

### NEW SITE IDENTIFICATION (NSI)

<b>Part A – NEW SITE IDENTIFICATION INFORMATION</b> <b>(To be completed by the Task Lead for New Site)</b>	
1. <b>Site Title:</b> <b>TAN/TSF Fire Station Wastewater System Discharge Drainage Ditch</b> (Use known common names, location descriptors and or processes near or associated with the suspected inactive waste site.)	<b>Site Code:</b> TAN-030
	<b>NSI Evaluation Initiation Date:</b>
2. <b>Task Lead For New Site:</b> Wendell Jolley	Phone: 526-5990
3. <b>NSI Coordinator: Wendell Jolley</b>	Phone: 526-5990
4. <b>Initiator or Initial Observer:</b> Walker F. Howell	Phone: 526-6530
5. <b>Location of the Suspected New Site:</b> (A location map and/or diagram identifying the site against controlled survey points or global positioning system descriptors may be included.) The suspect site is a drainage ditch that runs west along Nile Avenue on the Idaho National Engineering and Environmental Laboratory (INEEL) to the south/southwest of the Test Area North (TAN) Fire Station (TAN-687). This 2 foot wide by 2 foot deep drainage ditch is presumed to be impacted for approximately 150 feet. See location map in Figure 1.	
6. <b>Describe the observed conditions that indicate a suspect new site:</b> Wastewater, routinely generated from the cleaning of TAN-687 Fire Station equipment and vehicles, collects in the fire station garage floor trench and then gravity drains to an oil/water separator. The wastewater that has been separated from oil then flows through an outlet pipe and discharges at a point on the west side of a culvert into the drainage ditch running west along Nile Avenue. The wastewater consists primarily of water, dirt, and detergents.	

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**Part B – SUSPECTED NEW SITE INVESTIGATION AND RECOMMENDATION**

**(To be completed by the Task Lead for New Site, except Block 3 which is to be completed by the Responsible Manager)**

## NEW SITE IDENTIFICATION (NSI)

**1. Document all existing information including historical, process, screening data, analytical data, radiological surveys etc. (Attach supporting documentation)**

The TAN Fire Station (TAN-687), established in 1990, routinely generates wastewater from the cleaning of vehicles and equipment. An estimated 200-500 gallons of wastewater, consisting primarily of water, dirt and detergents, is processed through the TAN Fire Station Wastewater System (TAN-030) weekly. This system collects the wastewater in a trench in the floor of the garage which then drains to an oil/water separator tank in the southwest corner of the building. This system separates the oil from the water and then discharges the wastewater into a drainage ditch located in front (south) of the fire station. Discharge of the wastewater currently occurs at least once a week. This wastewater discharge process is expected to continue until closure of TAN-030 in 2020.

In 1995, regular and duplicate wastewater samples were collected from TAN-030 and analyzed (see EDF-4804 for details). No volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), herbicides, pesticides or metals were detected above regulatory levels. At the same time, a liquid and a sludge sample were collected from the oil/water separator tank. Again, no VOCs, SVOCs, herbicides, pesticides or metals above regulatory levels were found. Additionally, the wash water was evaluated for gross alpha/beta and gamma spectrometry. See Table 1 below for the results. Since all samples were below the gross beta background of 31.7 pCi/g for soil at the INEEL, neither organics nor radionuclides are considered to be a concern at this site.

Table 1: Radionuclide Analysis Results (pCi/L) for TAN Fire Station Wastewater System

	Sample Number 6795011	Sample Number 6795011
Gross alpha	<15 pCi/g below detection limit (BDL)	<14 pCi/g (BDL)
Gross beta	<8.6 pCi/g (BDL)	10.6 +/- 3.0 pCi/g
Gamma spec.	None detected	None detected

Rice 1995

Samples from the TAN-030 drainage ditch were collected and analyzed in spring 2003 (PLN-1261) to determine if contaminants may be accumulating in the soil due to wastewater discharge. Soil samples were collected at three locations: (1) the discharge point, (2) 10 ft from the discharge point and (3) 20 ft from the discharge point. At each location, two samples were collected at various depths and analyzed for total metals. The soil sample metals analysis results are shown in Table 2 below.

