Matrix (S4) testrictive Layer (if observed): Type: Depth (inches): temarks: Hydvic soll pro- temarks: Hydvic soll pro- type: Remarks: Hydvic soll pro- (DROLOGY Wetland Hydrology Indicators: (Explain Primary Indicators (minimum of one requires Surface Water (A1) X High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) X Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Describe Recorded Data (stream gauge, m	observations in Remarks, if neede ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheress Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows () 37) and American Samo Other (Explain in Remarkan No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches):	(C1) (C1) (C1) on Living Roots ( ron (C4) in Tilled Solis (C6) (C10) (Guarn, CNN a) arks) Wett: ious inspections),	Hydric Soil Hydric Soil - Sow - Seconda _ Sun _ Sali -	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) arsely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) Inted or Stressed Plants (D1) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) gy Present? Yes X Season Stressed Plants (D2) allow Aquitard (D3) C-Neutral Test (D5)	No <u>vo required</u> ) urface (B8) ) e. ie.e.a.h.e No
	observations in Remarks, if neede d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced I Recent Iron Reduction Thin Muck Surface (C7 Fiddler Crab Burrows ( 37) and American Samo Other (Explain in Rema No Depth (inches): No Depth (inches):	(C1) (C1) on Living Roots ( ron (C4) in Tilled Soils (C6) (C10) (Guarn, CNM a) arks) Weth ious inspections), (des of	Hydric Soll Hydric Soll K Sow Seconda Sur Sur Sur Sur Sur Sur Sur Sur	Present? Yes X (a C ary Indicators (minimum of the face Soil Cracks (B6) ursely Vegetated Concave S inage Patterns (B10) -Season Water Table (C2) t Deposits (C5) Inted or Stressed Plants (D1) comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) gy Present? Yes X Season a.ve. Steep by	No <u>vo required</u> urface (B8) ) e jekahu No

### M10 #1

# WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

estigator (s). Was about the analy Baileb analy	en clos	De local	relief (concave, convex,	nonel: CONCANO
hdform (hillslope, coastal plain, etc.):	5.01	<u> </u>	Datum:	Slope (%): 45%
	Level at	. 72	NIWI classific	ation: PEMAA
il Map Unit Name: <u>Dawaab sai pap c</u>	Vacue +	N No	//f no complete in P	omarks )
e climatic / hydrologic conditions on the site typical for this tin	ne or year? Y	es X No		Voc No V
e Vegetation, Soil, or Hydrology signi	ificantly distur	bed? No Are "	Normal Circumstances" p	present? Yes NO
e Vegetation, Soil, or Hydrology natu	rally problema	atic? NO (If nee	eded, explain any answe	irs in Remarks.) DOING (1911
JMMARY OF FINDINGS - Attach site map sh	owing san	npling point lo	ocations, transects	, important features, etc.
	v			
lydrophytic Vegetation Present? Yes No	X	Is the Sampled	Area	N.
lydric Soil Present? Yes No  Vest No  Vest No	~	within a Wetlan	d? Yes	NoX
Pemarks:	1.7	the inte	ind ilea tou	potens edge -
This is a crater, steep	SICEDU	SILL OPIC	and up land u	A- Not
The booded area is open write	n with	DIR - ludu	ic soil likely	One The douspislope
C Natoral (abs start	- Area .		······································	(,
EGETATION - Use scientific frames of plants		minant Indicator	Dominance Test wor	ksheet:
Free Stratum (Plot size: 2NTIRE CWATTER	% Cover Sp	ecies? Status	Number of Dominant S	Species
1. Levcaera		UPL	That Are OBL, FACW,	or FAC: (A)
2			Total Number of Domi	nant
3. Ritheration			Species Across All Str	rata: (B)
4. Pithecellopium dulce		UPL_	Percent of Dominant S	Species
5			That Are OBL, FACW,	, or FAC: (A/B)
- It (Cloude Charlenne (Diet size)	=T	otal Cover	Prevalence Index wo	orksheet:
Sapling/Shrub Stratum (Plot Size)			Total % Cover of:	Multiply by:
1,			OBL species	x1=
3			FACW species	x 2 =
4			FAC species	x 3 =
5.			FACU species	x 4 =
		Total Cover	UPL species	x 5 =
Herb Stratum (Plot size:)		FACIO	Column Totals:	(A) (B)
1. PENNESETUR P.		Fried	Prevalence Inde	ex = B/A =
2	······································		Hydrophytic Vegeta	tion Indicators:
3			X 1 - Rapid Test fo	r Hydrophytic Vegetation
			2 - Dominance T	est is >50%
5			3 - Prevalence Ir	ndex is $\leq 3.0^1$
7			Problematic Hyd	rophytic Vegetation <sup>1</sup> (Explain in
8			Remarks or in	the delineation report)
	=	Total Cover	<sup>1</sup> Indicators of hydric	soil and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless di	isturbed or problematic.
1. Mikawia Scawbeys		FACU	Hydrophytic	
2. clitonia		UPL	- Vegetation	
	=	Total Cover	Present?	Tes No

US Army Corps of Engineers

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Hawai'i and Pacific Islands Region -Version 2.0

C.	3	1	ŧ.
0	U	L	L

Sampling Point: MID #1

Donth	Matrix		Doday	Featuron				
inches)	<u>Color (moist)</u>	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
7-3	54R3/3	100					Iwe Silty	class
							- <del>1</del>	
1 11	-va ull	100						
5-16	516710							
								and the second se
	-							
	-							
Type: C=	Concentration, D=De	pletion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
ydric Soi	il Indicators:						Indicators fo	or Problematic Hydric Soils <sup>3</sup> :
_ Histos	ol (A1)		Sandy Redox	(S5)			Stratified	Layers (A5)
Histic I	Epipedon (A2)		Dark Surface	(S7)			Sandy M	lucky Mineral (S1)
Black I	Histic (A3)		Loamy Gleyed	d Matrix (F	-2)		Red Par	ent Material (F21)
Hydrog	gen Sumae (A4) Presence (A8)	^	Depieted Mat	urface (Fi	6)		Other (F	anow Dark Surface (1F12)
Z Deplei	ted Below Dark Surfa	ce (A11)	Depleted Darl	c Surface	(F7)		(L	spicari arriterizatio)
Thick I	Dark Surface (A12)		Redox Depres	ssions (F8	3)	<sup>3</sup> India	ators of hydrophy	ytic vegetation and wetland hydrolog
_ Sandy	Gleyed Matrix (S4)					m	ist be present, un	less disturbed or problematic.
Restrictive	e Layer (if observed	):						
Type: _							1	
Depth (	inches):						Hydric Soil P	resent? Yes No A
YDROLO	does not ane likel consolitions	incet in pue	sent fun	- 10 +1101 2010 (	dank	or o soul	pstope: Lope dus	ning duyen
YDROLO Wetland F	does not ane likel constitutos GY Hydrology Indicators	Hacet Ly pue No di s: (Explain o	critenia sent fun stint how	Ther 2012 (	ded.)	or of	ps lope : Lope du	ning duyen
YDROLO Wetland H	does not ave likel constitutos GY Hydrology Indicators dicators (minimum of	incet ly pue i No do s: (Explain o ione required	critenia sent fun stint how bservations in Rema check all that apply	ther 2002 ( rks, if nee	ded.)	0 60 5 1 5 502 f	ps (ope : Lope do) Lope do) Lope do)	y Indicators (minimum of two requires
YDROLO Vetland F Primary In Surfac	dices Not are likel conditions GY Hydrology Indicators dicators (minimum of ce Water (A1)	incet ly pre i No do s: (Explain o cone required	critenia sent fun stint how bservations in Rema <u>check all that apply</u> Aquatic Fa	- (e the 2602 ( rks, if nee ) una (B13)	ded.)	surf	<u>Secondar</u> Surfa	y Indicators (minimum of two requires ce Soil Cracks (B6)
YDROLO Vetland H Surfac High \ Sourfac	GY dices Not constructions; GY Hydrology Indicators dicators (minimum of ce Water (A1) Nater Table (A2) alien (A2)	incet ly pue i No do s: (Explain o ione required	critenia sent fun stist how bservations in Rema check all that apply Aquatic Fa Tilapia Nes Hurdrogen	rks, if nee ) una (B13) sts (B17)	dor (C1)	surf	<u>Secondar</u> <u>Secondar</u> <u>Surfa</u> <u>Spars</u>	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B6 age Patterns (B10)
YDROLO Wetland H Surfac High V Satura X Water	does not are like constrance GY Hydrology Indicators dicators (minimum of ce Water (A1) Nater Table (A2) ation (A3) Marks (B1)	incet ly pue i no do s: (Explain o ione required	critenia sent fun stist how bservations in Rema : check all that apply Aquatic Fa Tilapia Nes Hydrogen i Oxidized R	rks, if nee ) una (B13) sts (B17) Sulfide Or hizosohe	dor (C1)	ring Roots	<u>Secondar</u> <u>Secondar</u> <u>Surfa</u> <u>Drain</u> (C3) Dry-5	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B6 age Patterns (B10) season Water Table (C2)
YDROLO Vetland F Surfac High \ Satura X Water Sedirr	does Not ouve Likel consolitions GY Hydrology Indicators dicators (minimum of ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2)	incet ly pue i No do s: (Explain o one required	bservations in Rema check all that apply Aquatic Fa Tilapia Nes United R Presence of	rks, if nee ) una (B13) sts (B17) Sulfide Oc thizosphe of Reduce	dor (C1) res on Lived Iron (C	ring Roots	<u>Secondar</u> <u>Secondar</u> <u>Secondar</u> <u>Spars</u> (C3) <u>Dry-S</u> Salt [	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) Season Water Table (C2) Deposits (C5)
YDROLO Vetland F Surfac High \ Satura X Water Sedim Sedim Srff E	does Not ouve Likel conditions GY Hydrology Indicators dicators (minimum of ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3)	incet ly pre i No do s: (Explain o one required	Critenia SENT fun SENT fun SENT how bservations in Rema Check all that apply Aquatic Fa Aquatic Fa Dilapia Nes Hydrogen f Oxidized R Presence o Recent Iro	rks, if nee ) una (B13) sts (B17) Sulfide Oc hizosphe of Reduce n Reducti	dor (C1) res on Lived Iron (C on in Tille	ring Roots 4) d Soils (C	← Secondar 	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1)
YDROLO Wetland H Surfac High \ Satura ∑ Water Sedim Drift [ Algal	dices Not ouve likel conditions; GY Hydrology Indicators dicators (minimum of ce Water (A1) Nater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)	incet ly pre b No do s: (Explain o cone required	Critenia Sent fun Sent fun Sent fun Sent fun Sent fun Sent fun Sent fun Sent fun Sent fun Sent fun Aquatic Fa Aquatic Fa Aquatic Fa Dilapia Nes Hydrogen f Oxidized R Presence of Recent Iron Thin Muck	rks, if nee () una (B13) sts (B17) Sulfide Oc thizosphe of Reduce n Reducti Surface (	dor (C1) res on Lived Iron (C on in Tille C7)	ring Roots 4) d Soils (C	Secondar Secondar Surfa Surfa (C3)	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2)
YDROLO Wetland F Surfac High V Satura X Water Sedirr Drift E Algal Iron D	dices Not ouve likel conditions; GY Hydrology Indicators dicators (minimum of ce Water (A1) Nater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	incet ly pue i No do s: (Explain o one required	Critenia Sent fun Sent fun Sen	rks, if nee 2000 ( rks, if nee ) una (B13) sts (B17) Sulfide Oc thizosphe of Reduce n Reducti Surface ( ab Burrow	dor (C1) res on Lived Iron (C con in Tille C7) s (C10) (c	ring Roots 4) Guam, CN	Secondar Secondar Surfa Surfa (C3) Drain (C3) Dry Salt D (C3) Salt D (C3) Surfa (C3) Market Geometry MI, Shall	y Indicators (minimum of two requires ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3)
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Investigator(s): Dan Woosten	TMK/Parcei:
Landform (hillslope, coastal plain, etc.): <u>BOMD CRATER</u> Lat: Long: Long: Spil Map Unit Name: Davidan Saugan clay # 23	Local relief (concave, convex, none):       CONVEX         Datum:       Slope (%):       45°/6         NWI classification:       PEMIA
Are climatic / hydrologic conditions on the site typical for this time of year? Y Are Vegetation, Soil, or Hydrology significantly distur Are Vegetation, Soil, or Hydrology naturally problems SUMMARY OF FINDINGS – Attach site map showing san	'es X No (If no, explain in Remarks.) 'bed? Are "Normal Circumstances" present? Yes No X atic? (If needed, explain any answers in Remarks.) 日の 化の くに npling point locations, transects, important features, etc.
	4
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	Is the Sampled Area within a Wetland? Yes No X

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: eastine edge of possible)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksh Number of Dominant Spe That Are OBL, FACW, or	ieet: cies FAC:	(A)
2. Leucaena	25	_ <u>×</u>	UPL	Total Number of Dominar Species Across All Strata	it	(B)
4		- Total Co		Percent of Dominant Spe That Are OBL, FACW, or	cies FAC:	(A/B)
Sanling/Shrub Stratum (Plot size: )			VGI	Prevalence Index works	sheet:	
1				Total % Cover of:	Multiply by	<u>L</u>
2			· · · · · ·	OBL species	x1=	
2				FACW species	x 2 =	
3		1		FAC species	x 3 =	
4				FACU species	x 4 =	
o	-	- Total C		LIPI species	x 5 =	
Herb Stratum (Plot size:)			over	Column Totals:	(A)	(B)
2. Rennisetur		×	URL	Prevalence Index	= B/A =	-
3.				Hydrophytic Vegetation	n Indicators:	
4. Lantang camana			UPL	1 - Rapid Test for Hy	vdrophytic Vegetatio	on
5				2 - Dominance Test	is >50%	
6. Polypolium scoupending				3 - Prevalence Index	c is ≤3.0 <sup>1</sup>	
7		<u> </u>		Problematic Hydrop Remarks or in the	hytic Vegetation <sup>1</sup> (E delineation report)	xplain in
Woody Vine Stratum (Plot size:)		= Total Co	over	<sup>1</sup> Indicators of hydric soil be present, unless distu	and wetland hydrole bed or problematic.	ogy must
1. Canavalla Megalantha	-	UPL		Hydrophytic		
2		= Total C	over	Vegetation Present? Yes	No_X	_
Remarks: PIOT is along shouline hole is - on anea bet	of c week i	inaten saten	ang	o vegetation night water m	s where and	

US Army Corps of Engineers

rome Des	cription: (Descrit	le to the day	in needed to docu	ment the indicator	or continu u	le absolice of	Indicators.)
epth	Matrix	0/	Color (moist)	ox Features	1 002	Texture	Remarks
D	N CVA				<u></u>	HUND	Nondrive
5-3	1.0 YK	_ 3/6_			2	<u>in Jelay</u>	
3-16	10 VR 7/8	velle	w Deple	tion mate	MIX		dist. at
		100 6/					
ype: C=C	concentration, D=D	epletion, RM	=Reduced Matrix, M	IS=Masked Sand G	rains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
dric Soil	Indicators:			- 24		Indicators fo	or Problematic Hydric Soils":
_ Histoso	I (A1)		Sandy Redo	ox (S5)		Stratified	Layers (A5)
- Histic E	pipedon (A2)		Dark Surfac	e (S/) red Metrix (E2)		Sandy N	ant Material (51)
_ Black P	IISTIC (A3)		Loany Gley	atrix (F3)		Keu Par	allow Dark Surface (TE12)
_ Hydrog Muck P	resence (A8)		Bedox Dark	Surface (F6)		Other (E	xplain in Remarks)
C Deplete	ed Below Dark Sur	face (A11)	Depleted Da	ark Surface (F7)			
_ Thick D	ark Surface (A12)		Redox Depr	ressions (F8)	<sup>3</sup> Indicate	ors of hydroph	ytic vegetation and wetland hydrology
_ Sandy	Gleyed Matrix (S4)				must	be present, ur	less disturbed or problematic.
estrictive	Layer (if observe	d):					
Туре:		-					
Depth (In	nches):					Hydric Soil P	resent? Yes No
(DROLOG	lepleted Hydnic s	below Soil pu	dank su reserv T	nlace.			
'DROLOG	lepleted Hydnic s Ar ydrology Indicato	is: (Explain	dank so Lesen T observations in Rem	n Race			
/DROLOG	Hydnic s Hydnic s AY. ydrology Indicato	is: (Explain	dank so Lesen T observations in Ren ed; check all that app	narks, if needed.)		_ <u>Secondar</u>	y Indicators (minimum of two required
Primary Inco Surface	lepleted Hydnic s BY ydrology Indicato licators (minimum i e Water (A1)	is (Explain	dank so lesen T observations in Ren ed: check all that app Aquatic F	narks, if needed.) <u>ply)</u> Fauna (B13)		<u>Secondar</u> Surfa	<u>v Indicators (minimum of two required</u> ce Soil Cracks (B6)
DROLOG DROLOG Vetland H rimary Inc X Surfac K High V	Hydnic s Hydnic s Ar ydrology Indicato licators (minimum e Water (A1) Vater Table (A2)	ison l pr	dank so Lesen T observations in Rem ed: check all that app Aquatic F Tilapia N	narks, if needed.) ply) Fauna (B13) lests (B17)		_ <u>Secondar</u> Surfa Spara	<u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8)
DROLOG /etland H rimary Ind X Surfac K High W X Satura	Hydnic Hydnic AY. ydrology Indicato licators (minimum e Water (A1) Vater Table (A2) tion (A3)	below Soil pr rs: (Explain of one require	dank so esco observations in Rem ed: check all that app Aquatic F Tilapia N Hydroger	narks, if needed.) ply) Fauna (B13) lests (B17) n Sulfide Odor (C1)		<u>Secondar</u> Surfa Spars _X-Drain	<u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10)
DROLOG DROLOG /etland H rimary Inc X Surfac X High W X Satura Water Water	Hydnic Hydnic AY. ydrology Indicato licators (minimum e Water (A1) later Table (A2) tion (A3) Marks (B1)	Sol Pr rs: (Explain of one require	dank so esco observations in Ren ed: check all that app Aquatic F Tilapia N Hydroger Oxidized	narks, if needed.) oly) Fauna (B13) lests (B17) n Sulfide Odor (C1) I Rhizospheres on L	iving Roots (C	<u>Secondar</u> Surfa Spars _X_Drain 23)Dry-S	v Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2)
DROLOG Vetland H rimary Ind X Surface X High W X Satura Water Sedim	Hydnic Hydnic SY. ydrology Indicato licators (minimum e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	Is: (Explain	dank so esco observations in Ren ed: check all that app Aquatic F Tilapia N Hydroger Oxidized Presence	narks, if needed.) ply) Fauna (B13) lests (B17) n Sulfide Odor (C1) l Rhizospheres on L e of Reduced Iron ((	iving Roots (C	_ <u>Secondar</u> Surfa Spars Spars Spars Satt I Satt I	v Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5)
emarks: DROLOO Vetland H rimary Ind X Surface High W X Satura Water Sedimu Drift D	Hydnic S Hydnic S SY ydrology Indicato licators (minimum) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	is (Explain of one require	dank so escoT observations in Ren ed: check all that app Aquatic F Tilapia N Hydroge Oxidized Presence Recent li	narks, if needed.) bly) Fauna (B13) lests (B17) n Sulfide Odor (C1) l Rhizospheres on L e of Reduced Iron (( ron Reduction in Till of Sulface (C2)	iving Roots (C C4) Ied Soils (C6)	<u>Secondar</u> Surfa Spars Spars Spars Satt I Satt I Stunt	<u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) red or Stressed Plants (D1) cearbia Dacilian (D2)
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DROLOG	Hydnic Hydnic SY, ydrology Indicato licators (minimum e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aer Stained Leaves (B ervations:	ial Imagery (1 9)	dank so esco T observations in Ren ed: check all that app Aquatic F Tilapia N Tilapia N Tilapia N Oxidized Presence Recent h Thin Muc Fiddler C B7) and A Other (E	narks, if needed.) ply) Fauna (B13) lests (B17) n Sulfide Odor (C1) l Rhizospheres on L e of Reduced Iron (C ron Reduction in Till ck Surface (C7) Crab Burrows (C10) merican Samoa) xplain in Remarks)	iving Roots (C C4) led Soils (C6) (Guam, CNM	_ <u>Secondar</u> Surfa Spars X- Drain 23) Dry-S Salt I X Stunt X Stunt X Geor I, Shall FAC-	<u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) ted or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
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emarks: DROLOG Vetland H rimary Inc X Surface X Surface X Satura Water Sedima Drift Da Algal M Iron Da Inunda Water- Tield Obse Surface Wa Vater Tabl Saturation Includes c Describe R	Acpleted Hydnic S Ay ydrology Indicato licators (minimum e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aer Stained Leaves (B ervations: ater Present? e Present? apillary fringe) recorded Data (stree	ial Imagery (I 9) Yes Yes Yes Yes	dank so esco T observations in Rem ed: check all that app Aquatic F Tilapia N Aquatic F Tilapia N Hydroger Oxidized Presence Recent In Thin Muc Fiddler C B7) and A Other (E No Depth (i Depth (i Depth (i Depth (i	narks, if needed.) ply) Fauna (B13) lests (B17) n Sulfide Odor (C1) l Rhizospheres on L e of Reduced Iron (( ron Reduction in Till ck Surface (C7) Crab Burrows (C10) merican Samoa) xplain in Remarks) inches): inches): inches): al photos, previous in	iving Roots (C C4) Ied Soits (C6) (Guam, CNM Wetta nspections), if	Secondar Surfa Spars S Drain S Drain Stuni Stuni Stuni Shall Shall Shall Shall Shall Shall	v Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
DROLOG Vetland H 'rimary Ind X Surface X High W X Satura Water Sedimu Sedimu Algai M Iron De Inunda Uriface Water- Vater Tabl iaturation ncludes c Describe R	Acpleted Hydnic S Ay ydrology Indicato licators (minimum e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) tion Visible on Aer Stained Leaves (B ervations: ater Present? e Present? e Present? e Present? eposits (B5) tecorded Data (street)	ial Imagery (I 9) Yes Yes Yes Yes aam gauge, n	dank so esco T observations in Ren ed: check all that app Aquatic F Tilapia N Tilapia N Oxidized Presence Oxidized Presence Recent h Thin Mux Fiddler C B7) and A Other (E . No Depth (i . No Depth (i . No Depth (i . No Depth (i	narks, if needed.) ply) Fauna (B13) lests (B17) n Sulfide Odor (C1) l Rhizospheres on L e of Reduced Iron (C ron Reduction in Till ck Surface (C7) Crab Burrows (C10) merican Samoa) xplain in Remarks) inches): inches): inches): al photos, previous in	iving Roots (C C4) led Soils (C6) (Guam, CNM Wetta nspections), if	Secondar Surfa Spars S Drain S Drain Salt I Stuni Stall Shall Shall FAC-	y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) red or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
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MD2 MII #1

westigatorist. Daw Whoster			ТМК/	Parcel:
andform (hillstone coastal plain etc.): Stance 122	plateau		relief (concave, convex, no	nel: NOLE/ slight
	free react	2000	Datum:	Slone (%):
all Man Unit Name De 12 da 22 Church	coursex 4	F 19	NWI classification	n: PSMIA
Si Map Unit Name: <u>Oabaab eutrock</u>		Ver No	//f na evenier in Dom	
e climatic / hydrologic conditions on the site typical for	uns une or year?	Yes No	(if no, explain in Rem	arks.)
e Vegetation, Soli, or Hydrology	_ significantly dist	Indear MOD Are I	Normal Circumstances pres	Bentr res A NO
e Vegetation, Soil, or Hydrology	_ naturally problem	hatic? NG (If he	eded, explain any answers i	n Remarks.)
UMMARY OF FINDINGS – Attach site ma	p showing sa	mpling point lo	ocations, transects, in	mportant features, etc.
Hydrophytic Vegetation Present? Yes	NoX			
Hydric Soil Present? Yes	NoX	Is the Sampled	Area	
Wetland Hydrology Present? Yes X	No	within a wetian	107 Yes	NO <u> </u>
Remarks: avea sampled in cen	sten of i	ange previo	usby floodeder?	) site - Even
though ing drological inducators	ave Prese	ot soils a	we well brained	and
Veg is FACU				
EGETATION – Use scientific names of pl	ants.			
Trop Stratum (Plot size: ) 00 x100	Absolute Do	ominant Indicator	Dominance Test worksh	eet:
$\frac{1}{100} = \frac{1}{100} = \frac{1}$	70 Cuver S	Pecies	Number of Dominant Spec That Are OBL, FACW, or	Cies FAC: Ô (A)
NO TREES				
3.			Total Number of Dominan Species Across All Strata:	t (B)
4			Description of Description of Care	
5			That Are OBL, FACW, or	FAC: (A/B)
		Total Cover	Provalance Index works	hoof
Sapling/Shrub Stratum (Plot size: 50 × 50 )			Total % Cover of	Multiply by:
2			OBL species	x1=
3 NO SHRIDBS			FACW species	x 2 =
4.			FAC species	x 3 =
5			FACU species	x 4 =
Co <sup>2</sup> - 1		Total Cover	UPL species	x 5 =
Herb Stratum (Plot size: <u>SOKSO</u> )		× 1	Column Totals:	(A) (B)
1	05	V EACI	Prevalence Index =	- B/A =
2. MIMOSa poorca ( Deac)	_ 42	V turo	Hydrophytic Vegetation	Indicators:
4			1 - Rapid Test for Hy	drophytic Vegetation
5			2 - Dominance Test i	s >50%
6.			3 - Prevalence Index	is ≤3.0 <sup>1</sup>
7			Problematic Hydroph	vtic Vegetation <sup>1</sup> (Explain in
8			Remarks or in the	delineation report)
and the second second second		Total Cover	<sup>1</sup> Indicators of hydric soil a	and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless distur	bed or problematic.
1			Hydrophytic	
۷		Tatal Covor	Vegetation Procent2	No Y
		I Utal COVEI	riesent: 105	

