# UST Removal Report **Tonasket Public School District #404**

AUG 2 2 1995

June 1995

Prepared for:

Tonasket Public School #404

District Office P.O. Box 468

Tonasket, Washington 98855

(509) 486-2126

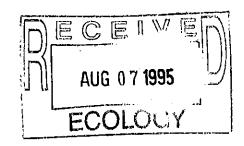
Prepared by:

Bison Environmental Resources, Inc.

S. 107 Cedar

Spokane, Washington 99204

(509) 624-4341



Authored by:

R, David Enos, R.P.G.

Project Manager, Bison Environmental Resources Inc.

Reviewed by:

lun Johns

Date: 7/25/95

Donald J. Hurst, R.P.G.

President, Bison Environmental Resources Inc.

#### **Executive Summary**

During the week of May 8, 1995, four underground storage tanks (USTs) were removed at the Tonasket School District (TSD) campus located in Tonasket, Washington. During this project, one 10,000 gallon fuel oil UST (UST #1), one 300 gallon fuel oil UST (UST #2), one 500 gallon gasoline UST (UST #3), and one 1,000 gallon gasoline UST (UST #4) were removed (note that UST numbers 1, 2, 3, and 4 in this report correspond to Washington State Department of Ecology UST numbers 3, 4, 2, and 1 respectively). CEcon Corporation (CEcon), of Tacoma, Washington, performed tank removal services. Bison Environmental Resources, Inc. (Bison), of Spokane, Washington, performed environmental monitoring and contractor oversight services.

UST #1 and UST #2 were located east of the school campus boiler room. UST #2 was located approximately 2 feet from the south end of UST #1, with it's long axis perpendicular to UST #1's long axis. UST #3 and UST #4 were located between bus garages at the school district's bus storage and maintenance facility. Both of these tanks were installed end-to-end in a single excavation.

During removal, Bison collected soil samples from around the boundaries of each tank excavation for both field and laboratory analysis. Results of analyses indicated that UST #1, UST #2, and UST #4 leaked. UST #1 appeared to have leaked from a vent line fitting near the south end of the UST. UST #2 was found to have several seam holes located at the bottom of the tank, although direct evidence of release into soils was obscured by the larger UST #1 release. UST #4 appeared to have leaked at the tank's distribution line fitting.

During removal, limited over-excavation was performed in an attempt to remediate impacted soil at all three release sites. Excavation was stopped when it became apparent that the integrity of nearby building structures were threatened if over-excavation continued. Results of samples obtained at the limit of over-excavation boundaries indicates that remediation is incomplete.

Approximately 220 cubic yards of petroleum contaminated soil was excavated during UST removal and remediation. This soil was accepted for disposal and transferred to Waste Management's Wenatchee Regional Landfill in Wenatchee, Washington. The USTs were cleaned and were transferred to Dave Deifenbach of Omak, Washington for recycling. Sludges generated during UST cleaning were transferred to TRIMAC/CleanCare Corporation in Federal Way, Washington for energy recovery.

Additional investigation is required to determine threat to human health and the environment from UST #1, UST #2, and UST #4 releases. Bison recommends one soil boring be installed near the former south end of UST #1 to assess maximum vertical extent of both the UST #1 and UST #2 releases. In addition, one soil boring should be installed at the location of the former UST #4 tank middle to assess maximum vertical extent of the UST #4 release. If groundwater is found to be impacted by either release, groundwater monitoring wells may be necessary to define extent of groundwater impact.