Table 2: Metals Analysis Results (mg/kg) for TAN Fire Station Wastewater System Ditch Soils

Contaminant of Potential Concern	Number of Detections	Maximum Nondetect	Minimum Detection	Maximum Detection
Antimony	0	0.92	—	—
Arsenic	18	—	2.5	9.5
Barium	18	—	43.2	234
Beryllium	0	1.1	—	—
Cadmium	0	1	—	—
Chromium	18	—	8.7	32.9
Cobalt	10	5.2	8	9.7
Copper	8	27.3	28.1	31
Lead	18	—	6.8	21.4
Mercury	3	0.02	0.02	0.03
Nickel	18	—	8.8	40.8
Selenium	9	0.36	0.36	1.1
Silver	0	0.91	—	—
Thallium	0	0.91	—	—
Tin	18	—	2.5	3.7
Vanadium	18	—	8.5	87.3
Zinc	18	—	61.5	165

Human health and ecological risk evaluations for the metals detected within the drainage ditch were performed during May 2004 (EDF-4804). Concentrations of contaminants of potential concern higher than the INEEL background levels were compared to EPA preliminary remediation goals for the human health risk assessment. The contaminants of potential concern were also evaluated for risks to ecological receptors using the approach described in Appendix F of the Comprehensive Remedial Investigation/ Feasibility Study for Waste Area Groups 6 and 10 Operable Unit 10-04 (DOE-ID 2001). Unacceptable risk to ecological receptors equals concentrations greater than a hazard quotient of >10. None were found. In summary, both assessments provided results indicating current soil concentrations as well as potential soil concentrations in 17 years will not present a risk to human health or ecological receptors. Contaminant levels should remain below risk levels until the site is closed in 2020. To ensure that future soil concentrations have been accurately evaluated, soil samples should be analyzed upon site closure.

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1a. Is the site SWMU as defined in OSWER DIRECTIVE 9502.00-6?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>2. Recommendation</b>		
<input type="checkbox"/> Recommend not including as a new FFA/CO site. This site DOES NOT warrant further investigation, does not meet the criteria for acceptance, and should not be included under FFA/CO Action Plan.		
<input checked="" type="checkbox"/> Recommend including as new FFA/CO site. This site DOES meet the criteria for acceptance, may warrant further investigation, and should be included under FFA/CO Action Plan.		
Recommended WAG and Operable Unit to which site should be assigned:		
WAG: 10	Operable Unit: OU 10-08	
Recommended further action for this site:		
<input checked="" type="checkbox"/> No Action <input type="checkbox"/> No Further Action <input type="checkbox"/> Track 1 <input type="checkbox"/> Track 2 <input type="checkbox"/> RI/FS		
4 Responsible Manager Certification: I have examined the information submitted in this document and believe the information to be true, accurate, and complete.		
Name: <u>Michael Hodel</u>	Signature: <u><i>Michael P. Hodel</i></u>	Date: <u>5-27-04</u>

### NEW SITE IDENTIFICATION (NSI)

#### PART C – INEEL FFA/CO WAG MANAGERS CONCURRENCE

Site Title: \_\_\_\_\_

Site Code: \_\_\_\_\_

DOE-ID WAG Manager Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Explanation:

NA

EPA WAG Manager Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Explanation:

NA

State of Idaho  
WAG Manager Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Explanation:

NA

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### NEW SITE IDENTIFICATION (NSI)

#### PART D - INEEL FFA/CO RESPONSIBLE PROGRAM MANAGERS (RPM'S) CONCURRENCE

Site Title: TAN/TSF Fire Station Wastewater System Discharge Drainage Ditch	Site Code: TAN-030
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DOE-IB FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Explanation:

EPA FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: [Signature] Date: 12-7-04

Explanation:

EPA agrees this site meets the definition of a No action site under CERCLA.

State of Idaho FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: [Signature] Date: August 13 2004

Explanation:

The State concurs that TAN-030 is a No Action site and the site should be included in the FFA/CO. The concentrations of metals found in the ditch do not currently pose an unacceptable risk although the projected accumulation of metals, primarily arsenic, could pose an unacceptable risk in the future. The projected accumulation suggests the concentrations should be acceptable for 17 years. Upon closure of the facility and as recommended, soil samples shall be collected and analyzed to ensure the site does not pose an unacceptable risk to human health or the environment.

The State does take exception to several of the arguments posed regarding background concentrations of metals in soils found on the INEEL. However, these exceptions will not be discussed further for this NSI because the risk levels are acceptable.

### NEW SITE IDENTIFICATION (NSI)

#### PART D - INEEL FFA/CO RESPONSIBLE PROGRAM MANAGERS (RPM'S) CONCURRENCE

Site Title: TAN/TSF Fire Station Wastewater System  
Discharge Drainage Ditch

Site Code: TAN-030

DOE-ID FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: Nathleen E Hair Date: 1/31/05

Explanation:  
*Risk assessment will be reviewed in 2020 if the building is not removed. When the building is removed a final review will be conducted to confirm assumptions in risk modeling.*

EPA FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Explanation:

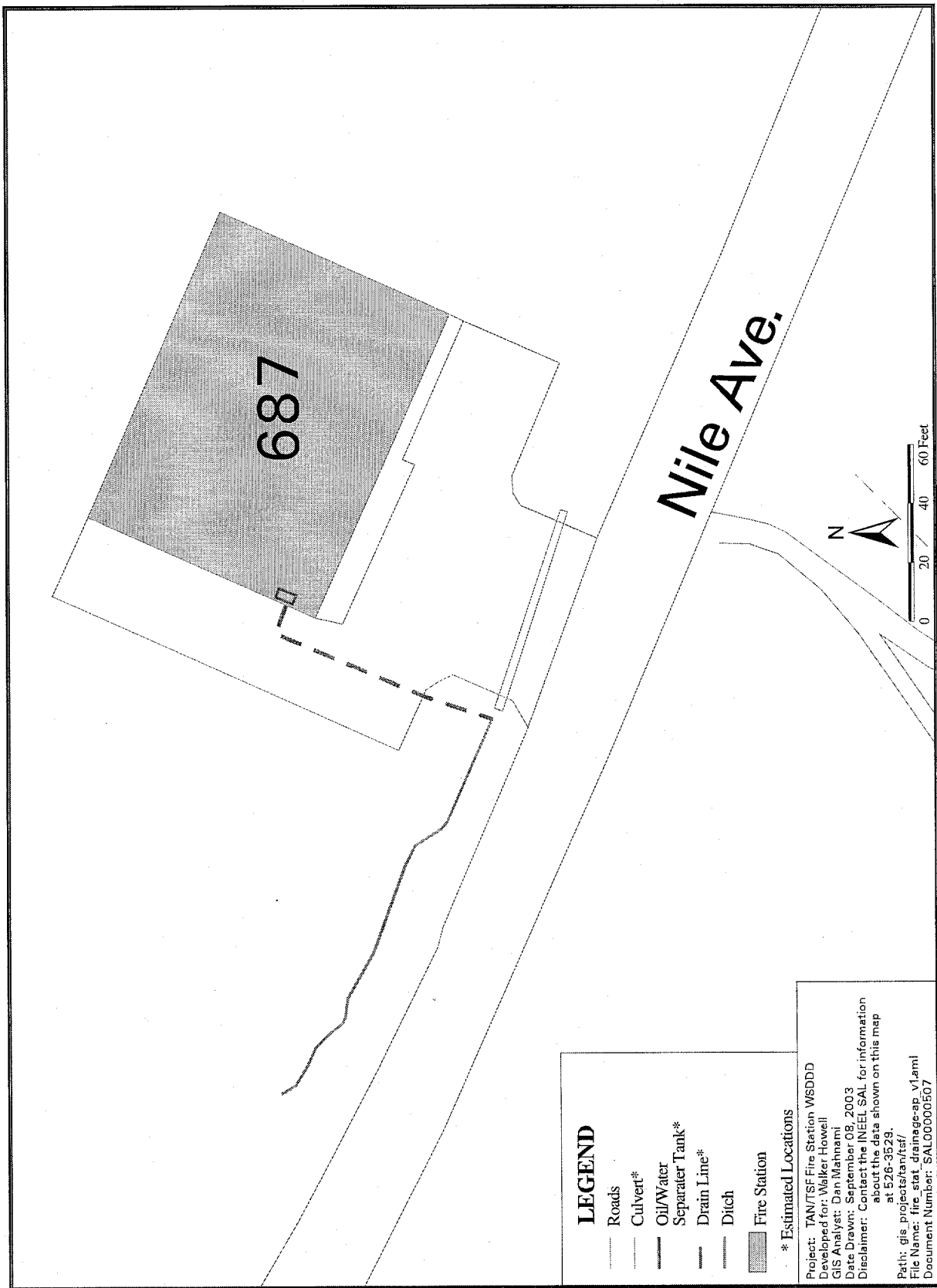
State of Idaho FFA/CO RPM Concurrence:  Concur with recommendation.  Do not concur with the recommendation.

Signature: Daryl J. [Signature] Date: August 13 2004

Explanation:

The State concurs that TAN-030 is a No Action site and the site should be included in the FFA/CO. The concentrations of metals found in the ditch do not currently pose an unacceptable risk although the projected accumulation of metals, primarily arsenic, could pose an unacceptable risk in the future. The projected accumulation suggests the concentrations should be acceptable for 17 years. Upon closure of the facility and as recommended, soil samples shall be collected and analyzed to ensure the site does not pose an unacceptable risk to human health or the environment.

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**LEGEND**

- Roads
- Culvert\*
- Oil/Water Separator Tank\*
- Drain Line\*
- Ditch
- Fire Station

\* Estimated Locations

Project: TAN/TSF Fire Station WSDDD  
 Developed for: Walker Howell  
 GIS Analyst: Dan Mahnam  
 Date Drawn: September 08, 2003  
 Disclaimer: Contact the INEEL SAL for information about the data shown on this map at 526-3529.  
 Path: gis\_projects\tan\tsf\  
 File Name: fire\_stat\_drainage-ap v1.mxd  
 Document Number: SAL00000507