US Army Corps of Engineers

mo2

100	-		
100		в.	
~	-		-

Sampling Point: Mil #1

epth Matrix	Redo	x Features			The state of the second st
nches) Color (moist) %	Color (moist)	<u>%</u> Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
-16 705YR3/3 100	2			silty .	
				clay	
			-		
ype: C=Concentration, D=Depletion,	RM=Reduced Matrix, M	S=Masked Sand C	Grains.	<sup>2</sup> Location	n: PL=Pore Lining, M=Matrix. or Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redo	x (S5)		Stratifie	d Layers (A5)
Histic Epipedon (A2)	Dark Surface	e (S7)		Sandy M	Nucky Mineral (S1)
Black Histic (A3)	Loamy Gley	ed Matrix (F2)		Red Pa	rent Material (F21)
Hydrogen Sulfide (A4)	Depleted Ma	atrix (F3)		Very Sh	allow Dark Surface (TF12)
_ Muck Presence (A8)	Redox Dark	Surface (F6)		Other (I	Explain in Remarks)
_ Depleted Below Dark Surface (A11	) Depleted Da	irk Surface (F7)	3		
_ Thick Dark Surface (A12)	Redox Depr	essions (F8)	India	ators of hydroph	hytic vegetation and wetland hydrology
Sandy Gleyed Matrix (S4)			mu	ust be present, u	niess disturbed or problematic.
estrictive Layer (if observed):					
Type: NONE				1	· · · ·
Depth (inches):				Hydric Soil	Present? Yes No X
then 16+ UNIFOLD hand concretions	r dank ved	duh less	than	1% very	small deenk
Then 16+ UNIFOLD hand concretions	r dank ved	duh less	then	1% very	small deenk
The N 16+ UNIFOLD hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp	lain observations in Ren	Darh Less	then	1% very	s thall deenk
The N 16+ UNIFOLD hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one rea	lain observations in Ren guired: check all that app	arks, if needed.)	thep	1% Dere y	ny Indicators (minimum of two required
The N 16+ UNIFOLD hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one res _ Surface Water (A1)	lain observations in Rem guired: check all that app Aquatic F	arks, if needed.)	than	1% Oere y	ny Indicators (minimum of two required ace Soil Cracks (B6)
The N 16+ UNIFOLD hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one read _ Surface Water (A1) _ High Water Table (A2)	lain observations in Rem <u>quired: check all that app</u> Aquatic F Tilapia N	arks, if needed.) bly) fauna (B13) ests (B17)	thes	1% Oere y <u>Seconda</u> Spa	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8)
The N 16+ UNIFOLD hand convertions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one read _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	lain observations in Rem <u>quired; check all that app</u> Aquatic F Tilapia N Hydrogen	arks, if needed.) bly) fauna (B13) ests (B17) n Sulfide Odor (C1	-then )	Seconda Surf Spa Drai	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10)
The N 16+ UNIFOLD hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one real 	lain observations in Rem <u>quired: check all that app</u> Aquatic F Tilapia N Hydrogen Oxidized	arks, if needed.) bly) fauna (B13) ests (B17) n Sulfide Odor (C1 Rhizospheres on	)	<u>Seconda</u> <u>Seconda</u> <u>Surf</u> <u>Spa</u> s (C3) <u>Dry</u>	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2)
The N 16+ UNIFOLD Land concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one real Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2)	lain observations in Ren guired: check all that app Aquatic F Tilapia N Hydrogen Oxidized Presence	ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron	) Living Roots (C4)		ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5)
The w 16+ UNIFOLD when d concretions (DROLOGY Vetland Hydrology Indicators: (Exp primary Indicators (minimum of one read 	lain observations in Rem guired: check all that app Aquatic F Tilapia N Hydroger Oxidized Presence Recent In	ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T	) Living Roots (C4) illed Soils ((	<u>Seconda</u> <u>Seconda</u> <u>Surf</u> <u>Spa</u> s (C3) <u>Dry</u> <u>Satt</u> 26) <u>K</u> Stu	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1)
The w 16+ UNIFOLD Ward Concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one read Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	lain observations in Ren guired: check all that app Aquatic F Tilapia N Tilapia N Hydroger Oxidized Presence Recent II Thin Muc	ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7)	) Living Roots (C4) illed Soils ((	<u>Seconda</u> Surf Spa Drai s (C3)Dry- Satt 26) ⊥ Stur ∠ Geo	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) morphic Position (D2)
The w 16+ UNIFOLD when a concretions (DROLOGY Vetland Hydrology Indicators: (Exp <u>trimary Indicators (minimum of one res</u> 	lain observations in Rem guired: check all that app Aquatic F Tilapia N Tilapia N Hydrogen Oxidized Presence Recent hi Thin Muc Fiddler C	ests (B13) arks, if needed.) bly) fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10	) Living Roots (C4) illed Soils ((	<u>Seconda</u> Surf Spa Spa Spa s (C3)Dry- Satt C6)Satt Satt C6)Stur Stur Surf Satt Satt Surf Satt Satt Surf Satt Surf Satt Satt Surf Satt Satt Surf Satt SATS SATS SATS SATS SATS 	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) flow Aquitard (D3)
The w 16+ UNIFOLD Water Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image	lain observations in Rem guired: check all that app Aquatic F Tilapia N Tilapia N Hydrogen Oxidized Presence Recent hi Thin Muc Fiddler C ery (B7) and A	ests (B13) arks, if needed.) by) fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa)	) Living Roots (C4) illed Soils (( ) (Guam, Cl		ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) tlow Aquitard (D3) C-Neutral Test (D5)
The w 16+ UNIFOLD Wetland Hydrology Indicators: (Exp Primary Indicators (minimum of one read Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9)	lain observations in Rem guired: check all that app Aquatic F Tilapia N Tilapia N Oxidized Presence Recent li Thin Muc Fiddler C ery (B7) and A Other (E	er h Less harks, if needed.) bly) fauna (B13) ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks	) Living Roots (C4) illed Soils (( ) (Guam, Cl		ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) Ilow Aquitard (D3) C-Neutral Test (D5)
The w 16+ UNIFOLD Wetland Hydrology Indicators: (Exp Primary Indicators (minimum of one rese 	lain observations in Rem <u>quired: check all that app</u> Aquatic F Tilapia N Tilapia N Tilapia N Oxidized Presence Recent li Thin Muc Fiddler C ery (B7) and A Other (E	Darks, if needed.) bly) Fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks	) Living Roots (C4) illed Soils (( ) (Guarn, Cl		ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) flow Aquitard (D3) C-Neutral Test (D5)
The w 16+ UNIFOLI were concretions DROLOGY Vetland Hydrology Indicators: (Exp trimary Indicators (minimum of one resonance) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	lain observations in Ren guired: check all that app Aquatic F Tilapia N Hydrogen Oxidized Presence Recent lit Thin Muc Fiddler C ery (B7) and A Other (E	Dark 1255 Dark 1255 Darks, if needed.) Darks, if needed.) Darks Sauna (B13) ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks Inches):	) Living Roots (C4) illed Soils (( ) (Guarn, Cl		ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) Ilow Aquitard (D3) C-Neutral Test (D5)
The w 16+ UNIFOLI word concretions DROLOGY Vetland Hydrology Indicators: (Exp rimary Indicators (minimum of one real Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Nater Table Present? Yes	lain observations in Ren guired: check all that app Aquatic F Tilapia N Hydrogee Oxidized Presence Recent li Thin Muc Fiddler C ery (B7) and A Other (E No Depth ( No Depth (	Dark 1255 Dark 1255 Darks, if needed.) Darks, if needed.) Darks, if needed.) Darks (B13) ests (B17) n Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks inches): inches):	) Living Roots (C4) illed Soils (C ) (Guam, Cl		ny indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) tlow Aquitard (D3) 2-Neutral Test (D5)
The w 16+ UNITOLIA Water Convertions (DROLOGY Vetland Hydrology Indicators: (Exp <u>Yimary Indicators (minimum of one rec</u> 	lain observations in Ren guired: check all that app Aquatic F Tilapia N Hydrogee Oxidized Presence Recent li Thin Muc Fiddler C ery (B7) and A Other (E No Depth ( No Depth ( No Depth ( Depth ( Depth ( Depth ( Depth ( Depth ( Depth (	er h Less harks, if needed.) by fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) crab Burrows (C10 merican Samoa) xplain in Remarks inches): inches): inches):	) Living Roots (C4) illed Soils (C ) (Guarn, Cl ) We inspections	Seconda 	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) thow Aquitard (D3) C-Neutral Test (D5)
The w 16+ UNITOLIA wand concretions (DROLOGY Vetland Hydrology Indicators: (Exp <u>rimary Indicators (minimum of one rea</u> 	lain observations in Rem guired: check all that app Aquatic F Tilapia N Hydrogen Oxidized Presence Recent lit Thin Muc Fiddler C and A Other (E No Depth ( No Depth ( No Depth ( Depth ( Depth ( Depth ( Depth ( Depth ( Depth (	Darks, if needed.) bly) Fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks inches): inches)	) Living Roots (C4) illed Soils (C ) (Guam, Cl ) We inspections	Seconda Seconda Surf Spa Drais S(C3) Dry- Satt S(C3) Stur Satt S(C3) Stur Satt S(C3) Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Stur Satt Stur Satt Stur Satt Stur	ny Indicators (minimum of two required ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) omorphic Position (D2) flow Aquitard (D3) -Neutral Test (D5)
The w 16+ UNIFOLD wend concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one read Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Mater Table Present? Yes Saturation Present? Yes Mater Table Present? Yes Mater Tab	lain observations in Rem <u>quired: check all that app</u> Aquatic F <u> </u>	Dark 1255 harks, if needed.) bly) Fauna (B13) ests (B17) In Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks inches): inches): inches): al photos, previous	) Living Roots (C4) illed Soils (C ) (Guam, Cl ) We inspections	Seconda Seconda Surf Spa Drais (C3) Dry- Satt Stur Solo Stur Stur Sha FAC MMI, Sha FAC MMI, Sha Sha Stur Stur Surf Stur Sha Stur Stur Stur Stur Sha Stur	y Present? Yes X Nother
The w 16t UNIFOLI wand concretions (DROLOGY Vetland Hydrology Indicators: (Exp <u>rimary Indicators (minimum of one rea</u> 	lain observations in Rem quired: check all that app Aquatic F Tilapia N Hydrogen Oxidized Presence Recent lit Thin Muc Recent lit Thin Muc Presence Recent lit Thin Muc Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Oxidized Presence Other (E No <u>X</u> Depth ( No <u>X</u> Depth ( No <u>X</u> Depth ( Sur use <u>y</u> & thes sttes	Darks, if needed.) by fauna (B13) ests (B17) in Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Crab Burrows (C10 merican Samoa) xplain in Remarks inches): inches): inches): inches): inches): or Prove w Or Prove w	) Living Roots (C4) illed Soils (( ) (Guam, Cl ) (Guam, Cl ) We inspections	Seconda Seconda Surf Spa Drais S(C3) Dry- Satt S(C3) Stur Satt S(C3) Stur Satt S(C3) Stur Satt Stur Satt Stur Satt Stur Satt Stur Satt Stur Stur Satt Stur Stur Stur Satt Stur	y Present? Yes X Nother Notes to pean Nother Standard Construction Nother Standard Construction Notes (B6) Season Water Table (C2) Deposits (C5) Inted or Stressed Plants (D1) morphic Position (D2) How Aquitard (D3) S-Neutral Test (D5) Nother Nother Nother Nother Notes to pean May be many wal
The w 16t UNITOLL hand concretions (DROLOGY Vetland Hydrology Indicators: (Exp Primary Indicators (minimum of one re- 	lain observations in Ren guired: check all that app Aquatic F Tilapia N Hydrogee Oxidized Presence Recent II Thin Muc Presence Recent II Thin Muc Oxidized Presence Recent II Thin Muc Other (E No <u>X</u> Depth ( No <u>X</u> Depth ( Sur very & thes sites	Dark 1255 Dark 1255 Darks, if needed.) Darks, if needed.) Darks, if needed.) Darks (B13) ests (B17) In Sulfide Odor (C1 Rhizospheres on e of Reduced Iron ron Reduction in T ck Surface (C7) Drab Burrows (C10 merican Samoa) xplain in Remarks inches): inches): inches): inches): inches): inches): inches): inches): inches): inches): I photos, previous Opp Proos on Manks	) Living Roots (C4) illed Soils (( ) (Guarn, Cl ) (Guarn, Cl ) (Guarn, Cl ) We inspections	Seconda Seconda Suff Spa Drai S(C3) Dry- Satt S(C3) Stur S(C3) Stur S	y Present? Yes X No#

THE THEN THE AS A CHOND DOTORHUNDTION	City		Sampling Date	12-3-14 Time: 0735
	State/Terr/Co	amith · C	UM) Island: TIA	(AL) Sampling Point M
Application Divers			TM	W/Parcol
nvestigator(s): VAN WOOSTER				
andform (hillslope, coastal plain, etc.): <u>elevated platea</u>	-0	_ Local re	eller (concave, convex,	none):
.at: Long:			Datum:	Slope (%):
Soil Map Unit Name: Dawdaw church complex			NWI classific	ation: <u>remin</u>
re climatic / hydrologic conditions on the site typical for this time of year	ar? Yes X	No	(If no, explain in Re	emarks.)
re Vegetation, Soil, or Hydrology significantly (	disturbed? 100	Are "No	rmal Circumstances" p	resent? Yes X No
are Vegetation , Soil , or Hydrology naturally pro	blematic? NO	(If need	ed, explain any answer	rs in Remarks.)
	a a man lla a m	a lué la a	ationa transacta	immentant features ata
SUMMARY OF FINDINGS - Attach site map showing	samping p	oint ioc	duons, uansects	, important reatures, etc.
Hydrophytic Vegetation Present? Yes No X	In the Co		1	
Hydric Soil Present? Yes No X	IS the Sa	Wotland	Voc	No X
Wetland Hydrology Present? Yes X No	within a	vyenano	Tes	
Remarks: quea squipled is within	s pueblo	USIY	Ploodeb(?)	stand al
minosa- Soils are not lug dric	, 'veg 1	5 100	t' hypric a	as ingonology
h manarhal				
/EGETATION - Use scientific names of plants				
Absolute	Dominant Indi	icator 1	Dominance Test work	sheet'
Tree Stratum (Plot size:) % Cover	Species? Si	tatus	Number of Dominant S	necies
1			That Are OBL, FACW,	or FAC: (A)
2. NO TREES			Fotal Number of Domin	ant
3		!	Species Across All Stra	ita: (B)
4			Percent of Dominant S	necies
5			That Are OBL, FACW,	or FAC: (A/B)
	_ = Total Cover	H	Provalence Index wer	kehaot:
Sapling/Shrub Stratum (Plot size:)			Total % Cover of:	Multiply by
۱ <u>.                                    </u>			OBI species	<u> </u>
2			FACW species	x 2 =
3			FAC species	x 3 =
4			FACU species	x 4 =
	= Total Cover		UPL species	x 5 =
Herb Stratum (Plot size: 100×160 )	_ = Total Cover		UPL species Column Totals:	x 5 = (B)
Herb Stratum (Plot size: 100×160_)           1	= Total Cover		UPL species Column Totals:	x 5 = (A) (B)
Herb Stratum (Plot size: 100×160) 1 2100% dead munosa pudica	_ = Total Cover	Acu	UPL species Column Totals: Prevalence Index	x 5 = (B) (A) (B) x = B/A =
5 <u>Herb Stratum</u> (Plot size: <u>100×160</u> ) 1 2 <u>100%</u> <u>deab</u> <u>миноза</u> р <u>удка</u> 3	_ = Total Cover	Acu	UPL species Column Totals: Prevalence Index Hydrophytic Vegetati	x 5 = (B) (A) (B) (c = B/A = (on Indicators:
Herb Stratum (Plot size: 100×160) 1 2. 100% dead minosa pudica 3 4. New growth of monodica charact	_= Total Cover 	Acu_	UPL species Column Totals: Prevalence Index Hydrophytic Vegetati X 1 - Rapid Test for	x 5 = (B) (A) (B) (c = B/A = ion Indicators: Hydrophytic Vegetation
Herb Stratum (Plot size: 100×160_) 1 2. 100% dead minosa pudica 3 4 rew growth of monodica shawart 5 consider up up some bacations	_ = Total Cover 	Acu Acu	UPL species Column Totals: Prevalence Index Hydrophytic Vegetati X 1 - Rapid Test for 2 - Dominance Te	x 5 = (B) (A) (B) (c = B/A = ion Indicators: Hydrophytic Vegetation st is >50%
Herb Stratum (Plot size: 100×160_) 1 2	_ = Total Cover	Acu Ac	UPL species Column Totals: Prevalence Index Hydrophytic Vegetati X 1 - Rapid Test for 2 - Dominance Te 3 - Prevalence Ind	x 5 =  (A) (B) (a) (b) (c) = B/A = (c) Indicators: Hydrophytic Vegetation st is >50% lex is $\leq 3.0^{1}$

= Total Cover

= Total Cover

strange anoa. covered with dead (by plooding?) wimosa

)

US Army Corps of Engineers

7 8

1.

2.

Remarks:

= FACU

Woody Vine Stratum (Plot size:

Hawai'i and Pacific Islands Region -Version 2.0

NO NO

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Yes\_

Hydrophytic

Vegetation

Present?

## MD2

rofile Description: (Describe to the depth needed to document the indic	cator or confirm the	e absence of	f Indicators.)
Pepth Matrix Redox Features			
nches) Color (moist) % Color (moist) % Ty	/pe <sup>1</sup> Loc <sup>2</sup>	Texture _	Remarks
0-16 TISYR 3/4 100	5	ilty_	
		clay	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa	nd Grains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
lydric Soil Indicators:		Indicators f	or Problematic Hydric Soils <sup>3</sup> :
Historol (A1) Sandy Redox (S5)		Stratifie	d Lavers (A5)
Histic Enjandon (A2) Dark Surface (S7)		Sandy M	Aucky Mineral (S1)
Black Histic (A3) Loamy Gleved Matrix (F2)		Red Par	rent Material (F21)
Hydrogen Sulfide (A4) Depleted Matrix (F3)		Very Sh	allow Dark Surface (TF12)
Muck Presence (A8) Redox Dark Surface (F6)		Other (E	Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7	7)	·	
Thick Dark Surface (A12) Redox Depressions (F8)	<sup>3</sup> Indicato	rs of hydroph	vtic vegetation and wetland hydrolog
Sandy Gleved Matrix (S4)	must b	pe present, u	nless disturbed or problematic.
Restrictive Laver (if observed):			
Type			
Depth (inches):		Hydric Soil I	Present? Yes No X
is well draived			
y well drawed YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede	ed.)		
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply)	:d.)	Seconda	ry Indicators (minimum of two require
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B13)	ed.)	<u>Seconda</u> Surfa	ry Indicators (minimum of two require ace Soil Cracks (B6)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) 	:d.)	Seconda	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) 	ed.)	<u>Seconda</u> Surfa Spar Drai	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) 	ed.) r (C1)	Seconda Surfa Spar Drais	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) 	ed.) r (C1) s on Living Roots (C	Seconda Surfa Spar Drais 3) Dry-	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Dependent (C5)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) 	r (C1) s on Living Roots (C Iron (C4)	Seconda Surfa Spai Draii 3) Dry- Salt	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17) Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) Oxidized Rhizospheress Sediment Deposits (B2) Presence of Reduced I Drift Deposits (B3) Recent Iron Reduction	r (C1) s on Living Roots (C Iron (C4) in Tilled Soils (C6)	Seconda Surfa Span Drain 3) Dry- Salt Start	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17) Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) Oxidized Rhizospheress Sediment Deposits (B2) Presence of Reduced I Drift Deposits (B3) Recent Iron Reduction Algal Mat or Crust (B4) Thin Muck Surface (C7	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Soils (C6) 7)	Seconda Surfa Spai Drain 3) Dry- Salt Salt Stur Geo	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if neede Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17) Saturation (A3) Hydrogen Sulfide Odor Water Marks (B1) Oxidized Rhizospheress Sediment Deposits (B2) Presence of Reduced I Drift Deposits (B3) Recent Iron Reduction Algal Mat or Crust (B4) Thin Muck Surface (C7 Iron Deposits (B5) Fiddler Crab Burrows (	r (C1) s on Living Roots (C Iron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI	Seconda Surfa Span Drain 3) Dry- Salt Salt Stur Geo , Sha	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) tited or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required; check all that apply)	r (C1) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI pa)	Seconda Spar Spar Drain 3) Dry- Salt Stur Stur Geo , Shar FAC	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI pa) arks)	3) <u>Seconda</u> Surfa Spar Drain 3) Dry- Salt X. Stur X. Stur Star FAC	ny Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) need or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) c-Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI pa) arks)	<ul> <li><u>Seconda</u></li> <li> Spar</li> <li> Drain</li> <li>3) Dry-</li> <li> Salt</li> <li>X Stur</li> <li>X Geo</li> <li> Shal</li> <li> FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) need or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) 2-Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI catks)	<ul> <li><u>Seconda</u></li> <li>Surfi</li> <li>Spar</li> <li>Draiti</li> <li>Dry-</li> <li>Salt</li> <li>X Geo</li> <li>Shai</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) need or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Soils (C6) r) (C10) (Guam, CNMI pa) arks)	<ul> <li><u>Seconda</u></li> <li>Spar</li> <li>Drait</li> <li>Dry-</li> <li>Salt</li> <li>X Geo</li> <li>Shai</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) need or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) 2-Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Soils (C6) 7) (C10) (Guam, CNMI pa) arks)	<ul> <li>Seconda</li> <li>Spar</li> <li>Drain</li> <li>Dry-</li> <li>Salt</li> <li>X Geo</li> <li>Shal</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI pa) arks) Wetlar	<ul> <li>Seconda</li> <li>Surfi</li> <li>Spar</li> <li>Drain</li> <li>3) Dry-</li> <li>Salt</li> <li>X Geo</li> <li>, Shai</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required: check all that apply)         Surface Water (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor         Water Marks (B1)       Oxidized Rhizospheres         Sediment Deposits (B2)       Presence of Reduced I         Drift Deposits (B3)       Recent Iron Reduction         Algal Mat or Crust (B4)       Thin Muck Surface (C7         Iron Deposits (B5)       Fiddler Crab Burrows (         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Surface Water Present?       Yes         No NO       Depth (inches):         Water Table Present?       Yes         No NO       Depth (inches):         Surface Water Present?       Yes         No NO       Depth (inches):         Saturation Present?       Yes         No NO       Depth (inches):         Saturation Present?       Yes         No NO       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	ed.) r (C1) s on Living Roots (C lron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI pa) arks) Wetlar rious inspections), if	<ul> <li><u>Seconda</u></li> <li>Spar</li> <li>Drain</li> <li>Dry-</li> <li>Salt</li> <li>X Geo</li> <li>Shai</li> <li>FAC</li> <li>nd Hydrolog</li> <li>available:</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) need or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetiand Hydrology Indicators: (Explain observations in Remarks, if needed Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C iron (C4) in Tilled Soils (C6) 7) (C10) (Guam, CNMI ba) arks) Wetlar rious inspections), if	<ul> <li><u>Seconda</u></li> <li>Surfa</li> <li>Spaa</li> <li>Draii</li> <li>Dry-</li> <li>Salt</li> <li>X. Stur</li> <li>X. Geo</li> <li>Shai</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) nted or Stressed Plants (D1) morphic Position (D2) New Aquitard (D3) -Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C iron (C4) in Tilled Soils (C6) 7) (C10) (Guam, CNMI ba) arks) Wetlar tious inspections), if	<ul> <li>Seconda</li> <li>Surfa</li> <li>Spal</li> <li>Drain</li> <li>Dry-</li> <li>Salt</li> <li>X Geo</li> <li>Sha</li> <li>FAC</li> </ul>	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Now Aquitard (D3) S-Neutral Test (D5)
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C liron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI ba) arks) Wetlar rious inspections), if all dealer	Seconda 	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) S-Neutral Test (D5) y Present? Yes <u>No</u>
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if neede         Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C liron (C4) in Tilled Soils (C6) 7) (C10) (Guam, CNMI ba) arks) Wetlar rious inspections), if af dea E NOUGH T	Seconda Surfa Surfa Surfa Surfa Draina 3) Draina 3) Draina 3) Draina 3) Draina 3) Draina 3) Shall	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Ilow Aquitard (D3) 2-Neutral Test (D5) y Present? Yes <u>No</u> MDSA - Fload iby off the minosa
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if needed Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C liron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI ba) arks) Wethar rious inspections), if af deal E woogh T	Seconda Surfa Surfa Salt X Geo Salt X Geo Shal FAC available: Call Call	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Itow Aquitard (D3) 2-Neutral Test (D5) y Present? Yes X No MDSA - Fload ibay off the minosa
YDROLOGY         Wetland Hydrology Indicators: (Explain observations in Remarks, if needed Primary Indicators (minimum of one required; check all that apply)	ed.) r (C1) s on Living Roots (C liron (C4) in Tilled Solls (C6) 7) (C10) (Guam, CNMI ba) arks) Wethar rious inspections), if af deal E NOUGH T	A Seconda Surfa Span Drain Drain Dry- Salt X Stur X Geo FAC A Hydrolog available: A V-CCC	ry Indicators (minimum of two require ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8 nage Patterns (B10) Season Water Table (C2) Deposits (C5) Ited or Stressed Plants (D1) morphic Position (D2) Itow Aquitard (D3) 2-Neutral Test (D5) y Present? Yes X No MDSA - Fload ibay off the minosa



roject/Site: TINIAN USETLAND DETERMINICIO	City:	Sampling Date:	Time: 0930
oplicant/Owner:	_ State/Terr/Comlth.:	CNMI Island: TINIAL	Sampling Point: <u>M2</u>
vestigator(s): DIAN LOODSTER		TMK/Parc	:el:
andform (hillslope, coastal plain, etc.): <u>Elevated Plateau</u>	Loca	I relief (concave, convex, none):	
at: Long:		Datum:	Slope (%):
oil Map Unit Name: Laolaco clay UNIT 3	1	NWI classification: _	PEMIA
e climatic / hydrologic conditions on the site typical for this time of yea	r? Yes X No	(If no, explain in Remarks	.)
re Vegetation, Soil, or Hydrology significantly c	disturbed? No Are "	Normal Circumstances" present	? Yes X No
e Vegetation, Soil, or Hydrology naturally prol	blematic? NO (If ne	eded, explain any answers in Re	emarks.)
UMMARY OF FINDINGS - Attach site map showing	sampling point lo	ocations, transects, imp	ortant features, etc.
Hydrophytic Veretation Present? Ves X No			and the second sec
Hydric Soil Present? Yes X No	Is the Sampled	Area	
Wetland Hydrology Present? Yes X No	within a wetlan		
Remarks: SMALL AREA (15'×15) of how a MUCH LARGER AREA downwated where vegetation (obland FACW-)):	hogeneous IP by Pennise present	nume "wetcand is	082) iorthin present
EGETATION – Use scientific names of plants.			
Tree Stratum (Plot size: Mayou Acues) Absolute	Dominant Indicator Species? Status	Dominance Test worksheet:	~
1. MA TREES PRISSIOT	- Abroiter - Charles	Number of Dominant Species That Are OBL, FACW, or FAC	(A)
2		T-t-1 Mumber of Dominant	
3.		Species Across All Strata:	(B)
4		Percent of Dominant Species	
5		That Are OBL, FACW, or FAC	: (A/B)
Conting/Shruh Stratum (Plat size: Ad sure Acues)	= Total Cover	Prevalence Index workshee	ti
1 NO SUPRES PRESINT		Total % Cover of:	Multiply by:
2.		OBL species	x1=
3.		FACW species	x 2 =
4		FAC species	x 3 =
5	<u></u>	FACU species	x 4 =
HILL STOLE ACTIVES	= Total Cover	UPL species	x 5 =
Hero stratum (Protisize: 15 x 15 )	X OBI	Column Totals:	(A) (B)
2		Prevalence Index = B/A	۱=
3 Proto burger HISTICG SULVOTE	FACE-	Hydrophytic Vegetation Ind	icators:
4. PASPALUM CONJUGATUM_	w	X 1 - Rapid Test for Hydrop	phytic Vegetation
5		2 - Dominance Test is >5	50%
6		3 - Prevalence Index is ≤	3.0 <sup>1</sup>
7		Problematic Hydrophytic	Vegetation <sup>1</sup> (Explain in
8	مت بقت ا		ioneon report
Woody Vine Stratum (Plot size:)	_ = Total Cover	<sup>1</sup> Indicators of hydric soil and be present, unless disturbed	wetland hydrology must or problematic.
1		Hydrophytic	
2.		Vegetation	No
	- Intal Covor	A DECK DATE OF A DECK DECK DECK DECK DECK DECK DECK DECK	