# Table of Contents

Section		Page
1.0 Introduction		1
2.0 Site Setting		1
3.1 UST #1 an 3.2 UST #3	d UST #2	5 7
4.0 Waste Disposal		. 10
5.0 Soil Sampling Pro	cedure:	. 12
6.0 Field Analysis Pro	cedure	. 12
7.0 Conclusions		. 12
8.0 Recommendations	·	. 13
	List of Tables	
Table 2. UST #3 Soil 3 Table 3. UST #4 Soil 3	UST #2 Soil Sample Results	8 9
	List of Figures	
Figure 2. Boiler Room	n Map I USTs Site Plan, Sample Location Map USTs Site Plan, Sample Location Map	3
	List of Appendices	
Appendix A Appendix B Appendix C Appendix D Appendix E	Underground Storage Tank Closure/Site Assessment Not Laboratory Repo Soil Disposal Recei UST Cleaning and Disposal, UST Sludge Disposal Documentat Waste Management/Bison Disposal Quantity Comparison Ta	orts ipts ion



#### 1.0 Introduction

In 1994, the Tonasket School District (TSD) retained Bison Environmental Resources, Inc. (Bison) to partially assess and eventually remove four underground storage tanks (USTs) from TSD's school campus in Tonasket, Washington. These USTs include one 10,000 gallon fuel oil UST (UST #1), one 300 gallon fuel oil UST (UST #2), one 500 gallon gasoline UST (UST #3), and one 1,000 gallon gasoline UST (UST #4). Note that UST numbers 1, 2, 3, and 4 in this report correspond to Washington State Department of Ecology UST numbers 3, 4, 2, and 1 respectively in the Underground Storage Tank Closure/Site Assessment Notice submitted to Ecology. See Appendix A for copy of the Underground Storage Tank Closure/Site Assessment Notice. Please refer to Figure 1, Site Location Map.

UST #1 and UST #2 were located east of the school campus boiler room. UST #2 was located approximately 2 feet from the south end of UST #1, with it's long axis perpendicular to UST #1's long axis.

UST #3 and UST #4 were located between bus garages at the school district's bus storage and maintenance facility. Both of these tanks were installed end-to-end in a single excavation. Please refer to Figures 2 and 3 for UST locations.

During the summer of 1994, Bison performed a limited preliminary assessment to characterize environmental impact from a reported overfill release from UST #1 that occurred prior to 1991. During this assessment, a series of test pits were installed adjacent to the UST and soil samples were collected. Results confirmed that a release had occurred. In addition, a bioremediation treatability study was performed to determine the potential of bioremediation as a treatment option for impacted soils from the UST #1 release. Treatability study results indicated that bioremediation was not a viable option for soil treatment. These results were communicated to TSD during fall of 1994.

During the week of May 8, 1995, USTs #1 through #4 were removed by CEcon Corporation of Tacoma, Washington. During removal, Bison performed environmental monitoring and contractor oversight. This report has been prepared to document UST removal activities and environmental monitoring results.

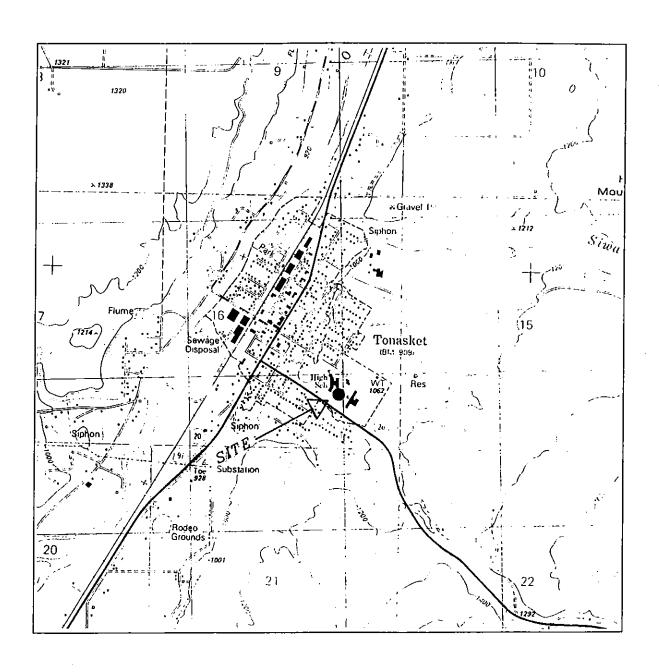
#### 2.0 Site Setting

The Tonasket School District campus is located approximately 1/2 mile east of downtown Tonasket on the north side of Highway 20, in the southeast 1/4 of Section 16, Township 37 N, Range 27 E. The ground surface elevation at UST #1 and #2 is approximately 1,025 ft. The ground surface elevation at UST #3 and #4 is approximately 990 ft.