US Army Corps of Engineers

Sampling Point: SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Depth Matrix Type<sup>1</sup> Loc<sup>2</sup> Texture Remarks Color (moist) % (inches) Color (moist) 0-5" 2+ 6 5/1 5-16 CUNTER hlade conactions Loo hole <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils<sup>3</sup>: Hydric Soil Indicators: \_\_\_\_ Stratified Layers (A5)-\_\_\_ Histosol (A1) Sandy Redox (S5) \_\_\_\_ Sandy Mucky Mineral (S1) Histic Epipedon (A2) Dark Surface (S7) \_\_\_\_ Red Parent Material (F21) Black Histic (A3) Loamy Gleyed Matrix (F2) \_\_\_\_ Very Shallow Dark Surface (TF12) \_\_\_\_ Hydrogen Sulfide (A4) X Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) Muck Presence (A8) X Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology \_\_\_\_ Thick Dark Surface (A12) \_\_\_ Redox Depressions (F8) must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Hydric Soil Present? Yes No Depth (inches): Replated welow dank surface Remarks: HYDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if needed.) Secondary Indicators (minimum of two required) Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6) X Surface Water (A1) \_\_\_\_ Aquatic Fauna (B13) \_\_\_\_ Sparsely Vegetated Concave Surface (B8) X High Water Table (A2) \_\_\_\_ Tilapia Nests (B17) \_\_\_\_ Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) X Saturation (A3) \_\_\_\_ Oxidized Rhizospheres on Living Roots (C3) Dry-Season Water Table (C2) \_\_\_\_ Water Marks (B1) Salt Deposits (C5) Presence of Reduced Iron (C4) Sediment Deposits (B2) X Stunted or Stressed Plants (D1) \_\_ Recent Iron Reduction in Tilled Solls (C6) X Drift Deposits (B3) X. Geomorphic Position (D2) X Algal Mat or Crust (B4) Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guam, CNMI, Shallow Aguitard (D3) Iron Deposits (B5) \_\_\_\_ FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) and American Samoa) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Yes X No Depth (inches): Surface Water Present? Water Table Present? Yes X No Depth (inches): Wetland Hydrology Present? Yes X No Yes X No Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks. GROUND WATER IN TEST PIT - neets hydrology criteria



Project/Site: TINIAN WETLAND DETERMINATION	City: Sampling Date: 12-3-14 Time: 1020
Applicant/Owner:	State/Terr/Comlth.: CD411 Island: TINIAN Sampling Point: M26.#2
Investigator(s): DAN WODDSTER	TMK/Parcel:
Landform (hillstope, coastal plain, etc.):	Local relief (concave, convex, none): SIDE OF 510 P 2 WOR2
Lat: Long:	Datum: Slope (%): 6 %
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly dist	urbed? NO Are "Normal Circumstances" present? Yes 🗶 No
Are Vegetation, Soil, or Hydrology naturally problem	matic? NO (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No 'X'	
Hydric Soil Present? Yes No X	Is the Sampled Area
Wetland Hydrology Present? Yes No	
Remarks: LOCATION OF TEST PIT IS ON 510 PRIMINATED DEPRESSION. NOT able TO PLODING	DEL R 31 ABOUR FLOODED RENNISETUM D'dig downslope because of

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species
2. NO TREES			Total Number of Dominant Species Across All Strata: (B)
4 5	_	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1.			Prevalence Index worksheet: Total % Cover of:Multiply by:
2			OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =           FACU species         x 4 =
5) Herb Stratum (Plot size:) 1)		_ = Total Cover	PACO species         x 4 =           UPL species         x 5 =           Column Totals:         (A)           Prevalence Index         = B/A =
2	100	GACU	Hydrophytic Vegetation Indicators:         ▲       1 - Rapid Test for Hydrophytic Vegetation         _       2 - Dominance Test is >50%         _       3 - Prevalence Index is ≤3.0 <sup>1</sup> _       Problematic Hydrophytic Vegetation <sup>1</sup> (Explain in Remarks or in the delineation report)
8	,	_ = Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2	<u> </u>	_= Total Cover	Hydrophytic Vegetation Present? Yes <u>No X</u>
Remarks: auca sample le was field scenoss (500'	) guon	upslope a be Epond	of flooded PENNe setom bea wetland

			12-9	14
DIL			Sampling Point:	
rofile Description: (Describe to the d	lepth needed to document the indicator or	confirm the abser	ice of indicators.)	
Depth Matrix	Redox Features	Loc <sup>2</sup> Texture	Remarks	
ncnes) Color (molst) %		LOG TEXLILE	Keinana	
FUD als				
0-10 2415314 101	0 - ved > 190			
	<u>954R3/1</u>	SILty	· · · · · · · · · · · · · · · · · · ·	
	The second se			
······································				
ype: C=Concentration, D=Depletion, F	RM=Reduced Matrix, MS=Masked Sand Grain	is. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.	3.
ydric Soil Indicators:		Indicat	ors for Problematic Hydric Solis	
_ Histosol (A1)	Sandy Redox (S5)	Su	attileu Layers (A5) ndv Mucky Mineral (S1)	
Black Histic (A3)	Loamy Gleved Matrix (F2)	Sa Re	d Parent Material (F21)	÷ -, .
Hydrogen Sulfide (A4)	Depleted Matrix (F3)	Ve	ry Shallow Dark Surface (TF12)	
Muck Presence (A8)	Redox Dark Surface (F6)	Ot	ner (Explain in Remarks)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)			1.1.1
_ Thick Dark Surface (A12)	Redox Depressions (F8)	"Indicators of hy	drophytic vegetation and wetland h	ydrology
_ Sandy Gleyed Matrix (S4)		must be prese	ent, unless disturbed or problematic	3.
ASTRIPTIVA I SVAF HT DOSPIVADI				
Trees				
Type:		Hydric	Soil Present? Ves No	X
Type: Depth (inches): Remarks: TEST PIT Too On deptedious	D FAR UPSIOPE TO AUDIT	Hydric D Flooded	Soil Present? Yes No AREA - NO CONCENT	n X tractio
Type: Depth (inches): Remarks: TEST PIT Too On deptedious (DROLOGY	D FAR UPSIOPE TO AUDIT	Hydric D Flooded	Soil Present? Yes No AREA - NO CONCEN	x traction
Type: Depth (inches): Remarks: TEST PIT Too On depiedious (DROLOGY Vetland Hydrology Indicators: (Expla	の FAR じやらしのを TO AUDIT ain observations in Remarks, if needed.)	Hydric D F100DED	Soil Present? Yes No AREA - NO CONCEN	n X truction
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US Army Corps of Engineers

# BATEA RACE WAY

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#### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Project/Site: TINIAN WETLAND DETERMI	NONTION	City:	Sampling Date:	2-2-14 Time: 0945
Applicant/Owner:		_ State/Ten/Comlth.:	CIUMI Island: TINI	AN Sampling Point: BR
nvestigator(s): Day wooster			ТМК	/Parcel:
andform (hillslope, coastal plain, etc.): Level and	a at	Ploteni Loca	al relief (concave, convex, n	one): Leocl
Lat: Long:			Datum:	Slope (%): LEVEL
Soil Man Unit Name: Say parts Class #4	13		NWI classificati	ion: PEMIA
Are climatic / hydrologic conditions on the site typical for the	is time of yea	r2 Ves 'X No	(If no explain in Ren	narks )
Are Vegetation Soil or Hydrology	eignificantly o	listurbed?	Normal Circumstances" pre	sont? Vas X No
Are Vegetation, Soll, or Hydrology	activelly area	lomatica LL D (Enc	normal circumstances pre	in Demorke )
Are vegetation, Soli, or Hydrology	naturany prot		eueu, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling point l	ocations, transects, i	important features, etc.
Hydrophytic Vegetation Present?     Yes X       Hydric Soil Present?     Yes       Wetland Hydrology Present?     Yes X	No No	Is the Sampled within a Wetlan	l Area nd? Yes	_ No_X
Remarks: cinea is at base along shoneline Then melan ityduic - MEETS WL ity)	of ste steps Deocog	ep hillsid. fonther of Y CRITERIA	e - Hibiscus CF o slope - sails	ACW-) doin 100th
VEGETATION – Use scientific names of plan	nts.			
Tree Stratum (Plot size: <u>らの水らの</u> )	Absolute <u>% Cover</u>	Dominant Indicator Species? Status	Dominance Test works Number of Dominant Spe That Are OBD, FACW, or	heet: ecies FAC: Z (A)
2. Hibiscos		X FACW-		
3. Melapoleinis		X UPL	Species Across All Strata	a: <u>2</u> (B)
4. FICUS P.		FAC	Persont of Dominant Con	ulan.
5			That Are OBL, FACW, or	FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Prevalence Index works	sheet: Multiply by:
2. Louraspa		UPL	OBL species	
3			FACW species	x 2 =
4			FAC species	x 3 =
5			FACU species	x 4 =
		_ = Total Cover	UPL species	x 5 =
Herb Stratum (Plot size:)			Column Totals:	(A) (B)
		· · · · · · · · · · · · · · · · · · ·	Prevalence Index	= B/A =
2			Hydrophytic Vegetation	n Indicators:
аа			1 - Rapid Test for Hy	vdrophytic Vegetation
5			X 2 - Dominance Test	is >50%
6.			3 - Prevalence Index	x is ≤3.0 <sup>1</sup>
7			Problematic Hydrop	hytic Vegetation <sup>1</sup> (Explain in
8	<u>.</u>		Remarks or in the	delineation report)
Woody Vine Stratum (Plot size:)	-	= Total Cover	<sup>1</sup> Indicators of hydric soil be present, unless distur	and wetland hydrology must bed or problematic.
2 Mill AND		· <u> </u>	Hydrophytic	
2		= Total Cover	Vegetation Present? Ves	XNO
Remarks: Plot 15 ON BARE EAR HIBISCUS TILLEACEUS (FACU GOES Phone Hibiscus to Me	TH in U-) 15 lawolef	b) o vecetat dominant vis - Mangi	outher ups fouther ups	Chitekia

US Army Corps of Engineers

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rofile Descr	iption: (Describe to	o the depth n	eeded to document the indicator o	or confirm the a	bsence of Indi	cators.)	
)epth	Matrix	0/	Redox Features	Loo <sup>2</sup> To	veries	Pomarke	
ncnes)	Color (moist)						
-14	· 10 5 442 9/9	100			<u>+y _ (</u>	00 H012120103	
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÷ )							
						ar	_
	ncentration D=Denie	etion RM=Re	duced Matrix MS=Masked Sand Gra		<sup>2</sup> l ocation: PL	=Pore Lining, M=Matrix.	
vdric Soil I	idicators:	ouon, run ru	added many no maked cand or	In	dicators for Pr	oblematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy Redox (S5)	_	_ Stratified Lay	ers (A5)	
Histic Epi	ipedon (A2)		Dark Surface (S7)		_ Sandy Mucky	/ Mineral (S1)	
Black His	tic (A3)	6	Loamy Gleyed Matrix (F2)		_ Red Parent N	Naterial (F21)	
_ Hydroger	n Sulfide (A4)		Depleted Matrix (F3)		_ Very Shallow	Dark Surface (TF12)	
_ Muck Pre	esence (A8)		Redox Dark Surface (F6)		_ Other (Explai	in in Remarks)	
_ Depleted	Below Dark Surface	(A11)	Depleted Dark Surface (F7)	3Indiantara	of hudroohidio u	reactation and wotland hude	alocav
_ Inick Da Sandy G	rk Surrace (A12)		Redux Depressions (F6)	musthe	nresent unless	disturbed or problematic	ology
estrictive L	aver (if observed):			induce bo	processi, amood	ulturbed er prosteritadet	
Type.				1 A 4			
Denth (inc	hee).		-	Hw	dric Soil Prese	int? Yes No	
Dobris (nio	100/						<
temarks: (	appnoxing lay with Depletion	itely inout	3-4 feet from u dank sonface,	couscer	dge - U	us or	<u>(</u> ''
temarks: ( C	appnoxing lay with Depletion	itely input	3-4 feet from u dank sonface,	couscer	-dge - U	norformi silt	<u>(</u> ''
emarks: ( C DROLOGY	appnoxing lay wit Depletion	(Explain obs	3-4 feet from u dank sonface,	couscer	dge - U	us or	( '1
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ofile Description: (Describe to the de	pth needed to docu	ment the indi	cator or col	ntim the al	bsence or indica	lors.)	
epth <u>Matrix</u>	Red	ox Features		-2 Tex	uti ma	Domarke	
nches) Color (moist) %	Color (moist)		vpe Loi		xiuie	Nethanks	
dense veg mat		-		<u>·</u>			
-20 54R 3/4 96	SYRYIG	1	< N	<u>۸</u>	No	DISTI	UCT
	54R3/1	5	C M		He	RZONS	1.4.2.2
ype: C=Concentration, D=Depletion, RM	A=Reduced Matrix, N	IS=Masked Sa	and Grains.		<sup>2</sup> Location: PL=P	ore Lining, M=I	Matrix.
ydric Soil Indicators:				Inc	dicators for Prob	lematic Hydric	: Solis":
_ Histosol (A1)	Sandy Red	ox (S5)		_	_ Stratified Layers	(A5)	
Histic Epipedon (A2)	Dark Surfac	ce (S7)		-	Sandy Mucky M	inerai (S1)	
Black Histic (A3)	Loamy Gle	yed Matrix (F2)	)		_ Red Parent Mal	enai (F21) ark Ourfeen /77	40)
_ Hydrogen Sulfide (A4)	Depleted N	latrix (F3)			_ very Snallow D	ark Sufface (1)	12)
_ Muck Presence (A8)	Redox Dar	k Suntace (F6)	70		_ Other (Explain I	n Remarks)	
_ Depieted Below Dark Surface (A11)	Depieted D	ark Surrace (F	1)	3Indicators	of hydroph tio yes	otation and wa	tland budrology
_ Thick Dark Surface (A12)	Redox Dep	ressions (F8)	- C	Indicators (	or riveropriytic veg	sturbed or prob	lematic
Sandy Gleyed Matrix (S4)				must be p	present, uniess dis	survey or prop	iciliauc.
estrictive Layer (if observed):							
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BATEA RACEWAY

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#### WETLAND DETERMINATION DATA FORM -- Hawai'i and Pacific Islands Region

Project/Site: TINIAN WETCAND DETERMINATION	_ City: Sampling Date: 12-2-14 Time: 1005
Applicant/Owner:	State/Terr/Comith.: CNM1 Island: TINCON Sampling Point:
Investigator(s): Daw WODSTER	TMK/Parcel:
Landform (hillslope, coastal plain, etc.): Level area oro	<u>plateaci</u> Local relief (concave, convex, none): <u>leve</u> Datum: Slope (%):
Soil Map Unit Name: <u>Sacpass</u> <u>Clay</u> <u>H</u> 43 Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation Soil, or Hydrology significantly di Are Vegetation, Soil, or Hydrology naturally prob SUMMARY OF FINDINGS – Attach site map showing s	NWI classification:       P ≤ M 1 A         ?? Yes X No (If no, explain in Remarks.)         isturbed? No       Are "Normal Circumstances" present? Yes X No         iematic?       No         (If needed, explain any answers in Remarks.)         sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes No       Hydric Soil Present?     Yes No       Wetland Hydrology Present?     Yes No	Is the Sampled Area within a Wetland? Yes No X

from flooded permisetum field - NOT WETLAND SOILS OR DEC.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species	
1				That Are OBL, FACW, or FAC: (A	4)
2. NONE				Total Number of Dominant Species Across All Strata:(B	3)
4				Bernand of Developed Secolog	
5				That Are OBL, FACW, or FAC: (A	VB)
		= Total Co	ver	· · · · · · · · · · · · · · · · · · ·	
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet: 	
2				OBL species x 1 =	
3 NONE				FACW species x 2 =	
4	-	-		FAC species x 3 =	
5				FACU species x 4 =	
J		- Total Co	Wer	UPL species x 5 =	
Herb Stratum (Plot size:)				Column Totals: (A)	(B)
2.				Prevalence index = B/A =	
3.				Hydrophytic Vegetation Indicators:	
4. Peunisetum P.	100	X	EACU	1 - Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain i	in
p	-			Remarks or in the delineation report)	
Woody Vine Stratum (Plot size:)	95	_= Total Co	over	<sup>1</sup> Indicators of hydric soil and wetland hydrology musbe present, unless disturbed or problematic.	st
1. MIKANIA SCUNDEN?		<u></u>		Hydrophytic	
2. (055)	14:05/0			Vegetation	
		_ = Total Co	over	Present? Yes No 🔨	
Remarks: Hydrophytic vegetat of FACU	1012 NO	ot p	nesen	t - Homogapeous stand	

US Army Corps of Engineers

BDI

BATER RACEWAY

Project/Site: TINIAN WETLAND DETERMIN	ATION City:	Sampling Date: 12-2	-14 Time: 10 45
Applicant/Owner:	State/Terr/Comith.:	COMI Island: TINIAN	Sampling Point:
Investigator(s): Dan WOOSTER		TMK/Parce	el:
Landform (hillslope, coastal plain, etc.): (eve) avea	at Plateau Local	relief (concave, convex, none):	levei
Lat: Long:		Datum:	Slope (%):
Soil Map Unit Name: Sarpan Clay # 43		NWI classification:	PEM 1A
Are climatic / hydrologic conditions on the site typical for this tir	ne of year? Yes X No	(If no, explain in Remarks.)	)
Are Vegetation, Soil, or Hydrology sign	ficantly disturbed? NO Are "N	formal Circumstances" present?	Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic? $\mathcal{P}^{\mathcal{O}}$ (If nee	ded, explain any answers in Rer	narks.)
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point lo	cations, transects, impo	rtant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>No X</u> Yes <u>No X</u> Yes <u>X</u> No	- Is the Sampled Area within a Wetland? Yes <u>No </u>
Remarks: Araa sample SPP. Hydrology mee	to it patch. to chitema - s	of PENNOSatur VILLED - NO FIRCE OF OBL

#### VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>.50 / 50 <sup>1</sup></u> ) 1	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
2 3NO TREES	, <u></u>			Total Number of Dominant Species Across All Strata:	(B)
4 5		- Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
Sapling/Shrub Stratum (Plot size:) 1				Prevalence Index worksheet: Total % Cover of: Multiply by:	
2			-0	OBL species x 1 =	
3. <u>Cassia alata</u> 4			<u>+HC 0</u>	FAC species x 2 = FAC species x 3 =	
Herb Stratum (Plot size:)		= Total C	over	UPL species         x 5 =           Column Totals:        (A)	(B)
2. PENNISetum (dead)	100	100	FACU	Prevalence Index = B/A =	
3 4 <i>cassia_alacta</i> 5 6 7 8.		yes		Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic Vegetation        2 - Dominance Test is >50%        3 - Prevalence Index is ≤3.0 <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain Remarks or in the delineation report)	in in
Woody Vine Stratum (Plot size:)		_ = Total Co	over	<sup>1</sup> Indicators of hydric soil and wetland hydrology r be present, unless disturbed or problematic.	nust
12		_ = Total Co	over	Hydrophytic Vegetation Present? Yes No X	
Remarks: avea 15 on day g field - Pensnoisetum is	deab	e Up from	slope slope gloo	Present? Yes No X 2 gnom floodet Panniset 2 ing	°0 14L

The Dec	white (Deperties to	the death	nooded to decur	nont the indi	inator (	r confirm	the absence	of indicators.)
othe Des	cription: (Describe to	me nepui	Dode	v Ecoturos	acator s	A COMMIN	the assence	
epth nches)	Color (moist)	%	Color (moist)	% 1	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
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ype: C=0	Concentration, D=Deple	tion, RM=F	Reduced Matrix, M	S=Masked S	and Gr	ains.	<sup>2</sup> Locat	tion: PL=Pore Lining, M=Matrix,
ydric Soi	Indicators:						Indicator	s for Problematic Hydric Solls":
_ Histos	ol (A1)		Sandy Redo	x (S5)			Strati	ified Layers (A5)
_ Histic I	Epipedon (A2)		Dark Surfac	e (S7)			Sand	y Mucky Mineral (S1)
_ Black I	Histic (A3)		Loamy Gley	ed Matrix (F2	2)		- Red I	Shallow Dark Surface (TE12)
_ Hydrog	jen Sulfide (A4)		Depleted Wa	Surface (F3)			Very	r (Evolution in Remarks)
_ IVIUCK I	resence (Ao)	(411)	Neuton Dark	ark Surface (F	F7)			
_ Deplet	ark Surface (A12)		Bedox Depr	essions (F8)	.,	<sup>3</sup> Indic	ators of hydro	ophytic vegetation and wetland hydrology
Sandy	Gleved Matrix (S4)					mu	ist be present	, unless disturbed or problematic.
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testrictive Type: _ Depth ( temarks:  S S CDROLO Vetland F Crimary In Satura Sedin Drift E Algal Iron E Inund Wates Field Obs	Exper (if observed): Inches): Est Rit Qui Likely that Likely that GY Indicators: dicators (minimum of or Se Water (A1) Nater Table (A2) ation (A3) Marks (B1) Marks (B1) Marks (B1) Marks (B3) Mat or Crust (B4) Deposits (B5) ation Visible on Aerial II -Stained Leaves (B9) ervations:	Claly thy d table (Explain of ne required magery (B7	Servations in Ren check all that app Aquatic F Aquatic F Aquat	e to 1 5 occurs darks, if need oly) Fauna (B13) ests (B17) in Sulfide Odd Rhizosphere e of Reduced ron Reduction ck Surface (C Crab Burrows merican Sam xplain in Rem	led.) or (C1) es on Li t Iron (C no in Tille C7) s (C10) noa) marks)	مر ای آ م له ر آ (Co ای طر ving Roots (4) ed Soils (0) (Guam, Ch	Hydric So (-151 N) A (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-2000) (-200)	Adam Ag Survey-IT Slope on deepan adam Indicators (minimum of two required urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) ry-Season Water Table (C2) alt Deposits (C5) tunted or Stressed Plants (D1) ieomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5)
testrictive     Type: _     Depth (     temarks:         To         ts         ts         ts	Exper (if observed): Inches): Est Rit Qui Likely that Likely that GY Indicators: dicators (minimum of or water (A1) Nater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ation Visible on Aerial II -Stained Leaves (B9) ervations: /ater Present? Y	CKLy Thys table (Explain of ne required magery (B7 es X 1	Plooded     Auric Sort	e to 1 5 occur 5 occur 5 occur 5 occur 6 occur 6 occur 6 occur 7 occur 6 occur 7 occur 8 oc	$15^{11}$ is in z in led.) or (C1) es on Li thron (C no in Tille C7) is (C10) moa) marks)	مر ای آ م له را ا (Co ای طر ving Roots (A) ed Soils (Co (Guam, Ch	Hydric So 15151 15 0 Г 2000 10005 10005 (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3) (C3)	Adam And Sources-IT Slope on dreepen adam Indicators (minimum of two required urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) ny-Season Water Table (C2) alt Deposits (C5) tunted or Stressed Plants (D1) seomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
	Externational and a construction of a construction (A3) and a construction (A4) and a construction (B4) and a construction (B4	CKLU Thy d tail la (Explain of magery (B7 es X 1 es X 1	Pleoded     Auric Sond     control     Sonded     Sonded     Sonded     Sonded     Sonded     Sondedd     Control     Con	e to 1 5 occur 5 occur 5 occur 5 occur 5 occur 6 occur 6 occur 6 occur 7 occur 6 occur 6 occur 8 oc	led.) or (C1) es on Li t Iron (C n in Tille (C10) marks)	مر ای آ م له ا ا ا ving Roots (Guam, Ch	Hydric So Ir 151 N A Г 2000 Ir 2005 Lious 5 Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si Si _Si	Adam And Sources-IT Stope on dreepen adam Indicators (minimum of two required urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) ny-Season Water Table (C2) alt Deposits (C5) tunted or Stressed Plants (D1) seomorphic Position (D2) shallow Aquitard (D3) AC-Neutral Test (D5)
Lestrictive     Type: _     Depth (     Lemarks:     T     S     L     S     L     S     CDROLO  Vetland F Primary In     X Surfac      Sedin     Drift E     Algal     Iron E     Inund     Water      Field Obs Surface W Water Tal Saturation	Eaver (if observed): Inches): East Rit Qui Likely that Likely that GY Indicators (minimum of or Se Water (A1) Nater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ation Visible on Aerial In -Stained Leaves (B9) ervations: /ater Present? Y Present? Y	Clocky tackyla (Explain of re required magery (B7 es X 1 es X 1 es X 1	Servations in Ren check all that app Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Check all that app Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Aquatic F Oxidized Presence Recent II Thin Muu Fiddler C and A Other (E No Depth ( No Depth (	to I i occur i occu	led.) or (C1) es on Li t Iron (C n in Tille (C10) ( noa) marks)	مر ای ی م له ا خ خ رص ای طو ر خ ا wing Roots (C guam, Ch (Guam, Ch	Hydric So         V-191 No G         C 2000         C 2000         C 2000         C 2000         C 2000         Secon	bil Present? Yes No X Sources-iT Sope on dee pan dary Indicators (minimum of two required urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) ry-Season Water Table (C2) alt Deposits (C5) tunted or Stressed Plants (D1) secomorphic Position (D2) challow Aquitard (D3) AC-Neutral Test (D5) ogy Present? Yes X No