Soils underlying the site are Cordillerian Ice Sheet glacial drift deposits. Thickness of drift deposits below the site was not determined during this investigation, although thickness is probably greater than 120 ft.







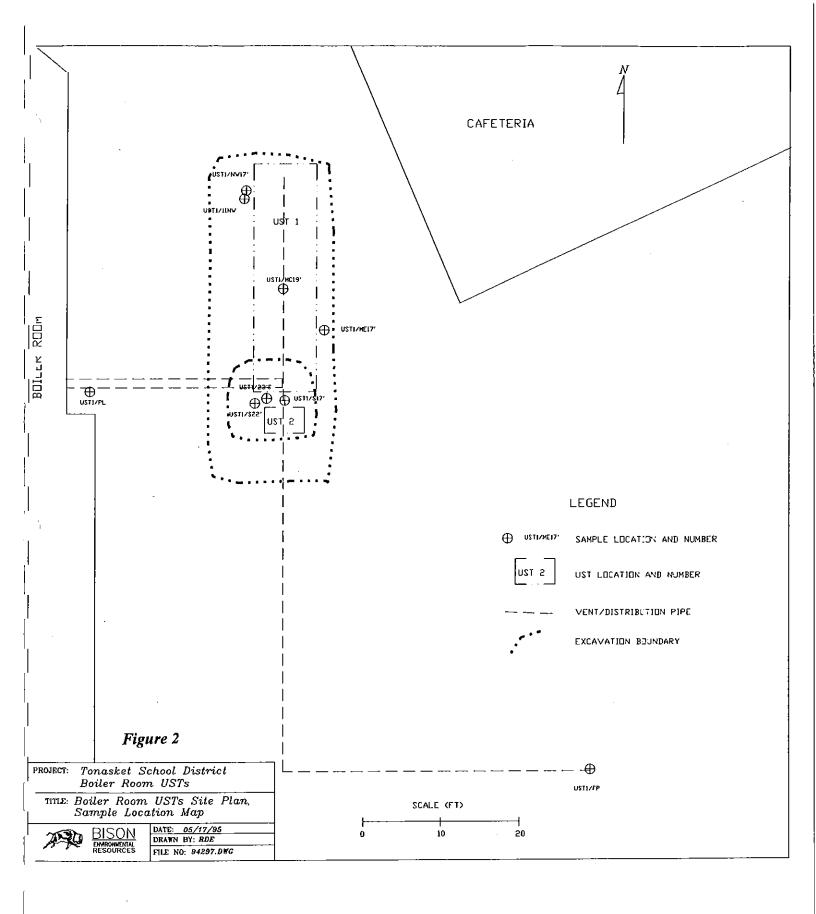


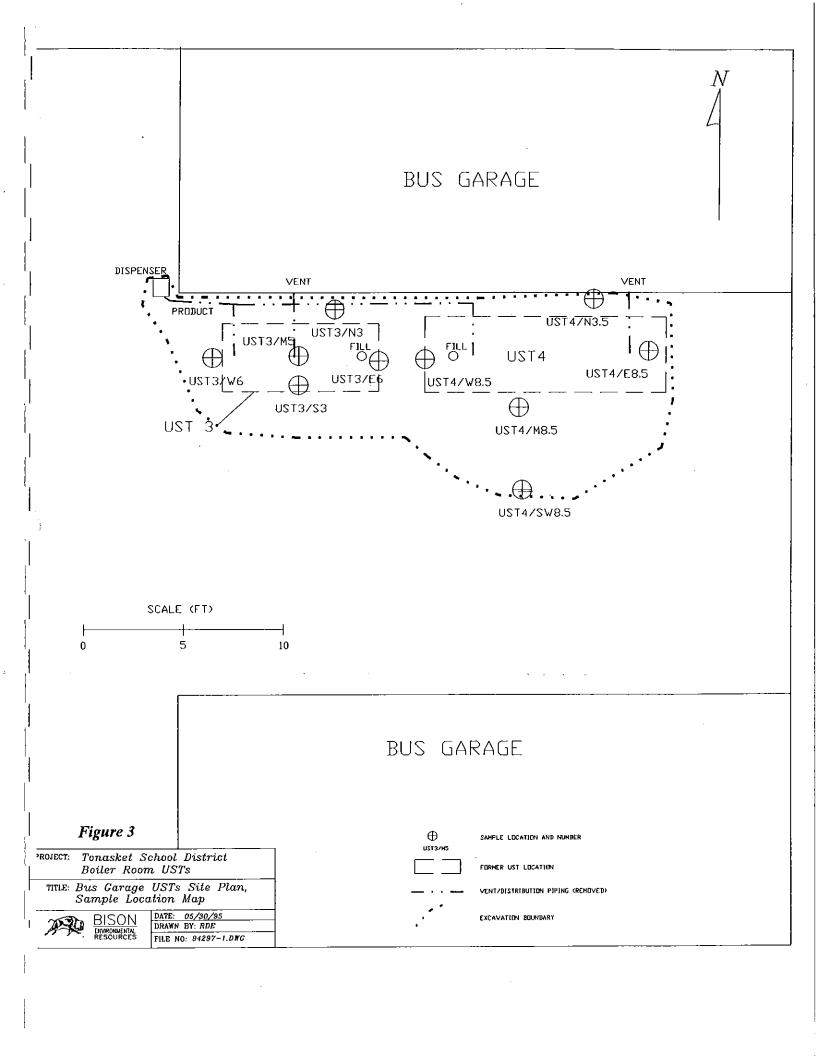
TONASKET SCHOOL DISTRICT UST REMOVAL PROJECT



BISON ENVIRONMENTAL RESOURCES

Figure 1. Site Location Map





Exact depth to groundwater below the site is unknown. The Okanogan River is located approximately 1 mile northwest of the site at an elevation of approximately 880 ft. Bonaparte creek is located approximately 1/3 mile southwest of the site at an elevation of approximately 950 ft. If groundwater elevation is similar to Bonaparte Creek elevation, groundwater can be assumed to be between 40 ft below UST #3 and #4 site, and 75 ft below UST #1 and UST #2 site.

During the UST removal project, the Tonasket School campus was undergoing major renovation and school was in session. These factors limited size and operation of equipment used during the UST removal project.

#### 3.0 UST Removal and Assessment

#### 3.1 UST #1 and UST #2

UST #1, a 10,000 gallon fuel oil UST, was removed on May 11, 1995. This UST stored P.S. 300 fuel oil until 1991, at which time the UST was converted to store #2 fuel oil. On May 9, 1995 UST #2, a small 300 gallon #2 fuel oil starter tank associated with UST #1, was removed. Both USTs were used to operate the Tonasket School campus boiler and were located approximately 20 ft east of the boiler room. UST #2 was situated approximately 2 ft from the southern end of UST #1. See Figure 2 for layout of these USTs.

Prior to tank removal, contaminated soil was removed from above and adjacent to the USTs. This near surface contamination is thought to be a result of over-fill events that occurred during historic tank refueling.