Remarks: water TABIE is shallow - test pit quickly lilled with water

RNI

## BDI

#### WETLAND DETERMINATION DATA FORM -- Hawai'i and Pacific Islands Region

Project/Site: TINIAN WETLAND DETERM	W WO AT LOOGITY:	Sampling Date: 12-2	2-14 Time: 1100
Applicant/Owner:	State/Terr/Comlth.: CI	JULI Island: TINIAL	Sampling Point:
Investigator(s): Daw WOOSTTR		TMK/Parc	cel:
Landform (hillslope, coastal plain, etc.): Level anec	a at Plateau Local re	lief (concave, convex, none):	level
Lat: Long:		Datum:	Slope (%):
Soil Map Unit Name: Saupan class H	- 43	NWI classification:	PEMIA
Are climatic / hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrology si Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS – Attach site map s	time of year? Yes <u>×</u> No <u></u> gnificantly disturbed? ゆつ Are "Nor aturally problematic? いつ (If neede showing sampling point loca	(If no, explain in Remarks rmal Circumstances" present ed, explain any answers in Re ations, transects, imp	s.) ? Yes <u>X</u> No emarks.) ortant features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	Is the Sampled Ar within a Wetland?	ea Yes M	No_X
Remarks: Level and with deale	PENNISETUM - UCG C	initenia is no	τ

MET

VEGETATION - Use scientific names of plants.

Trop Stratum (Blot cize, STO XEO)	Absolute	Dominant Indicate	Dominance Test worksheet:
1.	76 GOVEL	_speciesr_status	Number of Dominant Species That Are OBL_EACW or EAC: (A)
2.			
3.			Total Number of Dominant Species Across All Strata: (B)
4.			
5.			Percent of Dominant Species
		= Total Cover	Inat Ale OBL, FACW, of FAC (A/B)
Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet: Total % Cover of: Multiply by:
2			OBI species y 1 -
2			EACW species y2 -
4		, <del></del>	FAC species v3 -
4			FACU species V4 -
5		- Total Court	
Herb Stratum (Plot size:)			Column Totals: (A) (B)
2. PENNUISETUM	100	VES FACI	U Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators:
4			1 - Rapid Test for Hydrophytic Vegetation
5			2 - Dominance Test is >50%
6			3 - Prevalence Index is ≤3.0 <sup>1</sup>
7			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain in Remarks or in the delineation report)
ō		= Total Cover	
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.
1			Hydrophytic
			- Vagetation
2			Vegetation

US Army Corps of Engineers

offile Description: (Describe to the depth needed to document the Indicator or configential and the indicator of the	firm the absence of Indicators.)  Texture Remarks Silty Clay Clay Clay Clay Clay Clay Clan
Matrix       Redox Features         aches)       Color (moist)       %       Type1       Loc2 $p-4$ $SYR 2 \cdot S/I$ $\#p0$ $\Im \cdot S/YR 2/I$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S/YR$ $\Re D$ $\mathcal{M}$ $(-16$ $\Pi \cdot S YR 5/6$ $\pi \cdot S$ $\Pi \cdot S/YR$ $\mathcal{M}$ $(-16)$ $\Pi \cdot S YR 5/6$ $\pi \cdot S$ $\Pi \cdot S/YR$ $\mathcal{M}$ $(-16)$ $\Pi \cdot S YR 5/6$ $\pi \cdot S \cdot S/YR$ $\mathcal{M}$ $\Pi \cdot S/YR$ $(-16)$ $\Pi \cdot S YR 5/6$ $\pi \cdot S \cdot S/YR$ $\Pi \cdot S \cdot S/YR$ $\Pi \cdot S \cdot S/YR$ $(YR + S \cdot S)$ $\Pi \cdot S \cdot S/YR$ $YR + S \cdot S/YR$ $\Pi \cdot S$	Texture     Remarks       Silty
Increasing       Color (moist) $\frac{1}{2}$ Color (moist) $\frac{1}{2}$ Color (moist) $\frac{1}{2}$	Itexture     Remarks       Gilty     Gilary       Silty     Gilary       2 lary     Gilary       2 Location: PL=Pore Lining, M=Matrix.
C = -1       SYR_2.571       Image: C = Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         Indicators:	<u>Silty</u> <u>Silty</u> <u>Silty</u> <u>Clay</u> <u>Clay</u> <u>2location: PL=Pore Lining, M=Matrix.</u>
Image: Head of the system o	Clay <u>sitty</u> <u>clay</u> <u>clay</u> <u>clay</u> <u>clay</u> <u>clay</u> <u>clay</u> <u>clay</u> <u>clay</u>
Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure       Image: History of the synchronic structure         Image:	<u>sitty</u> <u>cianj</u> <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         Iydric Soil Indicators:	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         ydric Soil Indicators:	2Location: PL=Pore Lining, M=Matrix.
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         ydric Soil Indicators:	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         lydric Soil Indicators:	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         lydric Soil Indicators:	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.         Lydric Soil Indicators:	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Indicators:	Location. PL-Pore Linking, W-Matrix.
	Indicators for Problematic Hydric Soils":
Histoci (41)     Loamy Flock (65)     Loamy Flock (65)     Loamy Flock (65)     Loamy Gleyed Matrix (F2)     Hudragen Stuffac (44)     Denieted Matrix (F2)	Stratified Lavers (A5)
Black Histic (A3) Loamy Gleyed Matrix (F2)	Sandy Mucky Mineral (S1)
Livitagen Sulfide (A4)	Red Parent Material (F21)
	Very Shallow Dark Surface (TF12)
Muck Presence (A8) Redox Dark Surface (F6)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8) <sup>3</sup> In	ndicators of hydrophytic vegetation and wetland hydrology
Sandy Gleyed Matrix (S4)	must be present, unless disturbed or problematic.
lestrictive Layer (if observed):	
Туре:	~
Depth (inches):	Hydric Soil Present? Yes No
(DROLOGY	
Netland Budratamy Indiantemy (Evalein phonystians in Domarka (Spooded )	
Advantant Hydrology Indicators: (Explain observations in Remarks, in needed.)	Consudant Indications (minimum of hus required)
Primary indicators (minimum of one required; check all (nat apply)	Secondary indicators (minimum or two required)
Surface Water (A1) Aquatic Fauna (B13)	Surface Soil Cracks (B6)
X High Water Table (A2) Tilapia Nests (B17)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
X Water Marks (B1) Oxidized Rhizospheres on Living Ro	bots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Salt Deposits (C5)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils	s (C6)X Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
_ Iron Deposits (B5) Fiddler Crab Burrows (C10) (Guam,	CNMI, Shallow Aquitard (D3)
inundation Visible on Aerial Imagery (B7) and American Samoa)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Other (Explain in Remarks)	
Field Observations:	*
Surface Water Present? Yes No Depth (inches):	
Nater Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes X No
includes capillary fringe)	and if any lighter
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ns), if available:
Romarke:	
shallow watch table, vegetation (	wareates plooding
	7

BATER #1

Project/Site: TINIAN WETLAND DETERILI	いんていの City: Sampling Date: 12-1-14 Time: 1230
Applicant/Owner:	State/Terr/ComIth.: COMI Island: TINIAN Sampling Point: B!
Investigator(s): Daw WOOSTER	TMK/Parcel:
Landform (hillslope, coastal plain, etc.): plateau ad	jace st tohillside Local relief (concave, convex, none): Level
Lat: Long:	Datum: Slope (%):
Soil Map Unit Name: Saupan chay # 43	NWI classification: PEMIC
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X. No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed? A Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic? $ { m N} $ (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	Is the Sampled Area

Hydrophylic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No X No Yes X No X N	Is the Sampled Area within a Wetland?	Yes	NO X SEE SOTE	
Remarks: anca sampled open water beyon	d is at edge of poo	oledanea - flat eg offshoue in flo	cavea al	long should be	

VEGETATION - Use scientific names of plants.

Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test works Number of Dominant Spe That Are OBL, FACW, or	heet: ecies FAC:	(A)
		=	Total Number of Domina Species Across All Strata	nt a:	(B)
	- Total Ca		Percent of Dominant Spe That Are OBL, FACW, or	ecies FAC:	(A/B)
		VEI	Prevalence Index work	sheet:	
			Total % Cover of:	Multiply I	by:
			OBL species	x 1 =	
			FACW species	x 2 =	
-		1.1.1	FAC species	x 3 =	
			FACU species	x 4 =	
	- Total C	over	UPL species	x 5 =	
10000		5001	Column Totals:	(A)	(B)
					(4)
			Prevalence Index	= B/A =	
80		FACU	Hydrophytic Vegetatio	n indicators:	
			Aapid Test for H	ydrophytic Vegetat	tion
			2 - Dominance Test	is >50%	
			3 - Prevalence Inde	x is ≤3.0 <sup>1</sup>	
			Problematic Hydrop	hytic Vegetation <sup>1</sup> (	Explain in
			Remarks or in the	delineation report	)
-	Tatal C				and a star
	_= 10tai Ct	Jvei	'Indicators of hydric soil	and wetland hydro	ology must
20		FACU	be present, unless distu	rbed of problemati	L.
			Hydrophytic		
-	- Total C		Vegetation	No X	
	_= 10(21 C	JVCI	Flesent: Tes		
	<u>% Cover</u>	% Cover         Species?	% Cover         Species?         Status	% Cover       Species?       Status	% Cover       Species?       Status

Sampling Point: B1 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** % Type<sup>1</sup> Loc<sup>2</sup> Texture Color (moist) Remarks Color (moist) (inches) 215 YR/ 5/8 20 C M Silty day NO homizon 0-16 54R302 80 2.51/R 3/1 <11/2 c m but concentrations Increase w/ depth <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils3: Hydric Soil Indicators: Histosol (A1) Sandy Redox (S5) Stratified Layers (A5) Histic Epipedon (A2) Dark Surface (S7) Sandy Mucky Mineral (S1) Black Histic (A3) Loamy Gleyed Matrix (F2) Red Parent Material (F21) \_ Hydrogen Sulfide (A4) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) X Redox Dark Surface (F6) Other (Explain in Remarks) Muck Presence (A8) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) \_ Thick Dark Surface (A12) Redox Depressions (F8) <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology Sandy Gleyed Matrix (S4) must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Hydric Soil Present? Yes X No Depth (inches): narks: Test lit at adge of openwater - hydric soil w/ gray and red conceptuations - indications present near surface " not much of Remarks: a dank sunface HYDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if needed.) Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) \_\_\_\_ Aquatic Fauna (B13) X Surface Water (A1) \_\_\_\_ Surface Soil Cracks (B6) \_\_\_\_ High Water Table (A2) \_\_\_\_ Sparsely Vegetated Concave Surface (B8) \_\_\_\_ Tilapia Nests (B17) \_\_\_\_ Hydrogen Sulfide Odor (C1) \_\_\_ Drainage Patterns (B10) Saturation (A3) X Water Marks (B1) \_\_\_ Oxidized Rhizospheres on Living Roots (C3) \_\_\_ Dry-Season Water Table (C2) \_\_\_\_ Presence of Reduced Iron (C4) Sediment Deposits (B2) Salt Deposits (C5) K Stunted or Stressed Plants (D1) \_\_\_ Drift Deposits (B3) \_\_\_\_ Recent Iron Reduction in Tilled Soils (C6) \_\_\_\_ Thin Muck Surface (C7) X Geomorphic Position (D2) \_\_\_\_ Algal Mat or Crust (B4) \_\_\_\_ Iron Deposits (B5) \_\_\_\_ Shallow Aquitard (D3) Fiddler Crab Burrows (C10) (Guam, CNMI, \_\_\_\_ Inundation Visible on Aerial Imagery (B7) and American Samoa) \_\_\_\_ FAC-Neutral Test (D5) \_\_\_ Water-Stained Leaves (B9) \_\_\_ Other (Explain in Remarks) Field Observations: Yes X No Depth (inches): Surface Water Present? Water Table Present? Yes \_\_\_\_ No \_\_\_\_ Depth (inches): Yes \_\_\_\_\_ No \_\_\_\_ Depth (inches): Wetland Hydrology Present? Yes X Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: waten mannes, surface waten, stressed plants Remarks:



Project/Site: TINIAN IDETIAND DETERMINATION	City:	Sampling Date: 12-1-	14 Time: 1252
Applicant/Owner:	State/Terr/Comith.: CP141 Island: TINIGN Sampling		
Investigator(s): Day Woosten		TMK/Parce	əl:
Landform (hillslope, coastal plain, etc.): Slavated Plateau	Local relie	f (concave, convex, none):	NONE
Lat: Long:		Datum:	Slope (%):
Soil Map Unit Name: Sarpap Clay #43		NWI classification:	PEMIC
Are Vegetation, Soil, or Hydrology significantly di         Are Vegetation, Soil, or Hydrology naturally probl         SUMMARY OF FINDINGS – Attach site map showing s         Hydrophytic Vegetation Present?       YesX No         Hydric Soil Present?       YesX No         Wetland Hydrology Present?       YesX No	isturbed? الن Are "Norm lematic? الن (If needed, sampling point locat Is the Sampled Area within a Wetland?	al Circumstances" present? explain any answers in Rer ions, transects, impo	Yes <u>X</u> No narks.) rtant features, etc. enank
Remarks: Pont of Plot is likely wet flooded anea where Hydnophitic veg	land -could no is present	o test soils a	t
VEGETATION – Use scientific names of plants.			
Tree Stratum     (Plot size:	Dominant Indicator Doi Species? Status Nur	ninance Test worksheet: nber of Dominant Species	. (A)

1	<u>10 COVE</u>		Number of Dominant Spe	cies .	
2 NO TRESS			That Are OBL, FACW, OF	FAC: (A	4)
2			Total Number of Dominar	t	
۵			Species Across All Strata	(B	3)
4			Percent of Dominant Spe	cies	
5		- <u> </u>	That Are OBL, FACW, or	FAC: (A	VB)
Sapling/Shrub Stratum (Plot size: )		_ = 1 otal Cover	Prevalence index works	heet:	
1.			Total % Cover of:	Multiply by:	
2. Cassia alata	05	FACU	OBL species	x1=	
3.			FACW species	x 2 =	
4. 30% prepipaten		1	FAC species	x 3 =	
5			FACIL species		
		- Total Covor		X5	
Herb Stratum (Plot size:)			Column Totale:	(A)	(D)
1.				(A)(	(B)
2.			Prevalence Index =	B/A =	
3. Sedac in water	15	FACW	Hydrophytic Vegetation	Indicators:	
4.			🗶 1 - Rapid Test for Hy	drophytic Vegetation	
5.	-		2 - Dominance Test i	s >50%	
6			3 - Prevalence Index	is ≤3.0 <sup>1</sup>	
7			Problematic Hydroph	vtic Vegetation <sup>1</sup> (Explain in	in
8			Remarks or in the	felineation report)	
0		- Total Cautor			
Woody Vine Stratum (Plot size:)	5		Indicators of hydric soil a	nd wetland hydrology mus	st
1. TOOMORA is watch	50	061	be present, unless distant	bed of problemade.	
2. floating			Hydrophytic		
· · · · · ·		= Total Cover	Present? Ves	XNO	
MIRANIA Demarks:			1100011. 100		
This nist is 30th	% One	~ water wi	Th OBL + FAC	in - in here	
test ort dury itis FACI	1 MILA	WIG FACU -	off show thou	e are floating	6

US Army Corps of Engineers

Jeptin       Ci         Inches)       Ci         Inches)       Ci         0-2       2.1         0-2       2.1         2-20       2.1         Inches       2.1         2-20       2.1         Inches       1.1         Inches       1.1      <	Matrix $\frac{1}{2} \sqrt{\frac{2}{3}/2}$ $\frac{5\sqrt{2}-3/2}{2}$ ration, D=Depl tors: n (A2) 3) ide (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (if observed):	<u>%</u> <u>80</u> <u>70</u> etion, RM	Reduced Matrix, M Sandy Redo Dark Surface Loamy Gley Depleted Matrix Redox Dark Redox Dark Depleted Dark Redox Depr	x Features <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u> <u>20</u>	Type <sup>1</sup> C C I Sand Gr	Loc <sup>2</sup> M M M ains.	Texture       Remarks         Sulty clay
0-2       2.2         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         220       2.4         ydit       Soil Indica	$\frac{5 \sqrt{P_3/2}}{5 \sqrt{P_3/2}}$ $\frac{5 \sqrt{P_3/2}}{2}$	<u>20</u> 70 etion, RM	2.5 YR Y/8 2.5 YR Y/8 2.5 YR 3/1 I=Reduced Matrix, M Sandy Redo Dark Surface Depleted Matrix Depleted Dark Depleted Dark Depleted Dark Redox Depr	20 20 ≤ 10 ≤ 10 S=Masked x (S5) ed Matrix ( atrix (F3) Surface (F	   I Sand Gr	M M M ains.	<u>Siltyclay</u> <u>Siltyclay</u> <u>Siltyclay</u> <u>alay</u> <u><sup>2</sup>Location: PL=Pore Lining, M=Matrix.</u> Indicators for Problematic Hydric Soils <sup>3</sup> : Stratified Layers (A5)
<u>ype: C=Concent</u> <u>ydric Soil Indica</u> <u>Histosol (A1)</u> <u>Histic Epipedon</u> <u>Black Histic (A2)</u> <u>Hydrogen Sulfi</u> <u>Muck Presence</u> <u>Depleted Belov</u> <u>Thick Dark Sur</u> <u>Sandy Gleyed</u> <u>estrictive Layer</u> <u>Type:</u> <u>Depth (inches):</u> <u>emarks:</u>	ration, D=Dep tors: n (A2) 3) de (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (if observed):	<u>70</u> etion, RN	I=Reduced Matrix, M Sandy Redo Dark Surfac Loarny Gley Depleted Ma Redox Dark Redox Dark Depleted Da Redox Depr	<u>≤</u> <u>≤</u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u>	Sand Gr	M M ains.	Silty       Silty       alay <sup>2</sup> Location: PL=Pore Lining, M=Matrix.       Indicators for Problematic Hydric Soils <sup>3</sup> :
2 - 20 2. ype: C=Concent ydric Soil Indica Histosol (A1) Histic Epipedon Black Histic (A2) Hydrogen Sulfi Muck Presence Depleted Below Thick Dark Sur Sandy Gleyed estrictive Layer of Type: Depth (inches): emarks:	<u>ration, D=Depl</u> tors: n (A2) 3) ide (A4) e (A8) w Dark Surface frace (A12) Matrix (S4) (if observed):	<u>70</u> etion, RM	I=Reduced Matrix, M Sandy Redo Dark Surface Loarny Gley Depleted Ma Redox Dark Depleted Dark Redox Dark Depleted Dark Depleted Dark Depleted Dark	3 0 ≤ 0 S=Masked x (S5) e (S7) ed Matrix ( thirtix (F3) Surface (F	Sand Gr	_M	2Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> : 
<u>ype: C=Concent</u> ydric Soil Indica Histosol (A1) Histic Epipedo Black Histic (A Hydrogen Sulfi Muck Presence Depleted Belov Thick Dark Sur Sandy Gleyed estrictive Layer ( Type: Depth (inches): emarks:	ration, D=Depl tors: n (A2) 3) ide (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (If observed):	  etion, RM	I=Reduced Matrix, M Sandy Redo Dark Surfac Loamy Gley Depleted Ma Redox Dark Redox Dark Redox Dark Depleted Da Redox Depr	<u>30</u> ≤ <u>10</u> <u>S=Masked</u> × (S5) e (S7) ed Matrix ( atrix (F3) Surface (F	  I Sand Gra	 	<u>2Location: PL=Pore Lining, M=Matrix.</u> Indicators for Problematic Hydric Soils <sup>3</sup> : Stratified Layers (A5)
ype: C=Concent ydric Soil Indica _ Histosol (A1) _ Histic Epipedol _ Black Histic (A _ Hydrogen Sulfi _ Muck Presence _ Depleted Belov _ Thick Dark Sur _ Sandy Gleyed estrictive Layer ( Type: Depth (inches): emarks:	ration, D=Depl tors: n (A2) 3) ide (A4) e (A8) w Dark Surface frace (A12) Matrix (S4) (if observed):	etion, RN	I=Reduced Matrix, M Sandy Redo Dark Surfac Loarny Gley Depleted Ma Redox Dark Depleted Da Redox Depr	< 0 <li>S=Masked         x (S5)     </li> <li>a (S7)     <li>a (S7)</li> <li>a (Matrix ( atrix (F3))</li> <li>Surface (F3)</li> </li>	Sand Gr	M	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> : Stratified Layers (A5)
ype: C=Concent ydric Soil Indica Histosol (A1) Histic Epipedo Black Histic (A Hydrogen Sulfi Muck Presence Depleted Below Thick Dark Sur Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	ration, D=Depl tors: a) de (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (if observed):	etion, RM	I=Reduced Matrix, M Sandy Redo Dark Surfac Loarny Gley Depleted Ma Redox Dark Depleted Da Redox Depr	S=Masked x (S5) e (S7) ed Matrix ( atrix (F3) Surface (F	I Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> : Stratified Layers (A5)
ydric Soll Indica Histosol (A1) Histic Epipedou Black Histic (A Hydrogen Sulfi Muck Presence Depleted Belov Thick Dark Sur Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	tors: n (A2) 3) ide (A4) e (A8) w Dark Surfaca frace (A12) Matrix (S4) (if observed):	ə (A11)	Sandy Redo Dark Surfac Loarny Gley Depleted Ma Redox Dark Depleted Da Redox Depr	x (S5) e (S7) ed Matrix ( atrix (F3) Surface (F	F2)		Indicators for Problematic Hydric Soils <sup>3</sup> : Stratified Layers (A5)
<ul> <li>Histosol (A1)</li> <li>Histic Epipedo</li> <li>Black Histic (A</li> <li>Hydrogen Sulfi</li> <li>Muck Presence</li> <li>Depleted Belon</li> <li>Thick Dark Sur</li> <li>Sandy Gleyed</li> <li>estrictive Layer</li> <li>Type:</li> <li>Depth (inches):</li> <li>emarks:</li> </ul>	n (A2) 3) Ide (A4) e (A8) w Dark Surface frace (A12) Matrix (S4) (if observed):	e (A11)	Sandy Redo Dark Surface Loarny Gley Depleted Ma Redox Dark Redox Depr	x (S5) e (S7) ed Matrix ( atrix (F3) Surface (F	F2)		Stratified Layers (A5)
<ul> <li>Histic Epipedo</li> <li>Black Histic (A</li> <li>Hydrogen Sulfi</li> <li>Muck Presence</li> <li>Depleted Below</li> <li>Thick Dark Sui</li> <li>Sandy Gleyed</li> <li>estrictive Layer</li> <li>Type:</li> <li>Depth (inches):</li> </ul>	n (A2) 3) de (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (if observed):	ə (A11)	Dark Surface	e (S7) ed Matrix ( atrix (F3) Surface (F	F2)		
Black Histic (A Hydrogen Sulf Muck Presence Depleted Belor Thick Dark Sul Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	3) ide (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (If observed):	e (A11)	Loamy Gley Depleted Ma Redox Dark Depleted Da Redox Depr	ed Matrix ( atrix (F3) Surface (F	F2)		Sandy Mucky Mineral (S1)
<ul> <li>Hydrogen Sulf</li> <li>Muck Presenc</li> <li>Depleted Belor</li> <li>Thick Dark Sur</li> <li>Sandy Gleyed</li> <li>estrictive Layer</li> <li>Type:</li> <li>Depth (inches):</li> <li>emarks:</li> </ul>	ide (A4) e (A8) w Dark Surface face (A12) Matrix (S4) (if observed):	e (A11)	Depleted Ma     Redox Dark     Depleted Da     Redox Depr	atrix (F3) Surface (F			Red Parent Material (F21)
Muck Presenc Depleted Belo Thick Dark Su Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	e (A8) w Dark Surface face (A12) Matrix (S4) (If observed):	e (A11)	Depleted Dark	Surface (F			Very Shallow Dark Surface (TF12)
Depleted Belo Thick Dark Sui Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	w Dark Surface face (A12) Matrix (S4) (If observed):	e (A11)	Redox Depr	101 P 1. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6)		Other (Explain in Remarks)
Sandy Gleyed estrictive Layer Type: Depth (inches): emarks:	Matrix (S4) (if observed):		Redox Depr	rk Sunace	(F7)	31	
Type: Depth (inches): emarks:	(if observed):			essions (Fi	6)	Indic	cators of hydrophytic vegetation and wetland hydrolog
Type: Depth (inches): emarks:			0			mu	is be present, unless disturbed of problematic.
Depth (inches): emarks:							
emarks:							Hudda Ball Branning Mar X
etland Hydrolog	y Indicators:	(Explain	observations in Rem	arks, if nee	eded.)		
rimary Indicators	(minimum of o	ne require	ed; check all that app	iv)			Secondary Indicators (minimum of two require
Surface Water	(A1)		Aquatic F	auna (B13)	)		Surface Soil Cracks (B6)
_ High Water Ta	ble (A2)		Tilapia Ne	ests (B17)			L Sparsely Vegetated Concave Surface (B8
Saturation (A3)	)		Hydrogen	Sulfide Od	dor (C1)		Drainage Patterns (B10)
L-Water Marks (I	B1)		Oxidized	Rhizosphe	res on Liv	ing Roots	(C3) Dry-Season Water Table (C2)
_ Sediment Dep	osits (B2)		Presence	of Reduce	d Iron (C4	4)	Salt Deposits (C5)
Drift Deposits	(B3)		Recent In	on Reducti	on in Tille	d Soils (Cf	<ol> <li>Stunted or Stressed Plants (D1)</li> </ol>
_ Algal Mat or Ci	rust (B4)		Thin Muc	c Surface (	C7)		Geomorphic Position (D2)
_ Iron Deposits (	B5)		Fiddler Cr	ab Burrow	s (C10) (0	Suam, CN	IMI, Shallow Aquitard (D3)
Inundation Visi	ible on Aerial I	magery (I	37) and An	nerican Sai	moa)		FAC-Neutral Test (D5)
Vvater-Stained	Leaves (B9)		Other (Ex	plain in Re	marks)	_	6-
ield Observation	S:	~			21		
urface Water Pres	sent? Yo		No Depth (ir	iches): 6-	-5		
later Table Prese	nt? Y	as	No X Depth (ir	iches):			
aturation Present ncludes capillary 1	? Yo fringe)	28 ×	No Depth (ir	iches):		Weti	iand Hydrology Present? Yes No
escribe Recorded	Data (stream	gauge, m	ionitoring well, aerial	photos, pri	evious ins	pections),	, if available:
emarks:	e is a	t ei	are of or	enwa	ter c	ul sti	insted veg and drugt