Upon removal, no holes were found in UST #1. However, UST #2 did have several holes at the seam of one end. Following removal, contamination was found by field analysis to be greatest near the south end of UST #1 and near UST #2. See Section 6.0 for description of field analysis procedures. Because the contamination appeared to be primarily heavy-end hydrocarbons, and based upon information supplied by TSD, this leak is thought to be due to a poorly sealed vent line on UST #1 that was repaired several years ago, about the time the tank was converted from storing P.S. 200 to #2 fuel oil. Contamination from UST #2 leakage was not observed during removal, although leakage may have been obscured by the larger P.S. 200 leak.

An attempt was made excavate contaminated soil below the south end of UST #1 and below UST #2 using field analysis indicators. Due to limitations of space, adjacent structures, and on-site remedial equipment, excavation was stopped at approximately 24 ft below ground surface (approximately 6 ft below UST #1 bottom) prior to reaching the vertical limit of the contaminant plume. Soil samples were obtained at the boundaries of the UST excavation for both field and laboratory analysis. Soil samples were not obtained along the northeast sidewall of the UST excavation since the northeast sidewall and the cafeteria building near the east sidewall were very unstable following tank removal. See Section 5.0 for description of sampling procedures. See Appendix B for soil analysis laboratory reports. The following table



summarizes laboratory analysis of samples collected during removal and partial remediation of UST #1 and #2.

Table 1
UST #1 and UST #2 Soil Sample Results

Sample Number	Location	WTPH-D EXT	Results in PPM	MTCA Cleanup
<u> </u>				
UST1/11NW	UST #1, west sidewall,	Diesel range:	90	Level 200
	north comer at 11 ft bgs	Heavy oil range:	234	
UST1/NW17	UST #1, west sidewall,	Diesel range:	< 10	200
	north corner at 17 ft bgs (below sample UST1/11NW)	Heavy oil range:	< 25	
UST1/S17'	UST #1 and UST #2	Diesel range:	< 10	200
	between UST #1 and UST 2 at 17 ft bgs	Heavy oil range:	< 25	
UST1/ME17'	UST #1, middle of east	Diesel range:	< 10	200
	sidewall at 17 ft bgs	Heavy oil range:	< 25	
UST1/MC19'	UST #1, below middle of	Diesel range:	15	200
	tank at 19 ft bgs	Heavy oil range:	42	
UST1/S22'	UST #1 and UST #2, below	Diesel range:	14,000	200
	south end of UST #1 at 22 ft bgs	Heavy oil range:	18,000	
UST1/23'S	UST #1 and UST #2, below	Diesel range:	6,800	200
	south end of UST #1 at 24 ft bgs <sup>1</sup> at the limit of remedial excavation.	Heavy oil range:	7,100	
UST1/FP	UST #1, below fill port at 7	Diesel range:	< 10	200
	ft bgs	Heavy oil range:	< 25	
UST1/PL	UST #1, below vent,	Diesel range:	< 10	200
	product, and recirculation pipe	Heavy oil range:	< 25	

Notes: bgs: below ground surface

Cleanup level exceedances shown in bold type

1 Sample UST1/23'S was obtained at 24 ft bgs



Results indicate that concentration of hydrocarbons attenuates fairly rapidly with depth. The sample collected at 22 ft bgs has a total hydrocarbon concentration of 32,000 ppm. A sample collected two feet deeper at 24 ft bgs has a concentration of 13,900 ppm. Assuming this attenuation rate is constant, concentration will drop 57% every 2 ft and contamination can be expected to drop below cleanup level by 35 ft bgs. However, other factors, such as hydrogeological, geochemical, sampling methodology, etc., can influence real or perceived attenuation rate.

Therefore, we conclude further investigation is necessary to assess the threat to human health and the environment from this release. We recommend at least one soil boring be installed directly through the deepest area of known contamination to determine maximum vertical extent of contamination. This soil boring should extend to 15 ft below maximum extent of contamination as determined by field analysis. Soil samples should be obtained and analyzed for both diesel and heavy oil range hydrocarbon concentration. If groundwater is encountered, the soil boring should be constructed as a monitoring well. Additional monitoring wells may be necessary to define downgradient plume extent.