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BD2

Project/Site: TINIAN WETLAND	DETERMINATION	_ City:	Sampling Date:12-1-	14 Time: 1545
Applicant/Owner:		State/Terr/Comith.	Island: TINIAN	Sampling Point: 183
Investigator(s): DAN WOOSTER			TMK/Parc	el:
Landform (hillslope, coastal plain, etc.):	Plateau	Local relief (co	oncave, convex, none):	flat w/slight slope
Lat:	Long:	Da	tum:	Slope (%): 3 %
Soil Map Unit Name: Sauparo cla	LY FEY3		NWI classification:	PEMIL.
Are climatic / hydrologic conditions on the s	site typical for this time of year	? Yes X No (If	no, explain in Remarks	)
Are Vegetation, Soil, or Hyd	drology significantly d	isturbed? NO Are "Normal C	ircumstances" present?	Yes X No
Are Vegetation, Soil, or Hyd	drology naturally prob	lematic? NO (If needed, exp	lain any answers in Re	marks.)
SUMMARY OF FINDINGS - Atta	ch site map showing s	sampling point location	s, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present?	Yes No	is the Sampled Area		
Hydric Soil Present?	Yes No	within a Wetland?	Yes N	• X
wedand right ology Plesent?	TesNO	the second se		

Remarks:	500 .00.		4	01 2.44	1	- The tal	Cuer
WENI	100 yan	opslope	to avoid	f10001103	- our groc	bo water	2NOLOG DICHED
at No	can son (ace	soil ap	opeans hy	guic pro	tory abl	e to sample	- scolace

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 50 × 50')	Absolute % Cover	Dominan Species	t Indicator <u>? Status</u>	Dominance Test worksheet: Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
3			•	Total Number of Dominant
				Species Across All Strata: (B)
4	-			Percent of Dominant Species
o		Tatal		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		= 10(a) C	over	Prevalence Index worksheet:
1			1	Total % Cover of: Multiply by:
2				OBL species x 1 =
3	-			FACW species x 2 =
4				FAC species x 3 =
5,				FACU species x 4 =
		= Total C	over	UPL species x 5 =
1.		*		Column Totals: (A) (B)
2. Pennesetur	50	X	FACU	Prevalence Index = B/A =
3				Hydrophytic Vegetation Indicators:
4,				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7	_			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain in
8				Remarks or in the delineation report)
Woody Vine Stratum (Plot size, SOXSO)		= Total C	over	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 Mikanin	CD	v	ERCIN	be present, unless disturbed or problematic.
2			VIICO	Hydrophytic
	100	= Total C	over	Vegetation Present? Yes No X
Remarks: Nean hole in plooded	anor	Heave		land tand all a rate of
(FACU) and I pomoea aquetica	(OBC)	itis	likely	that that there is an area
which meets intering at Plooded.	anea -	Sunen	le site	S FACU
		P		

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Batea #3

DIL						Samp	ling Point:	83
rofile Description: (Describe to the	depth needed to docu	ment the in	ndicator o	or confirm	the absence	of Indicato	ors.)	
Depth Matrix	Redo	ox Features						
inches) Color (moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	S
2-8 54R3/4 80	2.54r 4/8	20	C	M	Siltyclas	1_ 100	e ten to	eble
	2.5 yn 3/1	21%	-			D.110.5	SPIDT	
						1		
Elizaten					· · · · · · · · · · · · · · · · · · ·	water	table	Corporates
3-water SYR3/4 71	2.5412418	30	C	M	Sultyclay	laist	undar	leating
<u></u>	2,540 3/1	419		LA			Vice /	feriover
		=1/0	<u> </u>	M				
ype: C=Concentration, D=Depletion, vdric Soil Indicators:	KM=Reduced Matrix, M	S=Masked	Sand Gra	ains.	Locatio	n: PL=Por	e Lining, M=	=Matrix.
Histosol (A1)	Sandu Deda	W (SE)			Charles	IOF PTODIO	AG	IC JOILS ;
Histic Epipedon (A2)	Dark Surface	e (S7)			Suadu	Mucky Min	eral (C4)	
Black Histic (A3)	Loamy Glev	ed Matrix (F	-21		Oarluy	WUCKY WIN	eral (51)	
Hydrogen Sulfide (A4)	Depleted Ma	atrix (F3)	<i>L</i> )		Very S	hallow Darl	Surface (T	E12)
_ Muck Presence (A8)	K Redox Dark	Surface (F6	6)		Other (	Explain in I	Remarks)	112)
_ Depleted Below Dark Surface (A11	Depleted Da	irk Surface	(F7)				connancoy	
_ Thick Dark Surface (A12)	Redox Depr	essions (F8	3)	<sup>3</sup> Indic	ators of hydrop	hytic veget	ation and we	etland hydrology
_ Sandy Gleyed Matrix (S4)				mu	st be present, u	unless distu	rbed or prol	blematic.
estrictive Laver (if observed):								
Type: Nobe					1.1.1			?
Type: <u>Noble</u> Depth (inches): <u></u> Remarks: Water TABLE below senface; v	eucounter, ed and few	ed at	8"- Consi	- red	Hydric Soil ox fert trows	Present?	Yes X vedenst	? No
Type: <u>No De</u> Depth (inches): <u></u> lemarks: Water TABLE below senface ; h DROLOGY	eucounte R. ed and few	ED at dank	: 8" - Corr	- red ceptua	Hydric Soil ox fert trows	Present?	Yes <u>X</u> vedeist	₽ <u> </u>
Type: <u>NODE</u> Depth (inches): <u></u> temarks: WaTER TABLE below senface j v DROLOGY	encounte Ra ed and few ain observations in Rem	ED at dank	- Co N <sup>94</sup>	- red	Hydric Soil ox fert trows	Present?	Yes <u>X</u> vedeust	₽ <u> </u>
Type: <u>NODE</u> Depth (inches): <u></u> temarks: WaTER THBLE below Senface j V DROLOGY Vetland Hydrology Indicators: (Expl rimary Indicators (minimum of one rec	encounte (2) ed and few ain observations in Rem uired; check all that app	ED at dank arks, if nee	: 8 <sup>11</sup> - Серч ded.)	- red cerstua	Hydric Soil ox fert tiows Seconda	Present?	Yes X vederst	P No
Type: <u>NODE</u> Depth (inches): <u></u> temarks: WATER THBLE balow senface j v DROLOGY Vetland Hydrology Indicators: (Expl rimary Indicators (minimum of one rec X Surface Water (A1)	encournte (2) ed and few ain observations in Rem uired: check all that app Aquatic F	ED at dank arks, if nee IV) auna (B13)	З <sup>(1</sup> - Санч ded.)	- ved	Hydric Soil ox fert tions <u>Seconda</u>	Present?	Yes X vederst	P. No
Type: <u>NODE</u> Depth (inches): <u></u> emarks: W&TER TABLE below Senface j V DROLOGY Vettand Hydrology Indicators: (Expl rimary Indicators (minimum of one rec X Surface Water (A1) Y High Water Table (A2)	encourne te (2, ed and few) ain observations in Rem uired: check all that app Aquatic F Tilapia Ne	ED at dank arks, if nee hy auna (B13)	: 8 <sup>11</sup> - Саря ded.)	- ved	Hydric Soil ox fert trows <u>Seconda</u> Surf	Present?	Yes X vedenst	No I of two required) No
Type: <u>No De</u> Depth (inches): <u></u> emarks: W&TER TABLE balow serface j v DROLOGY /etiand Hydrology Indicators: (Expl rimary Indicators (minimum of one red X, Surface Water (A1) Y High Water Table (A2) Saturation (A3)	encourne te (2, ed and few) ain observations in Rem uired: check all that app Aquatic F Tilapia Ne Hydrogen	ED at dank marks, if nee (v) auna (B13) ests (B17)	ded.)	- ved	Hydric Soil ox fert tions <u>Seconda</u> Spa Spa	Present?	Yes X vedenst s (minimum acks (B6) ated Conca	No         1 of two required)         ve Surface (B8)
Type: <u>No De</u> Depth (inches): <u></u> temarks: W&TER TABLE balow semface j w DROLOGY Vetland Hydrology Indicators: (Expl trimary Indicators (minimum of one rec X Surface Water (A1) Y High Water Table (A2) _ Saturation (A3) X Water Marks (B1)	encourne te (2, ed and few ain observations in Rem uired: check all that app Aquatic F Tilapia Ne Tilapia Ne Hydrogen Oxidized	ED & ( dank arks, if nee iv) auna (B13) ests (B17) a Sulfide Od Rhizospher	ded.)	- red cepture	Hydric Soil ox fert tions <u>Seconda</u> Spa Drai	Present?	Yes X vede st s (minimum acks (B6) ated Conca ms (B10)	No No
Type: Depth (inches): emarks: W&TER TABLE balow Seveface j V DROLOGY Vetland Hydrology Indicators: (Expl rimary Indicators (minimum of one rec X Surface Water (A1) Y High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2)	encourse te (2. ed and few) ain observations in Rem <u>uired: check all that app</u> Aquatic F Tilapia Ne Tilapia Ne Hydrogen Oxidized Presence	ED at dank arks, if nee iv) auna (B13) asts (B17) a Sulfide Od Rhizospher of Reduced	ded.)	ing Roots	Hydric Soil OX fert trows <u>Seconda</u> Surf Spa Drai (C3) Drai	Present?	Yes X vedenst vedenst sedenst rs (minimum acks (B6) rated Conca rms (B10) ater Table ((	No <u>No</u> <u>Nof two required</u> ve Surface (B8)
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Type: Depth (inches): emarks: W&TER_TABLE balaw_Seveface j V DROLOGY //etiand Hydrology Indicators: (Expl rimary Indicators (minimum of one rec X Surface Water (A1) Y High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) ield Observations: urface Water Present? Yes //ater Table Present? Yes aturation Present? Yes aturation Present? Yes escribe Recorded Data (stream gauge	euscour pte (2. ed aud feus ain observations in Rem <u>uired: check all that app</u> <u>Aquatic F</u> <u>Tilapia Ne</u> <u>Aquatic F</u> <u>Oxidized I</u> <u>Presence</u> <u>Recent Ira</u> <u>Fiddler Ci</u> <u>Fiddler Ci</u> <u>Citor Fiddler Ci</u> <u>Citor Citor</u> <u>No</u> Depth (ir <u>No</u> Depth (ir <u>No</u> Depth (ir <u>No</u> Depth (ir <u>Citor Citor</u> )	ED at dank aarks, if need iv) auna (B13) asts (B17) a Sulfide Od Rhizospher of Reduced barrows nerican San plain in Rer nches): S <sup>(I)</sup> nches): S <sup>(I)</sup> nches): S <sup>(I)</sup> photos, pre	ded.) ded.) lor (C1) res on Livi d Iron (C4 on in Tilled C7) s (C10) (C noa) marks) f kom f kom f ce evious ins	ing Roots b) d Soils (Ce Suam, CNI Weth pections),	Hydric Soil OX fect trows <u>Seconda</u> <u>San</u> Srai (C3) Dry- Salt (C3) Dry- Salt Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> Stur <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u>Salt</u> <u></u>	Present?	Yes X vede, st rs (minimum acks (B6) ated Conca rns (B10) ater Table (( C5) ssed Plants osition (D2) rd (D3) est (D5) Yes	No No No No Surface (B8) C2) (D1) No X Unclass 4
Type: Depth (inches): Remarks: WATER TABLE balaa Seveface j v (DROLOGY Vetland Hydrology Indicators: (Expl rimary Indicators (minimum of one red X Surface Water (A1) Y High Water Table (A2) Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) ield Observations: Surface Water Present? YesX Vater Table Present? YesX Vater Table Present? YesX Vater Table Present? YesX Vater Table Present? YesX iaturation Present? YesX iescribe Recorded Data (stream gauge iemarks: NP Sece Data (stream gauge	eucour pte (2. ed and few ain observations in Rem <u>uired: check all that app</u> <u>Aquatic F</u> <u>Tilapia Ne</u> <u>Aquatic F</u> <u>Oxidized I</u> <u>Presence</u> <u>Recent Ira</u> <u>Presence</u> <u>Recent Ira</u> <u>Cidiler Ci</u> <u>Cidiler Cidiler Ci</u> <u>Cidiler Cidiler Cid</u>	ED at Lank arks, if near iv) auna (B13) auna (B13	ded.) ded.) lor (C1) res on Livi d Iron (C4 on in Tilled C7) s (C10) (C noa) marks) f how face	ing Roots b) t Soils (Ce Suam, CNI Weth pections), (and d	Hydric Soil OX fert trows <u>Seconda</u> <u>Surf</u> Spa Drai (C3) Dry- Salt Stur <u>Geo</u> Mil, <u>Sha</u> FAC and Hydrology if available: US (.Th	Present?	Yes X uedeust rs (minimum acks (B6) ated Conca rns (B10) ater Table (( C5) ssed Plants osition (D2) rd (D3) est (D5) Yes	No No nof two required) ve Surface (B8) C2) (D1) No X (Un face

Project/Site: TIULAN WZTLAN	DD DETERMINATION	City: Sampling Da	ate: 12-1-14 Time: 1610
Applicant/Owner:		State/Terr/Comlth.: CNHI Island: T	NUAN Sampling Point: BY
Investigator(s):	DOED WOODTER		TMK/Parcel:
Landform (hillslope, coastal plain, etc.): _	Plateau	Local relief (concave, conve	ex, none): Level
Lat:	Long:	Datum:	Slope (%); 0-1
Soil Map Unit Name: Saupan c	lay # 43	NWI classi	fication: PEMIC
Are climatic / hydrologic conditions on the	site typical for this time of year?	Yes X No (If no, explain in	Remarks.)
Are Vegetation, Soil, or H	ydrology significantly dist	urbed? NO Are "Normal Circumstances	"present? Yes X No
Are Vegetation, Soil, or H	ydrology naturally proble	matic? ND (If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Att	ach site map showing sa	mpling point locations, transect	ts. important features, etc.
Hydrophytic Vegetation Procent?	Voc No IC		
Hydric Soil Present?	Yes X No	Is the Sampled Area	- 10 A
Wetland Hydrology Present?	Yes No	within a Wetland? Yes	NoX
Remarks: Vegetation doe too FAR FROM	SDOT MEET CHITCHI FIDODED AREA	t - hydrology w/out a	aby Indicators

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>\ 66 x160</u> ) 1	Absolute <u>% Cover</u>	Dominant Species	t Indicator <u>Status</u>	Dominance Test worksh Number of Dominant Spe That Are OBL, FACW, or	eet: cies FAC:	_ (A)
2 3NO TREES 4				Total Number of Dominan Species Across All Strata:	.t	_ (B)
5		= Total Co		Percent of Dominant Spec That Are OBL, FACW, or	cies FAC:	_ (A/B)
Sapling/Shrub Stratum (Plot size:)				Prevalence Index works	heet:	
1	-			Total % Cover of:	Multiply by:	
2				OBL species	x1=	
3. 100 Shhubs				FACW species	x 2 =	
4		-	_	FAC species	x 3 =	_
5				FACU species	x 4 =	
		= Total C	over	UPL species	x 5 =	_
Herb Stratum (Plot size: <u>50950</u> )				Column Totals:	(A)	(B)
2. Pennisetury	50	X	FACU	Prevalence Index =	B/A =	
3				Hydrophytic Vegetation	Indicators:	
4				X 1 - Rapid Test for Hyd	drophytic Vegetation	
5.				2 - Dominance Test is	s >50%	
6	1			3 - Prevalence Index	ic <2 0 <sup>1</sup>	
7				Droblomatia Lludrash	15 -5.0	
8				Remarks or in the d	lelineation report)	ain in
Woody Vine Stratum (Plot size:)		= Total Co	over	<sup>1</sup> Indicators of hydric soil a	nd wetland hydrology	must
1. Mikawia	50	×	FACU	be present, unless disturb	ed or problematic.	
2				Hydrophytic		
	100	= Total Co	over	Vegetation Present? Yes_	No X	
Remarks: all FACU, NO OBL	FAC or	FAC	il.	A		

US Army Corps of Engineers

BD2 Bater #1

rofile Desc	cription: (Describ	e to the dep	oth needed to docur	nent the i	ndicator o	or confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	3		
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Remarks
)-3	104R3/2	80	51R4/4	20	C	M	-silty clay
	·						
3-15+	10783/4	70	2.5412.4/6	10	C	M	
			2.5423/1	20	C	M	
ype: C=Ce	oncentration, D=D	epletion, RM	=Reduced Matrix, Ma	S=Masked	Sand Gra	iins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Distance SOIL	(Ad)		A	(0=)			indicators for Problematic Hydric Soils':
_ HISTOSO	(A1)		Sandy Redo	x (S5)			Stratified Layers (A5)
Black Li	istic (A2)		Dark Surface	t (S/)	50)		Sandy Mucky Mineral (S1)
_ Diack Fil	an Sulfide (AA)		Loany Gleye	triv (E2)	-2)		Red Parent Material (F21)
Muck Pr	resence (A8)		V Redox Dark	Surface (E	6)		Very Shallow Dark Sunace (TF12)
Depleter	d Below Dark Surfa	ace (A11)	Depleted Da	currace (F	(E7)		Other (Explain in Remarks)
Thick Da	ark Surface (A12)	and frinty	Bedox Depre	essions (F	8)	3 Indica	stors of hydrophytic vegetation and wotland hydrology
Sandy G	Name of Materia (C.4)			soonaria (i c	-	manac	ators or injurphilytic vegeration and wettand hydrology
	sleyed Matrix (54)					mus	at be present, unless disturbed or problematic
estrictive l	Layer (if observe	i):				mus	t be present, unless disturbed or problematic.
estrictive I	Layer (if observed	i):				mus	at be present, unless disturbed or problematic.
estrictive I Type: Depth (inc	Layer (if observed ches):	i):	_			mus	t be present, unless disturbed or problematic.
estrictive I Type: Depth (in emarks:	ches):	1): . Ngame	cnitevia b	out or	boly 4	mus	Hydric Soil Present? Yes X No
estrictive I Type: Depth (ind emarks:	ches): Meets h	n): Netric	cnitenia b	out or	poly 4	mus	Hydric Soil Present? Yes X No
Depth (ind emarks: DROLOG	ches): Meets h	i): Jerre s: (Explain o	cnitenia 6	っした の arks, if nee	العام الم Ided.)	mus	Hydric Soil Present? Yes X No Acurlé Surface
Depth (independent) Depth (independent) emarks: DROLOGY /etland Hydrimary India	ches): Meets h Y drology Indicator	ו): שלאכ s: (Explain d	cnitenia k observations in Rema d; check all that appl	っした ov arks, if nee v)	صامع ۲ ded.)	mus	et be present, unless disturbed or problematic. Hydric Soil Present? Yes X No dank Sunface. Secondary Indicators (minimum of two required
Depth (independent) Depth (independent) DROLOGY /etland Hydrimary Indide Surface	Alger (if observed ches): Meets h Y drology Indicator cators (minimum o Water (A1)	ו): שלאכ s: (Explain o fone require	cnitenia k observations in Rema d; check all that appl _ Aquatic Fa	arks, if nee v) auna (B13)	العام الم ded.)	mus	Less disturbed or problematic. Hydric Soil Present? Yes X No Less Sourface. <u>Secondary Indicators (minimum of two required</u> Surface Soil Cracks (B6)
DROLOGY retrand Hydrimary India Surface High Wa	Algorial Matrix (S4) Layer (if observed ches): Meets h Y drology Indicator cators (minimum o Water (A1) ater Table (A2)	ו): שלאכ s: (Explain o f one require	cnitenia k observations in Rema d; check all that appl Aquatic Fa Tilapia Ne	arks, if nee y) auna (B13) sts (B17)	noly 4 ided.)	mus	t be present, unless disturbed or problematic.  Hydric Soil Present? Yes X No  Acur & Sunface.  Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
DROLOG /ettand Hydrimary India Surface Saturatio	Algorial Matrix (S4) Layer (if observed ches): Meets h Y drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	ו): שליאכ s: (Explain o f one require	observations in Rema d: check all that appl Aquatic Fa Tilapia Ne Hydrogen	arks, if nee y) auna (B13) sts (B17) Sulfide Od	ided.) lor (C1)	chi no	Hydric Soil Present? Yes X No Acurlé Sunface Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
estrictive I Type: Depth (ind emarks: DROLOGY /etland Hyd rimary India Surface High Wa Saturatio Water M	Algorial Matrix (S4) Layer (if observed ches): Meets h drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	ו): שליאכ s: (Explain of one require	observations in Rema d; check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F	arks, if nee y) auna (B13) sts (B17) Sulfide Oc Rhizospher	ided.) Ior (C1) res on Livi	ng Roots (	Hydric Soil Present? Yes X No Acur & Sunface Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) (C3) Dry-Season Water Table (C2)
DROLOG Constructive I Type: Depth (indentifying the second emarks: DROLOG Construction DROLOG Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Constru	Are the first term of the term of the term of the term of term	ו): שליאכ s: (Explain of one require	observations in Rema d; check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence	arks, if nee y) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce	ided.) lor (C1) res on Livi d Iron (C4	ng Roots (	Hydric Soil Present? Yes X No Acur & Sunface Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) (C3) Dry-Season Water Table (C2) Salt Deposits (C5)
DROLOG Control of the second	Are the first term of the term of the term of the term of the term of term of terms of the term of terms of ter	i): Jewc s: (Explain of the second se	observations in Rema d: check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence Recent Iro	arks, if nee v) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce n Reductio	ded.) ior (C1) res on Livi d Iron (C4	ng Roots ( ) I Soils (C6	Secondary Indicators (minimum of two required 
DROLOG <sup>1</sup> Control of the second seco	Ager (if observed         ches):         iMeets         iMeets         γ         drology Indicator         cators (minimum of         Water (A1)         ater Table (A2)         on (A3)         larks (B1)         nt Deposits (B2)         posits (B3)         at or Crust (B4)	ו): שלאוכ s: (Explain of fone require	observations in Rema d: check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence Recent Iro Thin Muck	arks, if nee y) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce n Reductio : Surface (f	ior (C1) res on Livi d Iron (C4 on in Tilleo C7)	ng Roots ( ) I Soils (C6	Secondary Indicators (minimum of two required 
DROLOG <sup>1</sup> Control Control Con	Arrow (if observed ches): iMeets h drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ו): שלאיב s: (Explain of fone require	observations in Rema d; check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence Recent Iro Thin Muck Fiddler Cra	arks, if nee y) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce n Reductio : Surface (i ab Burrows	ior (C1) res on Livi d Iron (C4 on in Tilled C7) s (C10) (G	ng Roots ( ) I Soils (C6	Hydric Soil Present? Yes X       No         Accurb: Sunface       No         Secondary Indicators (minimum of two required         Surface Soil Cracks (B6)         Drainage Patterns (B10)         C3)       Dry-Season Water Table (C2)         Salt Deposits (C5)         Stunded or Stressed Plants (D1)         Geomorphic Position (D2)         Al,         Shallow Aquitard (D3)
DROLOGY Type: Depth (ind emarks: DROLOGY Tetland Hyd fimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio	Arrive and any contraction of the served ser	ו): שליאכ s: (Explain o i one require	observations in Rema d: check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence Recent Iro Thin Muck Fiddler Cra Thin Muck	arks, if nee y) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce in Reduction Sulface (f ab Burrows erican Sar	ior (C1) res on Livi d Iron (C4 on in Tilled C7) s (C10) (G noa)	ng Roots ( ) I Soils (C6	Hydric Soil Present? Yes X       No         Accult       Sunface         Surface Soil Cracks (B6)       Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)       C3)         C3)       Dry-Season Water Table (C2)         Salt Deposits (C5)       Stunded or Stressed Plants (D1)         Geomorphic Position (D2)       Shallow Aquitard (D3)         FAC-Neutral Test (D5)
Estrictive I Type: Depth (indemarks: Emarks: Entries (indemarks) Entries (indemar	Arrive (if observed ches): (Meets h Arrive (if observed ches): (Meets h Arrive (if observed (if observed (if observed) (if obser	ו): שליאב s: (Explain o fone require l Imagery (B	observations in Rema d: check all that appl Aquatic Fa Tilapia Ne Tilapia Ne Tilapia Ne Oxidized F Presence Recent Iro Thin Muck Fiddler Cri and Am Other (Exp	arks, if nee y) auna (B13) sts (B17) Sulfide Od Rhizospher of Reduce in Reduction Surface (( ab Burrows erican Sar blain in Ref	ded.) ded.) res on Livi d Iron (C4 on in Tilleo C7) s (C10) (G noa) marks)	ng Roots ( ) I Solls (C6 Juam, ČNM	Secondary Indicators (minimum of two required 
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estrictive I Type: Depth (ini emarks: DROLOG DROLOG Vetland Hyd imary India Saturatio Water M Sedimer Drift Dep Algal Ma Sedimer Drift Dep Algal Ma Iron Dep Inundatio Water-S eld Obser unface Water fater Table	Aver (if observed ches): Meets h v drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present? Present? resent?	Il Imagery (B Yes Yes	observations in Rema d; check all that appl Aquatic Fa Tilapia Ne Tilapia Ne Tilapia Ne Oxidized F Presence Recent Iro Thin Muck Fiddler Crr Thin Muck Fiddler Crr Thin Muck Thin Muck Other (Exp Other (Exp No Depth (in No Depth (in No Depth (in	arks, if nee y) auna (B13) sts (B17) Sulfide Oc Rhizospher of Reduce in Reduction Surface (( ab Burrows erican Sar olain in Rei ches): ches): ches):	ior (C1) res on Livi d Iron (C4 on in Tillec C7) s (C10) (G noa) marks)	ng Roots ( ) I Soils (C6 Juam, CNM	Hydric Soil Present? Yes X No Acwld Sunface. Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) (C3) Dry-Season Water Table (C2) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) All, Shallow Aquitard (D3) FAC-Neutral Test (D5)
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BD2 Baten#5

Applicant/Owner:	State/Te	err/Comlth.: CNUT Island: TINIAN Sampling Point: B5
investigator(s): Dan WOO	ster	TMK/Parcel:
Landform (hillslope, coastal plain, etc.):	Plateau	Local relief (concave, convex, none): Level w/ slight slop
Lat:	Long:	Datum: Slope (%): 3 %
Soil Map Unit Name:Saupan	s clay #43	NWI classification: PEM1C
Are climatic / hydrologic conditions on t	he site typical for this time of year? Yes	X No (If no, explain in Remarks )
		(in not explain in recitions.)
Are Vegetation, Soil, or	Hydrology significantly disturbed?	No Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Are Vegetation, Soil, or	Hydrology significantly disturbed? Hydrology naturally problematic?	No       Are "Normal Circumstances" present? Yes       X       No         No       (If needed, explain any answers in Remarks.)
Are Vegetation, Soil, or Are Vegetation, Soil, or SUMMARY OF FINDINGS – A	Hydrology significantly disturbed? Hydrology naturally problematic? N	NO       Are "Normal Circumstances" present? Yes X. No         ND       (If needed, explain any answers in Remarks.)         ND       If needed, explain any answers in Remarks.)
Are Vegetation, Soil, or Are Vegetation, Soil, or SUMMARY OF FINDINGS – A	Hydrology significantly disturbed? Hydrology naturally problematic? N ttach site map showing sampling	No       Are "Normal Circumstances" present? Yes       X       No         No       (If needed, explain any answers in Remarks.)         g point locations, transects, important features, etc.
Are Vegetation, Soil, or Are Vegetation, Soil, or SUMMARY OF FINDINGS – A Hydrophytic Vegetation Present?	Hydrology significantly disturbed? Hydrology naturally problematic? N ttach site map showing sampling Yes NoX Is th	<pre>(V6 Are "Normal Circumstances" present? Yes X No (If needed, explain any answers in Remarks.) g point locations, transects, important features, etc.</pre>
Are Vegetation, Soil, or Are Vegetation, Soil, or SUMMARY OF FINDINGS – A Hydrophytic Vegetation Present? Hydric Soil Present?	Hydrology significantly disturbed? Hydrology naturally problematic? w ttach site map showing sampling Yes NoX Is th YesX No	(VO Are "Normal Circumstances" present? Yes X No         VD (If needed, explain any answers in Remarks.)         g point locations, transects, important features, etc.         re Sampled Area         in a Wetland?

VEGETATION - Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u> </u>	Absolute <u>% Cover</u>	Dominant Indicator Species? Status	Dominance Test worksheet:           Number of Dominant Species           That Are OBL, FACW, or FAC:
2. 3. NO TRECS			Total Number of Dominant Species Across All Strata:(B)
δ		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:) 1			Prevalence Index worksheet: Total % Cover of:Multiply by:
2. NO Shaves			OBL species         x 1 =           FACW species         x 2 =
45			FAC species x 3 = FACU species x 4 =
Herb Stratum (Plot size: <u>この入2の</u> )		_= Total Cover	UPL species x 5 = Column Totals: (A) (B)
2			Prevalence Index = B/A ==
3. <u>FEADIDISETION</u> 4	75%	X FACU	Hydrophytic Vegetation Indicators: _X 1 - Rapid Test for Hydrophytic Vegetation
5 6			2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup>
78			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain in Remarks or in the delineation report)
Woody Vine Stratum (Plot size; 20 x 20)	100	= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Mikawa	25	FU Total Cause	Hydrophytic Vegetation
Remarks: ALL FACU - TOD FAR	upsi	ope (lloode	Presents Yes No X

weat a line								Ca	and an De	into Bat
Profile Des	cription: (Describe	to the de	pth needed to docur	nent the ir	dicator	or confirm	the absence	of Indica	tore)	
Depth	Matrix		Redo	x Features	i anoutor	or gommin	the upseries	ormande	1013.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rer	narks
0-4	54123/4	90	SYR3/1	10	6	M	Siltycle	24		
						-		ne	d a wa	o black
4-16	54R34	60	2.5YR-418	20	4	M		001	ocent	DATIONST
	1		2.5423/1	20	6	μ			Pract	
Type: C=C	oncentration D=De	nlation PM	Reduced Matrix M		Cond Co		21			
lydric Soil	Indicators:	piedoli, Mie	-Reduced Malinx, Mi	5-iviaskeu	Sand Gr	ains.	Indicators	on: PL=F	ore Lining	g, M=Matrix. Jydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Redox	x (S5)			Stratif	ied Laver	s (A5)	iyuno oono .
Histic E	pipedon (A2)		Dark Surface	(S7)			Sandy	Mucky N	lineral (S	1)
Black H	istic (A3)		Loamy Gleye	ed Matrix (F	2)		Red P	arent Mat	terial (F21	))
Hydroge Muck Pr	an Sullide (A4)		Depleted Ma	trix (F3)	2		Very S	Shallow D	ark Surfac	ce (TF12)
Deplete	d Below Dark Surfa	ce (A11)	Penleted Dark	Sunace (Fi	) (E7)		Other	(Explain i	n Remark	(8)
Thick Di	ark Surface (A12)	00 (111)	Redox Depre	essions (F8	0	<sup>3</sup> Indica	ators of hydron	hvtic ven	etation ar	nd weilend hydr
Sandy G	Gleyed Matrix (S4)					mus	st be present,	unless dis	sturbed or	problematic.
A			1- with				T			
estrictive	Layer (if observed	):								
Type:	Layer (if observed	):								100
Restrictive Type: Depth (in Remarks:	ches): Meets Hy below da	dnic s	soil critema sonface	basel	.v) - re	edox o	Hydric Soil	l Present	? Yes. NS U	X No
Ype: Depth (in Remarks:	ches): Meets Hy below da	dnic s	soil critema sonface	benel	.v) - re	cdox o	Hydric Soil	l Present	? Yes. NS U	X No L Metros
YDROLOG	Layer (if observed ches): Meets Hy below La Y drology Indicators	dnic s nk g : (Explain	oul curtema ounface	barel	س - ۲۰۰ ded.)	edox a	Hydric Soil	I Present	7 Yes.	<u>X</u> No L Metros
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Vetland Hy Crimary India	Layer (if observed ches): Meets Hy below da Y drology Indicators cators (minimum of Water (A1)	dric s nk g : (Explain one require	observations in Rema	arks, if need	ى - ٢٠٥ ded.)	idox a	Hydric Soil	I Present	? Yes NS LL tors.(mini Cracks (B	<u>No</u> NetRs; <u>mum of two reg</u>
Vestrictive Type: Depth (in Remarks: Venarks: Vetland Hy Primary India Surface High Wa	Layer (if observed ches): Meets Hy below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2)	divić s nk g : (Explain one require	observations in Rema 	arks, if need y) auna (B13) sts (B17)	u) - re ded.)	edox a	Hydric Soil	I Present Mactio	? Yes NS (L tors (mini Cracks (B jetated Co	No Metross mum of two reg 36) oncave Surface
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Vestrictive Type: Depth (in Remarks: //DROLOG` /Vetland Hy Primary India Surface High Wa Saturatia Saturatia Water IV Sedima	Layer (if observed ches): below da y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Descein (B2)	dnic s nk g : (Explain one require	observations in Rema conface conface conface 	arks, if need y) auna (B13) sts (B17) Sulfide Od Rhizosphen	ى - ٢٠٩ ded.) or (C1) es on Liv	ing Roots (	Hydric Soil 	I Present	7 Yes NS L tors (mini Cracks (B getated Co terns (B1 Water Tat	No NetRss mum of two reg 36) oncave Surface 0) ole (C2)
Vetland Hy Primary India Control of the second Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Deri	Layer (if observed ches): Meats Hy below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	dinic s nk g : (Explain one require	observations in Rema conface observations in Rema check all that appl Aquatic Fa Tilapia Ne Hydrogen Oxidized F Presence	arks, if need w auna (B13) sts (B17) Sulfide Od Rhizosphere of Reduced	ded.) or (C1) es on Liv i Iron (C4	ing Roots (	Hydric Soil	I Present	? Yes NS LL tors (mini Cracks (El getated Co terns (B1 Water Tat (C5)	<u>X</u> No Note that the strength of two requires the surface of two requires the surface of the su
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Type: Depth (in Remarks: CDROLOG Vetland Hy Primary India Surface High Wa Saturatia Vater M Sedimer Drift Dep Algal Ma Iron Dep Inundati Water-S Ield Obser	Layer (if observed ches): Meats Hij below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial itained Leaves (B9) vations:	Imagery (E	observations in Rema conface observations in Rema ed: check all that appl Aquatic Fa Tilapia Ner Tilapia Ner Tilapia Ner Tilapia Ner Tilapia Ner Tilapia Ner Tilapia Ner Tilapia Ner Oxidized Fa Presence of Recent Iro Thin Muck Fiddler Cra 37) and Am Other (Exp	arks, if need arks, if need auna (B13) sts (B17) Sulfide Od Rhizosphere of Reduced n Reductio Surface (C ab Burrows erican Sam plain in Rer	ded.) ded.) ded.) des on Liv d Iron (C4 n in Tille C7) (C10) (C noa) narks)	ing Roots ( 4) d Soils (C6 Guarn, CNM	Hydric Soil 	I Present Mathematical Analysis and the Analysis and the	? Yes NS U tors (mini Cracks (E jetated Co terns (B1 Water Tat (C5) ressed Pl Position ( tard (D3) Test (D5)	No No WetRS: mum of two reg 36) oncave Surface 0) ole (C2) lants (D1) D2)
	Layer (if observed ches): Meets Hy below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial itained Leaves (B9) vations: er Present?	Imagery (E	observations in Rema d: check all that appl Aquatic Fa Aquatic Fa Tilapia Ne Oxidized F Presence Recent iro Fiddler Cra S7) and Am Other (Exp No Depth (int	arks, if need auna (B13) sts (B17) Sulfide Od Rhizosphere of Reduced n Reductio Surface (C ab Burrows erican Sam plain in Rer ches):	ded.) ded.) ded.) ded.) d Iron (C4 n in Tille (C10) (C noa) narks)	ing Roots ( 4) d Soils (C6 Guam, CNM	Hydric Soil	I Present	Yes NS U tors (mini Cracks (B jetated Co terns (B1 Water Tat (C5) ressed Pl Position ( tard (D3) Test (D5)	No Metross mum of two reg 16) oncave Surface 0) ole (C2) lants (D1) D2)
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VDROLOG     VOROLOG     Voltand Hy     Crimary India     Surface     High Wa     Saturatia     Vater M     Sedimer     Drift Dep     Algal Ma     Iron Dep     Inundati     Water-S     Voltand Exercise     Voltand Py     Sedimer     Drift Dep     Algal Ma     Iron Dep     Inundati     Water-S     Voltand Py     Voltand Py     Sedimer     Drift Dep     Algal Ma     Iron Dep     Inundati     Voltand Py     Sedimer     Surface Water-S     Surface-S     Surfac	Layer (if observed ches): Meets Hij below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial itained Leaves (B9) vations: er Present? Present? present? corded Data (stream	Imagery (E Yes res	observations in Rema observations in Rema ed: check all that appl 	arks, if need arks, if need auna (B13) sts (B17) Sulfide Od Rhizosphere of Reduceto Surface (C ab Burrows erican San blain in Rer ches): ches): ches): ches):	ded.) ded.) or (C1) es on Liv d Iron (C4 n in Tille C7) (C10) (C toa) narks)	ing Roots ( 4) d Soils (C6 Suam, CNM Weth pections), i	Hydric Soil 	I Present March 1 o Analysis of the Analysis o	Yes NS L tors (mini Cracks (E jetated Co terns (B1 Water Tab (C5) ressed Pl Position ( tard (D3) Test (D5)	No No No
Type: Depth (in Remarks: TOROLOG Vetland Hy Primary India Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Water-S Ield Obser Surface Water Vater Table aturation Princludes cap escribe Ree	Layer (if observed ches): Meets Hij below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial itained Leaves (B9) vations: er Present? Present? pillary fringe) corded Data (stream	Imagery (E	observations in Rema observations in Rema ed: check all that appl 	arks, if need arks, if need auna (B13) sts (B17) Sulfide Od Reduced of Reduced n Reductio Surface (C ab Burrows erican Sam plain in Rer ches): ches): ches): ches): ches):	ded.) or (C1) es on Liv d Iron (C4 n in Tille C7) G (C10) (C noa) narks) vious ins	ing Roots ( ) d Soils (C6 Suam, CNN Wetk pections), i Qacut	Hydric Soil Second Second Sur Sur Sur Sall Hydrolog f available:	I Present	? Yes NS U tors (mini Cracks (E petated Co terns (B1 Water Tat is (C5) ressed Pl Position ( tard (D3) Test (D5) t? Yes	No N
Contractions  C	Layer (if observed ches): Meets Hy below La Y drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial itained Leaves (B9) vations: er Present? Present? present? present? corded Data (stream Test pit e	Imagery (E Yes res n gauge, m	observations in Rema observations in Rema ed: check all that appl 	arks, if need arks, if need auna (B13) sts (B17) Sulfide Od Rhizosphere of Reduceto Surface (C ab Burrows erican Sam blain in Rer ches): ches): ches): ches): ches):	ded.) or (C1) es on Liv d Iron (C4 n in Tille (C10) (C noa) narks) vious ins e N2 e N2	ing Roots ( 4) d Soils (C6 Suam, CNN Wether pections), in Case 15 Case 15	Hydric Soil 	I Present	? Yes NS U tors (mini Cracks (B jetated Co terns (B1 Water Tat is (C5) ressed Pl Position ( tard (D3) Test (D5) t? Yes	No No No No

US Army Corps of Engineers

Project/Site: TINIAN WETLANDS Setenmo	24 tow City: Si	ampling Date: 12-1-14 Time: 0120
Applicant/Owner: U.S. Navy	State/Terr/Comlth.: Truce N	sland: TINAL Sampling Point: H .
Investigator(s):		TMK/Parcel:
Landform (hillslope, coastal plain, etc.): Level Plata	Local relief (conc	ave, convex, none): Level
Lat: Long:	Datum	1: Slope (%): 🗢
Soil Map Unit Name: CUINEN chay Locen O	1-5% clopes (7HIT10 1	NWI classification: NO FINC
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? やの Are "Normal Circu	imstances" present? Yes X No
Are Vegetation, Soil, or Hydrology natura	Ily problematic? NO (If needed, explain	n any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	NoX
Remarks: This site is gnowith foue	cleaning	, wat we	thand-it is	upland	Second

#### VEGETATION - Use scientific names of plants.

Tree_Stratum (Plot size: \00 x 100')	Absolute % Cover	Dominan Species	t Indicator Status	Dominance Test workshe	et:	
1. Melanolepis	- 20	Ves	SPL	That Are OBL, FACW, or F	AC: C	(A)
2. Leucaeva	20	105	UPL			- (4)
3. Pithescellobush	_20	yes	UPL	Total Number of Dominant Species Across All Strata:		_ (B)
5				Percent of Dominant Speci That Are OBL, FACW, or F	es AC:	(A/B)
Carling/Charle Charles (Division 50)	_60	= Total C	over			- ((()))
1				Prevalence Index worksh Total % Cover of:	eet: Multiply by:	
2. Loucaepa	S		U9L	OBL species	_ x1=	
3				FACW species	x2=	
4				FAC species	x 3 =	<b>—</b>
5				FACU species	_ x4-	2
	1.1	- Total C	OVOF	1IPI species		
Herb Stratum (Plot size: 10 X \ 0' )	-	/ otdi c	0000	Column Totals		- (0)
1	· · · · · · · · · · · · · · · · · · ·	2			_ (A)	(B)
2				Prevalence Index = E	3/A =	
3				Hydrophytic Vegetation I	ndicators:	
4. poly podlow scoloperation			FALIN	X 1 - Rapid Test for Hydr	onhytic Veretation	
5		1	JACO	2 - Dominance Tect is	SEO%	
6 Nerthandone 50			-	2 Drovolonce Index is	-201	
7			HC.	5 - Prevalence index is	, ≥3.0	1.1
8				Remarks or in the de	lic Vegetation' (Expli lineation report)	ain in
Woods Vine Stratum (Distring)		= Total C	over	<sup>1</sup> Indicators of hydric soil an	d wetland hydrology	muct
1.				be present, unless disturbe	d or problematic.	must
2				Hydrophytic		
		= Total C	over	Present? Yes	No X.	
Remarks: upland forest NO O ON List (= UPL)	BLIFAC	. نسا ،	nost Pl	ANTS QUE NOT		

US Army Corps of Engineers

Hagoi Road #1

TOTILE Des	cription: (Describe t	o the dept	n needed to	aocum	ent the li	ndicator	or confirm	n the abso	ence o	f indicat	ors.)			
Depth Inches)	Matrix	0/.	Color (m	Redox	Features	Tumol	12	Territor						
	DE/2 (EUR)			ist)		Type	LOC	lextu	<u>e</u> .	1	1	Reman	is .	4
)-12	20012 () 114	100						Loan	<u> </u>	loa	my	"To	4501	
2-16	M.SYR-4/4	100				_		ha	rð y	Packe	0 0	2101	1	
	·				_				_					
Vpe: C=C	oncentration. D=Depl	tion. RM=	Reduced Ma	trix MS:	=Masked	Sand Gr	aine	21		PI -Do	ro Li	ning M	Motrix	
ydric Soil	Indicators:		toddood int	ana, wo	Indakcu	Gana Gia	2013.	Indica	tors f	or Proble	enati	ic Hyd	-Mairb	e <sup>3</sup> .
Histoso	I (A1)		Sand	Redox	(\$5)			S	tratifio	d l avore	(45)	io nya	10 001	3.
Histic E	pipedon (A2)		Dark	Surface	(S7)			S	andv M	Aucky Mi	heral	(S1)		
_ Black H	listic (A3)		Loam	y Gleyed	Matrix (F	F2)		R	ed Par	ent Mate	rial (I	=21)		
_ Hydrog	en Sulfide (A4)		Deple	ted Matr	ix (F3)			v	erv Sh	allow Da	k Su	rface (	(F12)	
Muck P	resence (A8)		Redo	Dark S	urface (Fi	6)			ther (E	Explain in	Rem	arks)		
_ Deplete	d Below Dark Surface	(A11)	Deple	ted Dark	Surface	(F7)								
_ Thick D	ark Surface (A12)		Redo	Depres	sions (F8	3)	<sup>3</sup> Indic	ators of hy	/droph	vtic vege	tatior	and w	etland	hydrology
_ Sandy	Gleyed Matrix (S4)			2.20			mu	ist be pres	ent, ur	nless dist	urbed	d or pro	blemat	ic,
estrictive	Layer (if observed):							1		-				
Type:														
Depth (in	iches):							Hudrie	Sail	Procont?	v			X
								Inyuno	00111	reactit:			- 11	021
	Cleanly	not	hydn	ne s	σιι									,
/DROLOG	Cleanly Y drology Indicators:	Not	んらるか oservations i	n Remar	ks, if nee	ded.)							-	
/DROLOG Vetland Hy	Cleanly Y rdrology Indicators: cators (minimum of or	Not (Explain of	Wigdow oservations i check all th	n Remar	ks, if nee	ded.)		<u>Sec</u>	condar	y Indicato	ors (n	ninimun	n of two	) required
/DROLOG Vetland Hy Surface	Y Y Cleanly Y rdrology Indicators: cators (minimum of or Water (A1)	(Explain ol le required	Wigdow pservations i <u>check all th</u>	n Remar at apply uatic Fau	ks, if nee	ded.)		<u>Sec</u>	condar Surfa	y Indicato	ors (n	ninimur s (B6)	n of two	
/DROLOG Vetland Hy rimary Indi Surface High W	Y Y Cleanly Y rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2)	(Explain of ne required	Wisdow pservations i <u>check all th</u> Aqu Tila	n Remar at apply uatic Fau pia Nest	ks, if nee na (B13)	ded.)		<u>Sec</u>	condar Surfa Spars	y Indicato ce Soil C	ors (m racks	ninimur s (B6) I Conce	n of two	o required
/DROLOG Vetland Hy rimary Indi Surface High W. Saturati	Y rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3)	(Explain of the required	Wisdow pservations i <u>check all th</u> Aqu Tila Hyu	n Remar at apply Juatic Fau pia Nest	ks, if nee ) una (B13) ts (B17) Sulfide Od	ded.)		<u>Sec</u>	condar Surfa Spars Drain	y Indicato ce Soil C sely Vege age Patte	ors (m racks tated	ninimur s (B6) I Conce (B10)	n of two	o required
DROLOG Vetland Hy rimary Indi Surface High W Saturati Water N	Y rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1)	(Explain of the required	bservations i check all th Aqu Tila Hyu Oxi	n Remar at apply Jatic Fau pia Nest Brogen S dized Ri	ks, if nee ) Ina (B13) Is (B17) Sulfide Od	ded.) lor (C1) res on Livi	ing Roots	<u>Sec</u>	sondar Surfa Spars Drain Drv-S	y Indicato ce Soil C sely Vege age Patte eason W	ors (n racks stated erns ( later	ninimur s (B6) I Conca (B10) Table (	n of two ive Sur	a requirect
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Project/Site: TINGLAS LODOF CLAST Deter MILKETION C	tty: Sampling Date: 12-1-14 Time: 0745
Applicant/Owner: So S	state/Terr/Comith.: TINGN Island: TINGAN Sampling Point: H2
Investigator(s): Dan Wooster	TMK/Parcel:
Landform (hillslope, coastal plain, etc.): Level Plateau	Local relief (concave, convex, none): NONC
Lat: Long:	Datum: Slope (%): (7)
Soil Map Unit Name: China Clay Loan D. 5%	lopes Ubit 10 NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? (VD Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problem	atic? NO (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	npling point locations, transects, important features, etc.
Hudronhutic Vogetetion Procent? Ver	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No _X Yes No _X Yes No _X	Is the Sampled Area within a Wetland?	Yes	No_X
Remarks: cleanly Not Soil, No cer l	e wetlawd up i Itydnology	and powert.	Loamy w	ell drained

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test works	neet: cies	
2 Deloury			1.01	That Are UBL, FAGW, or	FAC:	_ (A)
3 Carena Marga			Aril Aril	Total Number of Dominar	nt	
4		r	neo	Species Across All Strata		_ (B)
5				Percent of Dominant Spe That Are OBL, FACW, or	cies FAC:	_ (A/B)
Sapling/Shrub Stratum (Plot size:) 1.			er	Prevalence Index works	sheet:	
2. 511001010 510				OBL spacios		
3.			·	FACW species	X 1 =	-
4				EAC species		1
5.				EACU species		
		- Total Co			X4=	
Herb Stratum (Plot size:)			ver	Column Totals	X D =	
1						(B)
2. Fenn polypodium scolopissoura			FACU	Prevalence Index =	= B/A =	
3				Hydrophytic Vegetation	Indicators:	
4. Nephnolepis		FAC	REALV	X 1 - Rapid Test for Hy	drophytic Vegetation	
5				2 - Dominance Test i	s >50%	
6				3 - Prevalence Index	is ≤3.0 <sup>1</sup>	
78				Problematic Hydroph Remarks or in the o	ytic Vegetation <sup>1</sup> (Expl delineation report)	ain in
Woody Vine Stratum (Plot size:)		= Total Cov	er	<sup>1</sup> Indicators of hydric soil a be present, unless disturt	nd wetland hydrology bed or problematic.	must
2. Alecatomins			UPL	Hydrophytic		
Freed white		= Total Cov	er	Vegetation Present? Yes	No X	
Remarks: cleanly upland sec ane port listed (=0	PL) 2	growt FACL	th fo	rest most plo	LINTS	

## Hagor Road #2

Torne Description: (Describe to the dep	in needed to document the indicato	r or contirm	the absence of	of indica	ators.)	
nches) Color (moist) %	Redox Features	Loc <sup>2</sup>	Toxture		Domodes	
TID 1-5487.5/3 100			ICALUIE		Remarks	
10 102 102 100			obje loai	ч	Julable	
2-16+ SUR 34 100				1.2.4	Decetion	14.0.0
				-100	VISTINCI	HORIZ
					nano par	ACO CK
ype: C=Concentration, D=Depletion, RM	=Reduced Matrix, MS=Masked Sand G	irains.	<sup>2</sup> Location	n: PL=F	Pore Lining, M=Mat	rix.
dric Soil Indicators:			Indicators f	or Prob	lematic Hydric Sc	ils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (S5)		Stratifie	d Layer	s (A5)	
_ Histic Epipedon (A2)	Dark Surface (S7)		Sandy I	Mucky N	lineral (S1)	
- Hydrogen Sulfide (A4)	Deploted Matrix (F2)		Red Pa	rent Ma	terial (F21)	
Muck Presence (A8)	Redox Dark Surface (F6)		very sr	allow D	ark Surface (1F12)	
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)			zxpiairi i	n Remarks)	
Thick Dark Surface (A12)	Redox Depressions (F8)	<sup>3</sup> Indica	tors of hydroph	vtic veo	etation and wetlan	hydrolog
Sandy Gleyed Matrix (S4)		mus	t be present, u	nless dis	sturbed or problem	atic.
estrictive Layer (if observed):						
Туре:			1			
Depth (inches):			Hydric Soil I	resent	? Yes	NoX
DROLOGY	Loamy Soil with	2007 C	oncent	nati	ans, deple	+10125
DROLOGY etc fetland Hydrology Indicators: (Explain of	boservations in Remarks, if needed.)	2007 CI	oncent	nati	ans, depie	+10025
DROLOGY fetland Hydrology Indicators: (Explain of firmary Indicators (minimum of one required Surface Water (11)	beservations in Remarks, if needed.)	.007 (1	Secondar	y Indica	an 5, depte	ر حرم t + ۱
DROLOGY etand Hydrology Indicators: (Explain of rimary Indicators (minimum of one required Surface Water (A1)	bbservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13)	.007 (1	_ <u>Secondar</u> Surfa	y Indica	and 5, de pie	ל בעסו ל vo required
DROLOGY etand Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3)	bbservations in Remarks, if needed.) <u>d: check all that apply)</u> <u>Aquatic Fauna (B13)</u> <u>Tilapia Nests (B17)</u> <u>hudroson Sulfide Oder (O1)</u>	2007 CI	o NCeNT <u>Secondar</u> Surfa Spara	<u>v Indica</u> ce Soil	an ک, هو و او tors (minimum of tw Cracks (B6) getated Concave Si	ر حرم t + ر vo required urface (B8)
DROLOGY Vetland Hydrology Indicators: (Explain of timary Indicators (minimum of one required 	bbservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Ovidized Phizophazes on Li		<u>Secondar</u> <u>Secondar</u> <u>Surfa</u> <u>Spars</u> <u>Drain</u>	y Indica ce Soil sely Veg age Pat	au کی معرورات tors (minimum of tu Cracks (B6) jetated Concave Si tterns (B10)	ל בעסו ל vo required
DROLOGY /etland Hydrology Indicators: (Explain of timary Indicators (minimum of one required 	bbservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Pedugod Iron (C	ving Roots (C	<ul> <li>Secondar</li> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>Dr3)</li> <li>Dry-S</li> <li>C3)</li> </ul>	y Indica ce Soil sely Veg age Pat	au کی معرور او tors (minimum of tu Cracks (B6) jetated Concave Si tierns (B10) Water Table (C2)	ל בעס ל vo required
DROLOGY (etland Hydrology Indicators: (Explain or cimary Indicators (minimum of one required 	beservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Till	ving Roots (CA)	<ul> <li>Secondar</li> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3) Dry-S</li> <li>Salt [</li> <li>Salt [</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits	tors (minimum of the Cracks (B6) getated Concave Si tierns (B10) Water Table (C2) s (C5)	ל בעסו ל <u>vo required</u> urface (B8)
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Deservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Tilling Thin Murch Surface (C2)	ving Roots (C 24) ed Soils (C6)	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Sturt</li> <li>Sturt</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St	tors (minimum of two Cracks (B6) getated Concave So iterns (B10) Water Table (C2) 5 (C5) ressed Plants (D1)	ל בעס ו <u>vo requirec</u> urface (B8)
DROLOGY Tetland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Deservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Citation Control (C1) Citation Control (C1) Recent Iron Reduction in Tille Thin Muck Surface (C7) Fiddler Crab Burrows (C10)	ving Roots (C 24) ed Soils (C6)	<ul> <li>Secondar</li> <li>Surfa</li> <li>Spara</li> <li>Drain</li> <li>Drain</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Stunt</li> <li>Stant</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic	tors (minimum of two Cracks (B6) getated Concave So items (B10) Water Table (C2) s (C5) iressed Plants (D1) Position (D2) tord (D2)	ל בעס ו vo required
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B)	bbservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Tilli Thin Muck Surface (C7) Fiddler Crab Burrows (C10) ( and American Samoa)	ving Roots (C 4) ed Soils (C6)	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Drain</li> <li>Drain</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui	tors (minimum of tw Cracks (B6) petated Concave Si iterns (B10) Water Table (C2) c (C5) ressed Plants (D1) Position (D2) tard (D3) Teet (D5)	ל בעס א vo required
Well Granved etc. DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B' Water-Stained Leaves (B9)	bbservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Tilli Thin Muck Surface (C7) Fiddler Crab Burrows (C10) of and American Samoa) Other (Explain in Remarks)	ving Roots (C 4) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3) Dry-S</li> <li> Stant</li> <li> Stant</li> <li> Geon</li> <li>I, Shall</li> <li> FAC-</li> </ul>	y Indica cce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral	tors (minimum of two Cracks (B6) petated Concave So iterns (B10) Water Table (C2) s (C5) iressed Plants (D1) Position (D2) tard (D3) Test (D5)	ל בעס ו vo required
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Inundation Visible on Aerial Imagery (B' _ Water-Stained Leaves (B9) eld Observations:	beservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Tilapia Nests (B17) Network (B17) Recent Call that apply) Presence of Reduced Iron (C Recent Iron Reduction in Till Thin Muck Surface (C7) Fiddler Crab Burrows (C10) ( and American Samoa) Other (Explain in Remarks)	ving Roots (( 24) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits red or St norphic ow Aqui Neutral	tors (minimum of the Cracks (B6) getated Concave Si iterns (B10) Water Table (C2) s (C5) irressed Plants (D1) Position (D2) tard (D3) Test (D5)	ע בעס ו vo required
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B' Water-Stained Leaves (B9) eld Observations: Jarface Water Present? Yes	beservations in Remarks, if needed.) d: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Li Presence of Reduced Iron (C Recent Iron Reduction in Tilli Thin Muck Surface (C7) Fiddler Crab Burrows (C10) of and American Samoa) Other (Explain in Remarks) No X Depth (inches):	ving Roots (C 24) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits ed or St norphic ow Aqui Neutral	tors (minimum of two Cracks (B6) getated Concave So items (B10) Water Table (C2) s (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	ל בעס א vo required urface (B8)
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B' Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes fater Table Present? Yes	LORING       Soil with         observations in Remarks, if needed.)	ving Roots (C ;4) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral	tors (minimum of two Cracks (B6) getated Concave So iterns (B10) Water Table (C2) s (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	ל בעס א vo required
DROLOGY Tetland Hydrology Indicators: (Explain of imary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B' Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes fater Table Present? Yes aturation Present? Yes	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (C 4) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Syars</li> <li>Drain</li> <li>Drain</li> <li>Dry-S</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral	tors (minimum of two Cracks (B6) petated Concave Sitterns (B10) Water Table (C2) s (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required urface (B8)
Werk       Graci Net D         e+c         DROLOGY         retland Hydrology Indicators: (Explain of timary Indicators (minimum of one required)         _ Surface Water (A1)         _ High Water Table (A2)         _ Saturation (A3)         _ Water Marks (B1)         _ Sediment Deposits (B2)         _ Drift Deposits (B3)         _ Algal Mat or Crust (B4)         _ Iron Deposits (B5)         _ Inundation Visible on Aerial Imagery (B')         _ Water-Stained Leaves (B9)         eld Observations:         urface Water Present?       Yes         ater Table Present?       Yes         aturation Present?       Yes	Loamy       Soil with         observations in Remarks, if needed.)          d: check all that apply)	ving Roots (C 24) ed Soils (C6) (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Syars</li> <li>Spars</li> <li>Drain</li> <li>C3) Dry-S</li> <li> Stant</li> <li> Stant</li> <li> Geon</li> <li>I, Shall</li> <li> FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral Presen	tors (minimum of two Cracks (B6) petated Concave So tterns (B10) Water Table (C2) s (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required unface (B8)
Well Grainsed etc	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (( 24) ed Soils (C6) (Guam, CNM (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Geom</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits ed or St norphic ow Aqui Neutral Presen	tors (minimum of the Cracks (B6) yetated Concave Stitterns (B10) Water Table (C2) s (C5) tressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required urface (B8)
WELL       Graci Net 2         e+c         DROLOGY         /etland Hydrology Indicators: (Explain or rimary Indicators (minimum of one required)	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (C 24) ed Soils (C6) (Guam, CNM (Guam, CNM	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits red or St norphic ow Aqui Neutral	tors (minimum of the Cracks (B6) getated Concave So items (B10) Water Table (C2) s (C5) tressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required urface (B8)
Well Granipe d etc	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (C 24) ed Soils (C6) (Guam, CNM (Guam, CNM Wetlau spections), if	<ul> <li>Secondar</li> <li>Surfa</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3)</li> <li>Dry-S</li> <li>Salt I</li> <li>Stunt</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil sely Veg age Pat Season N Deposits ed or St norphic ow Aqui Neutral	tors (minimum of two Cracks (B6) getated Concave So items (B10) Water Table (C2) is (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required urface (B8)
Well Graniped etc	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (C 24) ed Soils (C6) (Guam, CNM (Guam, CNM	Secondar 	y Indica ce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral Presen	tors (minimum of two Cracks (B6) getated Concave So iterns (B10) Water Table (C2) s (C5) rressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo required urface (B8)
DROLOGY etland Hydrology Indicators: (Explain of imary Indicators (minimum of one required _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Inundation Visible on Aerial Imagery (B' _ Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes ater Table Present? Yes ater Table Present? Yes cludes capillary fringe) scribe Recorded Data (stream gauge, mo	Loamy       Soil with         observations in Remarks, if needed.)          d: check all that apply)	ving Roots (C 24) ed Soils (C6) (Guam, CNM (Guam, CNM	Secondar 	y Indica cce Soil sely Veg age Pat Season V Deposits ed or St norphic ow Aqui Neutral	and 5, de gie tors (minimum of the Cracks (B6) getated Concave Si iterns (B10) Water Table (C2) is (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5) t? Yes	vo required urface (B8)
DROLOGY ettand Hydrology Indicators: (Explain of imary Indicators (minimum of one required _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Inundation Visible on Aerial Imagery (B' _ Water-Stained Leaves (B9) eld Observations: urface Water Present? Yes ater Table Present? Yes ater Table Present? Yes cludes capillary fringe) =scribe Recorded Data (stream gauge, mo	Loamy       Soil with         observations in Remarks, if needed.)	ving Roots (C 24) ed Soils (C6) (Guam, CNM Wetlan spections), if	<ul> <li>Secondar</li> <li>Surfa</li> <li>Spars</li> <li>Drain</li> <li>C3) Dry-S</li> <li>Salt I</li> <li>Geon</li> <li>I, Shall</li> <li>FAC-</li> </ul>	y Indica ce Soil ( sely Veg age Pat Season N Deposits ed or St norphic ow Aqui Neutral Presen	tors (minimum of two Cracks (B6) Jetated Concave Sitterns (B10) Water Table (C2) is (C5) ressed Plants (D1) Position (D2) tard (D3) Test (D5)	vo require urface (B8)

Project/Site: TINIAN USETLAND De	tenungtion	City:	Sampling Date	12-1-14 Time	0410
Applicant/Owner: U.S. Navy		State/Terr/Comith :	CNW Island True		Dation 152
Investigator(s): Day inposter				W/Decest	Point; <u>rt</u> =
Landform (hillslope, coastal plain, etc.):	plateau	Loc	al relief (concave, convex	none): NONC	
Lat: Lon	q:		Datum:	Slone (%)	192
Soil Map Unit Name: China clay Loa	24 0-5% 1	ISINT 10	NW/ classifier		0
Are climatic / hydrologic conditions on the site typical	for this time of year	2 Vos No			
Are Vegetation Soil or Hydrology	significantly di	sturbad 213/2 Are 1	(ii no, explain in Ri	emarks.)	2
Are Vegetation Soil or Hydrology	Significantity u	sturbeur po Are	Normal Circumstances" p	resent? Yes X	No
	naturally prob		eeded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site	map showing s	ampling point l	ocations, transects,	important featur	res, etc.
Hydric Soil Present?     Yes       Wetland Hydrology Present?     Yes	No X No X	is the Sampled within a Wetlan	nd? Yes	No_ <u>X</u>	
Remarks: This site is cleanly well drained soils, b	iy Not we	sot present	Land Seconda	snowth fore	51
/EGETATION - Use scientific names of	plants.				_
Tree Stratum (Plot size: 100 x ( b2 )	Absolute	Dominant Indicator	Dominance Test works	sheet:	
1. Melanoleois	<u>% Cover</u>	Species? Status	Number of Dominant Sp	ecies	
2. Casuanina		ER(1)	That Are UBL, FACW, o	r FAC:	_ (A)
3		1000	Total Number of Domina Species Across All Strat	ant	(5)
4. ald alberta		UPL	openes Adross All Stat	a	_ (B)
5			Percent of Dominant Sp That Are OBL, FACW, o	ecies r FAC:	(A/R)
Sanling/Shruh Stratum (Plot size-	,	Total Cover	December of Later of		_ ((0.0))
1.	_		Total % Covor of	Sheet:	
2.			OBI species		
3			FACW species	x2=	
4,			FAC species	x 3 =	
5			FACU species	x 4 =	
Harb Stratum (Blat size		= Total Cover	UPL species	x 5 =	
1			Column Totals:	(A)	(B)
2 Eaus Menth					

1	Column Totals: (A) (B)
2. Fenns Ritemis with	Prevalence Index = B/A =
3. Nephnelepis Sp FACNFACU Faca	Hydrophytic Vegetation Indicators:
4	A 1 - Rapid Test for Hydrophytic Vegetation     2 - Dominance Test is >50%
6	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain in Remarks or in the delineation report)
Woody Vine Stratum (Plot size:) = Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. MIKANIA SCANDENS FACU	be present, unless disturbed or problematic.
2. vosany ben Abnos - UPL	Hydrophytic Veretation
Pirecalorius - Total Course	Present? Vec No Y

Hagoi Road #3 SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** (inches) Color (moist) Color (moist) % Type<sup>1</sup> Loc<sup>2</sup> Texture Remarks 0-12 7.54R 2.5/3 100 LOAM No Howzons 12-17+ SYR 3/4 100 <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils3: Histosol (A1) \_ Sandy Redox (S5) Stratified Layers (A5) Histic Epipedon (A2) \_\_\_ Dark Surface (S7) Sandy Mucky Mineral (S1) Black Histic (A3) Loamy Gleyed Matrix (F2) Red Parent Material (F21) Hydrogen Sulfide (A4) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Muck Presence (A8) Redox Dark Surface (F6) Other (Explain in Remarks) \_\_\_ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) \_\_\_\_ Thick Dark Surface (A12) Redox Depressions (F8) <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology Sandy Gleved Matrix (S4) must be present, unless disturbed or problematic. Restrictive Layer (if observed): NONE Type: Depth (inches): No X Hydric Soil Present? Remarks: well dranced loany WITHOUT 5011 conceptnetions depietions HYDROLOGY Wetland Hydrology Indicators: (Explain observations in Remarks, if needed.) Primary Indicators (minimum of one required: check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) \_\_\_\_ Aquatic Fauna (B13) Surface Soil Cracks (B6) High Water Table (A2) \_\_\_\_ Tilapia Nests (B17) Sparsely Vegetated Concave Surface (B8) \_\_\_\_ Saturation (A3) \_\_\_\_ Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) \_\_\_\_ Water Marks (B1) \_\_\_\_ Oxidized Rhizospheres on Living Roots (C3) \_\_\_ Dry-Season Water Table (C2) \_ Sediment Deposits (B2) Presence of Reduced Iron (C4) \_\_\_\_ Salt Deposits (C5) \_ Drift Deposits (B3) \_\_\_ Recent Iron Reduction in Tilled Soils (C6) \_\_\_\_ Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) \_ Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Fiddler Crab Burrows (C10) (Guam, CNMI, \_\_\_\_ Shallow Aquitard (D3) \_\_\_\_ Inundation Visible on Aerial Imagery (B7) and American Samoa) \_\_\_\_ FAC-Neutral Test (D5) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Yes \_\_\_\_ No X Depth (inches): Surface Water Present? Water Table Present? Yes No X Depth (inches): Saturation Present? Yes \_\_\_\_ No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: level usell draused

## Hagoi Road #44

## WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Project/Site: TINIAN Wetlawd Deter	MINDELLON City: Sampling Date: 12-1-14 Time: 0925
Applicant/Owner:	State/Terr/Comlth.: CNMI Island: TINGAN Sampling Point # 4
Investigator(s): Daw (2005ter	TMK/Parcel:
Landform (hillslope, coastal plain, etc.): Level P	lateau Local relief (concave, convex, none): NONC
Lat: Long:	Datum: Slope (%): (7)
Soil Map Unit Name: CULDEN Clay LOAM	0-5% slope 1710 NWI classification: NONC
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys	significantly disturbed? No Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology n	naturally problematic? NO (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No_X
Remarks: This site is Soil	cleanly	not weth	soo, verand f	orest well	draubed

VEGETATION - Use scientific names of plants.

í

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Ir Species?	ndicator Status	Dominance Test worksheet:	
1. Melanolepis		XV	191	That Are OBL, FACW, or FAC:	(A)
2. FICUS SP	21%		FAC		- 64
3. Pithecellobion diske			21PL	Species Across All Strata	(P)
4					. (0)
5				Percent of Dominant Species	(1.17)
		= Total Cove	r		. (A/B)
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:	
1. guarria		04	1	Total % Cover of:Multiply by:	
2. MOMINAG			-	OBL species x 1 =	_
3				FACW species x 2 =	_
4				FAC species x 3 =	
5				FACU species x 4 =	
Unde Caratana (Di a ta		= Total Cove	er	UPL species x 5 =	
Hero Stratum (Plot size:)				Column Totals: (A)	(B)
The Alternation					
2. rend prend biffor	<u></u>			Prevalence Index = B/A =	
3. Nephnologis sp		FACRE	RU	Hydrophytic Vegetation Indicators:	
4				▲ 1 - Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Expla	ain in
8				Remarks or in the delineation report)	
Weeds Vice Creative (Old - 1		= Total Cover	r	<sup>1</sup> Indicators of bydric soil and wotland bydrology	much
woody vine Stratum (Plot size:)		- A		be present, unless disturbed or problematic.	must
I.MIKANIG SCANDENS		44	RU	Underschulle	
2. HUMB pleig on 105			190	Vegetation	
the total normy Estada punsael	rg	= Total Cover	n in the second s	Present? Yes No X	
Remarks: Cloanly Second guo UPL or FACU	nith u	= Total Cover	Pores	Present? Yes No X	

			Sampling	Point:
Profile Description: (Describe	to the depth	needed to document the indicator or o	onfirm the absence of indicators.	
Depth Matrix		Redox Features		
(inches) Color (moist)		Color (moist) % Type <sup>1</sup> L	oc <sup>2</sup> Texture	Remarks
0-19+ 54R3/2	100		fiveloan unil	Down wold
	-		Va pi	NITONS
	•			
				*
Type: C=Concentration, D=Dep	letion, RM=R	educed Matrix, MS=Masked Sand Grains	<sup>2</sup> Location: PL=Pore Li	ning, M=Matrix,
ydric Soil Indicators:			Indicators for Problemat	ic Hydric Soils <sup>3</sup> :
_ Histosol (A1)		Sandy Redox (S5)	Stratified Layers (A5)	
_ Histic Epipedon (A2)		Dark Surface (S7)	Sandy Mucky Mineral	(S1)
_ Black HISUC (A3)		Loamy Gleyed Matrix (F2)	Red Parent Material (	F21)
Muck Presence (A8)		Depleted Matrix (F3) Redox Dark Surface (F6)	Very Shallow Dark Su	Iface (TF12)
Depleted Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)	Other (Explain in Ren	iarks)
Thick Dark Surface (A12)		Redox Depressions (F8)	<sup>3</sup> Indicators of hydrophytic vegetatio	and wetland hydrology
			,	and mondate my droid a
Sandy Gleyed Matrix (S4)			must be present, unless disturbe	d or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (if observed):			must be present, unless disturbe	d or problematic.
_ Sandy Gleyed Matrix (S4) estrictive Layer (if observed): Type:			must be present, unless disturbe	d or problematic.
- Sandy Gleyed Matrix (S4) estrictive Layer (If observed): Type: Depth (inches): emarks: >5% without	1-3" ( CONCER	- coval nocks, well stuations or depletion	Hydric Soil Present? Y	d or problematic. esNo X
Sandy Gleyed Matrix (S4) testrictive Layer (if observed): Type: Depth (inches): temarks: >5% without DROLOGY	1-3" ( Concer	coval nocks, well stuations in depletion	must be present, unless disturbe Hydric Soil Present? Y charred Loamy ?	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): temarks: >5 % without DROLOGY /etland Hydrology Indicators:	1-3" ( Conscen (Explain obs	ervations in Remarks, if needed.)	Must be present, unless disturbe Hydric Soil Present? Y chained Leawy 9	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): remarks: >5% without /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of o	I-3 <sup>IC</sup> ( CONCER (Explain obs ne required; c	coval nocks, well sthations on depletion ervations in Remarks, if needed.) sheck all that apply)	must be present, unless disturbe Hydric Soil Present? Y dharwed Loa wy 9 05 Secondary Indicators (r	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): Remarks: >5% without (DROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of o Surface Water (A1)	ا-ع <sup>اد</sup> ر د صهروس (Explain obs ne required; ر	ervations in Remarks, if needed.) heck all that apply) Aquatic Fauna (B13)	must be present, unless disturbe Hydric Soil Present? Y dharwed Loa wy 9 DS <u>Secondary Indicators (r</u> 	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): Remarks: >5% without /DROLOGY Vetland Hydrology Indicators: Inimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A2)	ا-ع <sup>اد</sup> ر د میردد. (Explain obs ne required: ر	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17)	must be present, unless disturbe         Hydric Soil Present?       Y         charwed       Lea wy       9         charwed       Lea wy       9         cost	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: >5% Without /DROLOGY Vetland Hydrology Indicators: Inimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ا-ع <sup>اد</sup> ر د صهرده (Explain obs ne required; c	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Ordered Difference Odor (C1)	must be present, unless disturbe Hydric Soil Present? Y dhanned Loa wy Secondary Indicators (r Surface Soil Cracks Drainage Patterns	d or problematic. es No ک Con ( hinimum of two required (B6) Concave Surface (B8) (B10)
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): Remarks: >5 % Without /DROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of of 	ا-ع <sup>اد</sup> ر د مهردور (Explain obs ne required; ر	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living   Presence of Beduced Ince (C1)	must be present, unless disturbe Hydric Soil Present? Y drawed Leawy 9 Secondary Indicators (r 	a or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): Remarks: >5 % Without /DROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	1-3" ( CONCER (Explain obs ne required; c	ervations in Remarks, if needed.) coval nocks, well stuations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Becent Iron Reduced Iron (C4)	must be present, unless disturbe Hydric Soil Present? Y dhanned Learny 9 Secondary Indicators (r 	d or problematic. es No X S O \ \ Dinimum of two required (B6) I Concave Surface (B8) (B10) Table (C2)
Sandy Gleyed Matrix (S4) testrictive Layer (If observed): Type: Depth (inches): temarks: >5% without /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of o Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ا-ع <sup>اد</sup> ر د صهرجه (Explain obs ne required; ر	ervations in Remarks, if needed.) strations in Remarks, if needed.) sheck all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7)	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       Samy       Y         dhanned       Surface Soil Cracks       Sparsely Vegetated          Sparsely Vegetated           Drainage Patterns       Roots (C3)           Salt Deposits (C5)       ils (C6)           Stunted or Stressed	A or problematic. A or problematic. A no X S O ( ) S
Sandy Gleyed Matrix (S4) testrictive Layer (If observed): Type: Depth (inches): temarks: >5% without DROLOGY /otland Hydrology Indicators: rimary Indicators (minimum of o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	I-3 <sup>IC</sup> ( CONCEL (Explain obs	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       bang       Y         dot       bang       Y	a or problematic.
Sandy Gleyed Matrix (S4) testrictive Layer (If observed): Type: Depth (inches): emarks: >5% without DROLOGY /otland Hydrology Indicators: fimary Indicators (minimum of o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I	ا-ع <sup>اد</sup> ر د صهردو. (Explain obs ne required: ر	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa)	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       bannyed       y         dhannyed       bannyed       y </td <td>a or problematic. https://www.communications.com/ binimum of two required (B6) Concave Surface (B8) (B10) Table (C2) d Plants (D1) m (D2) D3) D5)</td>	a or problematic. https://www.communications.com/ binimum of two required (B6) Concave Surface (B8) (B10) Table (C2) d Plants (D1) m (D2) D3) D5)
Sandy Gleyed Matrix (S4) estrictive Layer (If observed): Type: Depth (inches): emarks: >5 % without DROLOGY /etland Hydrology Indicators: fimary Indicators (minimum of of 	ا-ع <sup>اد</sup> ر د صهردوی (Explain obs ne required: ر	ervations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa) Other (Explain in Remarks)	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       Dawy       Y         dynamic       Dawy       Y         dynamic       Satificators (r       Y         gasta       Deposits (C5)       Stanted or Stresser         ils (C6)       Stallow Aquitard (I       FAC-Neutral Test (	d or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): Remarks: >5 % Without /DROLOGY /DROLOGY /Vetland Hydrology Indicators: rimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Water-Stained Leaves (B9) ield Observations:	ا-ع <sup>اد</sup> ر د ه بې د د د (Explain obs ne required; ر magery (B7)	ervations in Remarks, if needed.) stuations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tillapia Nests (B17) Aydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa) Other (Explain in Remarks)	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       Sawy         dhanned       Sawy         Secondary Indicators (r	A or problematic. A or problematic. A proble
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): Remarks: >5% Without /DROLOGY /DROLOGY /DROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY /UROLOGY	I-3 <sup>II</sup> ( CONCEN (Explain obs ne required; ( magery (B7) es No	ervations in Remarks, if needed.) stuations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Tilapia Nests (C10) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa) Other (Explain in Remarks)	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       Sawy       Y         dhanned       Sarat       Y         dhanned       Sarat       Y         dhanned       Sarat       Y         dhanned       Sarat       Y         Sparsely       Vegetated       Drainage         Drainage       Patterns       Salt         Roots (C3)       Dry-Season       Water         Salt       Deposits (C5)       Stunted or Stressed         Geomorphic Position       Shallow Aquitard (I         m, CNMI,       Shallow Aquitard Test (	A or problematic. A or problematic. A proble
Sandy Gleyed Matrix (S4) Restrictive Layer (If observed): Type: Depth (inches): temarks: >5% Without 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY 20ROLOGY	I-3 <sup>//</sup> ( CONCEL (Explain obs ne required; ( magery (B7) es No es No	ervations in Remarks, if needed.) stuations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Neets (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa) Other (Explain in Remarks) Depth (inches): Depth (inches):	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       bang       Y         gang       bang       Y         gang       bang       Y	a or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if observed): Type: Depth (inches): temarks: >5% without 'DROLOGY 'Vetland Hydrology Indicators: rimary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Water-Stained Leaves (B9) ield Observations: urface Water Present? Yr (ater Table Present? Yr aturation Present? Yr	ا – ع <sup>اد</sup> ر C کې د د ه (Explain obs ne required: ر magery (B7) es No es No es No	ervations in Remarks, if needed.) stuations in Remarks, if needed.) check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Tilapia Nests (B17) Aquatic Fauna (B13) Presence of Reduced Iron (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (Guar and American Samoa) Other (Explain in Remarks) <u>C</u> Depth (inches): <u>X</u> Depth (inches): X Depth (inches):	must be present, unless disturbe         Hydric Soil Present?       Y         dhanned       banny       Y         doots       C3)       Dry-Season Water         geomorphic Position       Shallow Aquitand (I         mann	a or problematic.

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Profile Description: (Describe to the depth needed to document the indicator or con	
	firm the absence of indicators.)
Uches) Color (moist) % Color (moist) % Toul	
Color (moist) % Color (moist) % Type' Loc'	Texture Remarks
-15,5 105 VR 205/1 160	<u>cloupy</u> i) chu dank hope
	(Dan Paula India
	hopizons
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix
ydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1) Sandy Redox (S5)	Stratified Lavers (A5)
_ Histic Epipedon (A2) Dark Surface (S7)	Sandy Mucky Mineral (S1)
Black Histic (A3) Loamy Gleyed Matrix (F2)	Red Parent Material (E21)
Hydrogen Sulfide (A4) Depleted Matrix (F3)	Very Shallow Dark Surface (TE12)
Muck Presence (A8) Redox Dark Surface (F6)	Other (Explain in Remarks)
_ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8) <sup>3</sup> In	dicators of hydrophytic vegetation and wetland hydrology
_ Sandy Gleyed Matrix (S4)	must be present, unless disturbed or problematic.
estrictive Layer (if observed):	
Туре:	
Depth (inches):	Hudric Soil Propost? You
emarke:	Injune son Flesent? Tes No 1
letland Hydrology Indicators: (Explain observations in Remarks, if needed.)	
rimary Indicators (minimum of one required; check all that apply)	
Curfores Mister (6.4)	Secondary Indicators (minimum of two required
_ Aquatic Fauna (B13)	Secondary Indicators (minimum of two required
_ Gunace vvater (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17)	<u>Secondary Indicators (minimum of two required</u> Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
_ Gunace water (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17) Saturation (A3) Hydrogen Sulfide Odor (C1)	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)
_ Surrace vvaler (A1) Aquatic Fauna (B13) High Water Table (A2) Tilapia Nests (B17) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres on Living Roc	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dre Season Water Table (C2)
Surrace vvaler (A1) Aquatic Fauna (B13)     High Water Table (A2) Tilapia Nests (B17)     Saturation (A3) Hydrogen Sulfide Odor (C1)     Water Marks (B1) Oxidized Rhizospheres on Living Roo     Sediment Deposits (B2) Presence of Reduced Iron (C4)	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Danabile (CD)     </li> </ul>
Surrace valuer (A1)     Aquatic Fauna (B13)     High Water Table (A2)     Saturation (A3)     Water Marks (B1)     Sediment Deposits (B2)     Drift Deposits (B3)     Aquatic Fauna (B13)     Tilapia Nests (B17)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Living Roo     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solid	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         Stunded or Standard Director (D1)         Standard Standard Director (D1)</li></ul>
Surface vialer (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roo         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7))	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         (C6)         Stunted or Stressed Plants (D1)         Concernent is Depining Concernent in Depining C</li></ul>
Surface votater (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roo         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C7)         Iron Deposits (B5)       Fiddler Crep Burgars (C10) (Current C10)	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         (C6)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         </li> </ul>
Surrace vvaler (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roo         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (C1)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, C         Inundation Visible on Aerial Imagent (B7)       Aquatic Fauna (B13)	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         Salt Deposits (C5)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Surface Soil Cracks (B6)         Surface Soil Cracks (B6)         Surface Soil Cracks (B6)         Solution         Solution</li></ul>
Surface votater (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Root         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guarn, C         Mutation Visible on Aerial Imagery (B7)       Water Stained Leaves (C0)	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         Salt Deposits (C5)         Geomorphic Position (D2)         Shallow Aquitard (D3)         FAC-Neutral Test (D5)         Salt Deposite (D5)         Surface Solution (D2)         Salt Deposite (D5)         Salt</li></ul>
Surrace vvaler (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Rood         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Algal Mat or Crust (B4)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, Call American Samoa)         Water-Stained Leaves (B9)       Other (Explain in Remarks)	<ul> <li><u>Secondary Indicators (minimum of two required</u></li> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Dts (C3)</li> <li>Dry-Season Water Table (C2)</li> <li>Salt Deposits (C5)</li> <li>(C6)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>CNMI,</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Surrace vvaler (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Rood         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Algal Mat or Crust (B4)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, C         Inundation Visible on Aerial Imagery (B7)       Mater-Stained Leaves (B9)         Water Stained Leaves (B9)       Other (Explain in Remarks)	<ul> <li><u>Secondary Indicators (minimum of two required</u></li> <li>Surface Soil Cracks (B6)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>ots (C3)</li> <li>Dry-Season Water Table (C2)</li> <li>Salt Deposits (C5)</li> <li>(C6)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>CNMI,</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Aquatic Fauna (B13)          High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Rood         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (A)         Algal Mat or Crust (B4)       Fiddler Crab Burrows (C10) (Guam, C)         Inundation Visible on Aerial Imagery (B7)       Mater-Stained Leaves (B9)         Water Present?       Yes No         Depth (inches):       Depth (inches):	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         FAC-Neutral Test (D5)         </li> </ul>
Surface vvaler (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Rood         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Algal Mat or Crust (B4)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, Call American Samoa)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Ield Observations:       Yes No X Depth (inches):         Mater Table Present?       Yes No X Depth (inches):	<ul> <li>Secondary Indicators (minimum of two required Surface Soil Cracks (B6)         Sparsely Vegetated Concave Surface (B8)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Salt Deposits (C5)         Salt Deposits (C5)         Geomorphic Position (D2)         Shallow Aquitard (D3)         FAC-Neutral Test (D5)         </li> </ul>
Surface vvaler (A1)       Aquatic Fauna (B13)         High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Algal Mat or Crust (B4)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, Call American Samoa)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         ield Observations:       Yes         urface Water Present?       Yes         No       Depth (inches):         aturation Present?       Yes         No       Depth (inches):         Autor Present?       Yes         No       Depth (inches):	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Geomorphic Position (D2)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Aquatic Fauna (B13)          High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, C         Mater-Stained Leaves (B9)       Other (Explain in Remarks)         eld Observations:       Yes         urface Water Present?       Yes         No       Depth (inches):         aturation Present?       Yes         No       Depth (inches):         Age Recorded Present?       Yes         No       Depth (inches):	Secondary Indicators (minimum of two required 
Aquatic Fauna (B13)          Aquatic Fauna (B13)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Iron Deposits (B5)         Water-Stained Leaves (B9)         Other (Explain in Remarks)         Ield Observations:         urface Water Present?         Yes         No       Depth (inches):         Ater Table Present?         Yes       No         Auguation Present?         Yes       No         Depth (inches):         Ater Table Present?         Yes       No         Auguation Present?         Yes       No         No       Depth (inches):         Autorian Present?         Yes       No         Depth (inches):       Water Table Present?	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)     NMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Aquatic Fauna (B13)          High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (Algal Mat or Crust (B4)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, Call and American Samoa)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Water Table Present?       Yes         Inface Water Present?       Yes         Ves       No         Atter Table Present?       Yes         No       Depth (inches):         Atter Table Present?       Yes         No       Depth (inches):         Water Table Present?       Yes         No       Depth (inches):         Water Table Present?       Yes         No       Depth (inches):         Water Table Present?       Yes         No       Depth (inches):	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)  NMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)  ettand Hydrology Present? Yes NoX  s), if available:
Aquatic Fauna (B13)          High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (A)         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, C)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         ield Observations:       Yes         urface Water Present?       Yes         No       Depth (inches):         //ater Table Present?       Yes         No       Depth (inches): <td>Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)  NMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)  ettand Hydrology Present? Yes NoX  s), if available:</td>	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)  NMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)  ettand Hydrology Present? Yes NoX  s), if available:
Aquatic Fauna (B13)  High Water Table (A2) Saturation (A3) Avater Marks (B1) Sediment Deposits (B2) Sediment Deposits (B2) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Ivater-Stained Leaves (B9) Set Mater Present? Ves No X Depth (inches): Atter Table Present? Yes No X Depth (inches): Mater Table Present? Yes No X Depth (inches): Yes No Xes No	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)     NMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Aquatic Fauna (B13) High Water Table (A2)	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Salt Deposits (C5)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Aquatic Fauna (B13) High Water Table (A2)	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     Salt Deposits (C5)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Aquatic Fauna (B13) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (B9) Water-Stained Leaves (B9) Water Table Present? Yes No X Depth (inches): 'ater Table Present? Yes Wo X Depth (inches): 'ater Table Present? Yes We Mo X A Depth (inches): 'ater Table Present? Yes We Mo X A Depth (inches): 'ater Table Present? Yes We Mo X A Depth (inches): 'ater Table Present A A A A A A A A A A A A A A A A A A A	Secondary Indicators (minimum of two required 
Aquatic Fauna (B13)          High Water Table (A2)       Tilapia Nests (B17)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Oxidized Rhizospheres on Living Roc         Sediment Deposits (B2)       Presence of Reduced Iron (C4)         Drift Deposits (B3)       Recent Iron Reduction in Tilled Soils (         Algal Mat or Crust (B4)       Thin Muck Surface (C7)         Iron Deposits (B5)       Fiddler Crab Burrows (C10) (Guam, C         Inundation Visible on Aerial Imagery (B7)       and American Samoa)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         ield Observations:       Ves         urface Water Present?       Yes         No       Depth (inches):         // attr Table Present?       Yes         No       Depth (inches):         aturation Present?       Yes         No       Depth (inches):         aturation Present?       Yes         No       Depth (inches):         escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections         emarks:       Level, well drames 3	Secondary Indicators (minimum of two required     Surface Soil Cracks (B6)     Sparsely Vegetated Concave Surface (B8)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Salt Deposits (C5)     (C6) Stunted or Stressed Plants (D1)     Geomorphic Position (D2)     CNMI, Shallow Aquitard (D3)     FAC-Neutral Test (D5)

# Hago Road #5

#### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Project/Site: TINIAN Welland Determiniction	City: Sampling Date: 12-1-14 Time: 0950
Applicant/Owner: U.S. Nauy	State/Terr/Comlth.: (NM(Island: TIN)(21) Sampling Point: 4.5
Investigator(s): Day WDOSter	
Landform (hillslope, coastal plain, etc.); Level Plateau	
Lat: Long	
Soil Man Unit Name: Classica Cl	Datum: Slope (%):
Are alimetia (hydrologia acaditions on the site to interference)	<u>CLEPE ONT LO</u> NWI classification: <u>NOPC</u>
Are clamatic / hydrologic contritions on the site typical for this time of y	ear? Yes X No (If no, explain in Remarks.)
Are vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	
Hydric Soil Present? Yes No X	Is the Sampled Area
Wetland Hydrology Present? Yes No X	within a Wetland? Yes No
Remarks: This site is cleanly not forest, well drained Loany	wetland; upland second quow th soil
VEGETATION - Use scientific names of plants.	
Tree Stratum (Plot size: ) % Cove	Dominant Indicator Dominance Test worksheet:
1. Melapoleois	Number of Dominant Species
2. Papana	(A)
3. Leamachilil	Total Number of Dominant
4. Pithecellobium dulce	UPL Species Across All Strata; (B)
5	Percent of Dominant Species
Continue Charles (Charles )	_ = Total Cover (AVB)
Sapling/Shrub Stratum (Plot size:)	Prevalence index worksheet:
2 Promusia	Iotal % Cover of: Multiply by:
3	OBL species X1 =
4.	FAC species X2=
5.	FACII species
	= Total Cover UPI species x 5 -
Herb Stratum (Plot size:)	Column Totals: (A) (B)
1. <u>rennisetun</u>	FACU
2. PICHIS VITA	Prevalence Index = B/A =
3. Fand Nephnolepis hirsulula	<u>FAC/FAC U</u> Hydrophytic Vegetation Indicators:
4	1 - Rapid Test for Hydrophytic Vegetation
p	2 - Dominance Test is >50%
7	3 - Prevalence index is \$3,0"
8.	Remarks or in the delineation report)
	- Total Cover
Woody Vine Stratum (Plot size:)	Indicators of hydric soil and wetland hydrology must
1. Entada pursaetha	UPI
2. Abros pre-cationius	- UPL Hydrophytic Vegetation
MOTBEAN ROSARY REA	_= Total Cover Present? Yes No X
Remarks:	anouth from
cleanly up land second	grower joiest

US Army Corps of Engineers

#### Hagoi Road #6

### WETLAND DETERMINATION DATA FORM - Hawai'i and Pacific Islands Region

Applicant/Owner: U.S. Navy		_ State/Terr/Comlth.	: CNM( Island: TIVIAN	Sampling	Point: H-
Investigator(s): Daw Whotev			TMK/Parc	:el:	
Landform (hillslope, coastal plain, etc.): Leuch	Plateau	Loc	al relief (concave, convex, none):	4001	R
Lat: Long: _			Datum:	Slope (%):	0
Soil Map Unit Name: CULINCAS Clay Los	am D-S	La clopes Uk	IT 10 NWI classification:	NONE	
Are climatic / hydrologic conditions on the site typical for	this time of yea	r? Yes X No	(If no. explain in Remarks	1	
Are Vegetation, Soil, or Hydrology	significantly d	isturbed? Are	"Normal Circumstances" procent?	Voc V	Ma
Are Vegetation . Soil or Hydrology		lomatic? //f n	aded embris environments	res_A	NO
SUMMARY OF FINDINGS – Attach site ma	ap showing s	sampling point	locations, transects, impo	ortant featu	res, etc.
Hydrophytic Vegetation Present? Ves	No X		A A A A A A A A A A A A A A A A A A A		-
Hydric Soil Present? Yes	No X	is the Sample	d Area		
Wetland Hydrology Present? Yes	No X	within a Wetla	nd? Yes N	• <u>X</u>	
Remarks: Thes site is clea will dained soil	inly po	t wetland	jupiand forest,	Loany	
VEGETATION - Use scientific names of pl	ants.		8		
Tree Stratum (Plot size)	Absolute	Dominant Indicator	Dominance Test worksheet:		
1. Melanonien	% Cover	Species? Status	Number of Dominant Species		-
2.		A UPL	That Are OBL, FACW, or FAC:		_ (A)
3.			Total Number of Dominant		-01
4.			Species Across All Strata:		(B)
5	1		Percent of Dominant Species		Const
		= Total Cover	That Are OBL, FACW, or FAC:		_ (A/B)
Sapling/Shrub Stratum (Plot size:)	_		Prevalence Index worksheet:		
1	_		Total % Cover of:	Multiply by:	2
2. Levenensa		UPL	OBL species	(1=	
3			FACW species 1	(2=	
4			FAC species	(3 =	
5			FACU species >	(4=	
Herb Stratum (Plot size: )		= Total Cover	UPL species )	(5 =	
1. PTenis Hitteta			Column Totals: (	A)	(B)
2. Nephioleosis SP		FALA FALU	Prevalence Index = B/A =		
3. Poly podlum scole RENDING		FREID	Hydrophytic Vegetation Indic	ators:	
4			X 1 - Rapid Test for Hydrophy	vtic Veoetation	
5			2 - Dominance Test is >50	%	
6			3 - Prevalence Index is ≤3.	0 <sup>1</sup>	
7			Problematic Hydrophytic V	egetation <sup>1</sup> (Exp	lain in
8			Remarks or in the delinea	ation report)	and all
Woody Vine Stratum (Plot size:)		Total Cover	<sup>1</sup> Indicators of hydric soil and we be present, unless disturbed or	tland hydrology problematic.	y must
1. MIKANIA SCALDENT		PACU	hudronhutio		
۷		Total Cover	Vegetation Present? Yes	No X	
5 6 7 8 Woody Vine Stratum (Plot size:) 1 1 NUKANIQ_GCALDENS 2 Remarks: Cleanly well draw		Total Cover FACU Total Cover	2 - Dominance Test is >509 3 - Prevalence Index is \$3,0 Problematic Hydrophytic Vor Remarks or in the delinear Indicators of hydric soil and we be present, unless disturbed or Hydrophytic Vegetation Present? Yes	% o <sup>1</sup> egetation <sup>1</sup> (Exp ation report) stland hydrology problematic.	lain in y must

US Army Corps of Engineers

## Hagoi Road #6

)epth Matrix	Dodey Francis	or commit (N	e ausence	on marcators.)
inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	1002	Toyturo	Domodes
2-16+ 1.5 VR 3/9 100		/	I CALUIC	Remarks
		Log	alay -	No honizong
			-lay_	NO NED OX
ype: C=Concentration, D=Depletion, R	M=Reduced Matrix, MS=Masked Sand Gr	ains.	<sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
ydric Soil Indicators:			Indicators	for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (S5)		Stratifie	d Layers (A5)
<ul> <li>Histic Epipedon (A2)</li> <li>Plack Histic (A2)</li> </ul>	Dark Surface (S7)		Sandy I	Nucky Mineral (S1)
- Hudrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Red Pa	rent Material (F21)
Muck Presence (A8)	Depieted Matrix (F3)		Very Sh	allow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Redux Dark Surface (FD)		Other (I	Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	3 Indicator	o of hudronk	dia
_ Sandy Gleyed Matrix (S4)		must be	a present u	place disturbed or pretiand hydrolog
estrictive Layer (if observed):		indist be	e preaerri, u	ness disturbed of problematic.
Туре:				
Depth (inches):			hadala Gall I	No. 1
amarke.		1	iyaric soli i	resent? Yes No X
DROLOGY	Thout conceptuations	ion de	pletion	d loamy soul
DROLOGY	observations in Remarks, if needed.)	in de	pletion	d loamy soul
DROLOGY etland Hydrology Indicators: (Explain imany Indicators (minimum of one requir	observations in Remarks, if needed.)	in de	Nalipe pletion Secondar	2 Loamy Soul
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1)	observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13)	in de	Secondar	2 Loamy Soul s <u>v Indicators (minimum of two required</u> ce Soil Cracks (B6)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2)	observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17)	in de	Secondar Secondar	a Loamy Soul s <u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	nobservations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1)	in de	Secondar Secondar Surfa Drain	2 Loamy Soul 25 <u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1)	nobservations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv	ing Roots (C3)	Secondar Surfa Spara Drain Dry-S	D Loamy Soul s <u>v Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	nobservations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4)	いこ( d う	Secondar Secondar Surfa Drain Dry-S Salt I	Deposits (C5)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3)	nobservations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tille	いこに( d う の de ) ing Roots (C3) 4) d Soils (C6)	Secondar Secondar Surfa Drain Dry-S Salt I Stunt	Deposits (C5) ed or Stressed Plants (D1)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	nobservations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7)	いこに( 人 う  の  d  e  , 」 ing Roots (C3) 4) d Solls (C6)	Secondar <u>Secondar</u> Surfa Drain Dry-S Salt I Stunt Geon	A Loamy Soul y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norohic Position (D2)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Theosit conceptuations observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C	ing Roots (C3) 4) d Solls (C6) Suam, CNMI,	Secondar Secondar Surfa Surfa Drain Dry-S Salt I Stunt Geon Shalk	A Loamy Soul y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (1)	Theost concept that ions observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C 37) and American Samoa)	ing Roots (C3) 4) d Solls (C6) Guam, CNMI,	Secondar Secondar Surfa Surfa Drain Dry-S Salt I Stunt Geon Shalk FAC-	A Loamy Soul y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) horphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (I Water-Stained Leaves (B9)	Theost concept that tong observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C 37) and American Samoa) Other (Explain in Remarks)	ing Roots (C3) d Solls (C6) Guam, CNMI,	Secondar Secondar Surfa Surfa Drain Dry-S Salt I Stunt Geon Shall FAC-	A Loamy Soul y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) Season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) horphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (I Water-Stained Leaves (B9) eld Observations:	Theost concept that tong observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tiller Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C B7) and American Samoa) Other (Explain in Remarks)	ing Roots (C3) からいのでの (C6) Guam, CNMI,	Secondar Secondar Surfa Surfa Drain Dry-S Salt I Stunt Geon Shalk FAC-	A Loamy Soul s y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Inundation Visible on Aerial Imagery (I _ Water-Stained Leaves (B9) eld Observations: Inface Water Present? Yes	Theost concept that ions observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tillea Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C B7) and American Samoa) Other (Explain in Remarks)	ing Roots (C3) 4) d Solls (C6) Guam, CNMI,	Secondar Secondar Surfa Spars Drain Dry-S Salt I Stunt Geon Shalk FAC-	J Loamy Soul y Indicators (minimum of two required ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) beason Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
DROLOGY etland Hydrology Indicators: (Explain imary Indicators (minimum of one requir _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Inundation Visible on Aerial Imagery (I _ Water-Stained Leaves (B9) eld Observations: Inface Water Present? Yes ater Table Present? Yes	Theost conceptivitions observations in Remarks, if needed.) ed: check all that apply) Aquatic Fauna (B13) Tilapia Nests (B17) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tillea Thin Muck Surface (C7) Fiddler Crab Burrows (C10) (C 37) and American Samoa) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	ing Roots (C3) 4) d Solis (C6) Suam, CNMI,	Secondar Secondar Surfa Surfa Dry-S Salt I Stunt Geon Shalk FAC-	A Loamy Soul y <u>Indicators (minimum of two required</u> ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) season Water Table (C2) Deposits (C5) ed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
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