#### 3.2 UST #3

UST #3 was removed concurrent with UST #4 on May 9, 1995. UST #3 was a 500 gallon gasoline tank located between bus garages at the Tonasket School District's bus storage and maintenance facility. Gasoline from this UST was distributed through a pipe that was plumbed in series with UST #4 to a suction pump dispenser located near the west end of the tank. See Figure 3 for layout of UST #3.

During removal, UST #3 was in good condition with no holes or fitting leakage. Less than 3 yds<sup>3</sup> of overfill related contaminated soil was removed during UST #3 removal. Soil samples were collected from the perimeter of the tank excavation and were analyzed by both field and laboratory analysis. Field analysis was performed as indicated in Section 6.0. Samples for laboratory analysis were submitted for total gasoline petroleum hydrocarbon, BTEX, and lead analyses. See Figure 3 for UST #3 sample locations. See Appendix B for soil analysis laboratory reports. The following table summarizes results of these analyses:



Table 2
UST #3 Soil Sample Results

Sample Number	Location	Results in PPM		MTCA Cleanup
UST3/W5	UST #3, west sidewall at	WTPH-G	< 1.0	100
	3 ft bgs	benzene	< 0.05	0.50
		toluene	< 0.05	40.0
	· ·	ethylbenzene	< 0.05	20.0
	1	xylenes	< 0.10	20.0
		total lead	< 10	500
UST3/N3	UST #3, north sidewall	WTPH-G	1.2	100
	and below UST 4	benzene	< 0.05	0.50
	distribution pipes at 3 ft	toluene	< 0.05	40.0
	bgs	ethylbenzene	< 0.05	20.0
		xylenes	< 0.10	20.0
		total lead	11	500
UST3/M5	UST #3, below middle of	WTPH-G	< 1.0	100
	tank at 5 ft bgs	benzene	< 0.05	0.50
	1	toluene	< 0.05	40.0
		ethylbenzene	< 0.05	20.0
	1	xylenes	< 0.10	20.0
	!	total lead	< 10	500
UST3/S3	UST #3, south sidewall	WTPH <b>-</b> G	1.60	100
	at 3 ft bgs	benzene	< 0.05	0.50
		toluene	< 0.05	40.0
	1	ethylbenzene	< 0.05	20.0
	1	xylenes	< 0.10	20.0
		total lead	< 10	500
UST3/E6	UST #3, below east end	WTPH-G	2.9	100
	of tank at 6 ft bgs	benzene	< 0.05	0.50
		toluene	< 0.05	40.0
	1	ethylbenzene	< 0.05	20.0
	İ	xylenes	< 0.10	20.0
	1	total lead	44	500

Results indicate that UST #3 did not leak. Therefore, no further action is required at the UST #3 site.

#### 3.3 UST #4

UST #4 was removed concurrent with UST #3 on May 9, 1995. UST #4 was a 1,000 gallon gasoline tank located between bus garages at the Tonasket School District's bus storage and maintenance facility. Gasoline from this UST was distributed through a pipe that was plumbed in series with UST #3 to a suction pump dispenser located near the west end of UST #3. See Figure 3 for layout of UST #4.



Upon removal, UST #4 was in good condition with no holes, although evidence of leakage from the distribution pipe was discovered based upon field analysis of soil samples obtained from the top of the tank. See Section 6.0 for description of field analysis. Evidence of leakage was further supported by a school district employee's recollection of having to prime the suction pump prior to use. Limited remediation by over-excavation was performed based upon field analysis. Further excavation ceased when it became apparent that structural integrity of the nearby bus garage was at risk. Soil samples were collected from the perimeter of the tank excavation and were submitted for total gasoline petroleum hydrocarbon, BTEX, and lead analysis. See Figure 3 for UST #4 sample locations. See Appendix B for soil analysis laboratory reports. The following table summarizes results of these analyses:

Table 3
UST #4 Soil Sample Results

Sample Number	Location		in PPM	MTCA Cleanup Level
UST4/M8.5	UST 4, below middle of	WTPH-D	4,000	200
	tank at 8.5 ft bgs	WTPH-G	2,600	100
	1	benzene	< 0.05	0.50
	1	toluene	< 0.05	40.0
		ethylbenzene	< 0.05	20.0
	1	xylenes	< 0.10	20.0
	-	total lead	< 10	500
UST4/SW8.5	UST 4, below southeast	WTPH-G	7.6	100
	corner of tank at 8.5 ft	benzene	< 0.05	0.50
	bgs	toluene	< 0.05	40.0
	-	ethylbenzene	< 0.05	20.0
		xylenes	< 0.10	20.0
		total lead	< 10	500
UST4/W8.5	UST 4, below west end	WTPH-G	19	100
	of tank at 8.5 ft bgs	benzene	< 0.05	0.50
		toluene	< 0.05	40.0
	1	ethylbenzene	< 0.05	20.0
	1	xylenes	< 0.10	20.0
		total lead	< 10	500
UST4/E8	UST 4, below east end of	WTPH-G	4.8	100
	tank at 8 ft bgs	benzene	0.060	0.50
	1	toluene	0.44	40.0
		ethylbenzene	0.09	20.0
		xylenes	< 0.10	20.0
UST4/N3,5	UST 4, north sidewall at	WTPH-G	1.4	100
	3.5 ft bgs	benzene	< 0.05	0.5
		toluene	< 0.05	40
		ethylbenzene	< 0.05	20
	· 1	xylenes	< 0.1	20

Note: Cleanup level exceedances shown in bold type



Results indicate that contamination is still present at concentrations above cleanup levels below the middle of UST #4 at depths greater than 8.5 ft bgs. Vertical limit of contamination is currently unknown although laboratory analysis indicates that the horizontal limit of contamination is confined to an area of less than approximately 10 ft in diameter.

Results also indicated that the contaminant detected in UST4/M8.5 was not fully quantified by gasoline range hydrocarbon analysis. Therefore, diesel range hydrocarbon analysis was also performed. The chemical indication of diesel range petroleum hydrocarbons may be the result of gasoline weathering or leakage from the tank during a period of diesel storage. Review of other analysis data indicated that diesel range hydrocarbons were present in other samples, although at concentrations below cleanup level.

To assess threat to human health and the environment, we recommend at least one soil boring be installed through the area of known contamination characterized by sample UST4/M8.5. This soil boring should be installed to a depth approximately 15 ft below maximum vertical extent of contamination as determined through field analysis performed during drilling. Samples should be obtained and analyzed for gasoline and diesel range petroleum hydrocarbons to confirm vertical extent of contamination. If groundwater is encountered, the soil boring should be constructed as a monitoring well. Additional monitoring wells may be necessary to define downgradient plume extent.

### 4.0 Waste Disposal

During removal of USTs #1 through #4, impacted soil was stored in a covered, lined on-site stockpile pending acceptance for disposal. Approximately 180 yds<sup>3</sup> of impacted soil was excavated during UST #1 and UST #2 removal and partial remediation. Approximately 40 yds<sup>3</sup> of impacted soil was excavated during UST #3 and UST #4 removal and partial remediation. Both soil piles were sampled for disposal profiling. See Appendix B for soil analysis laboratory reports. See Table 4 for summary of profile sampling.



Table 4
Disposal Sampling Results

Sample Number	Location	Results	Results in PPM	
BB-SP-1	UST 3 and UST 4 soil	WTPH-G	41	100
	stockpiles	benzene	< 0.05	0.5
	1	toluene	0.06	40
	<u> </u>	ethylbenzene	< 0.5	20
		xylenes	< 10	20
		TCLP lead	< 0.50	
BB-SP-B	UST 3 and UST 4 soil	WTPH-G	67	100
	stockpiles	benzene	<0.05	0.5
		toluene	< 0.05	40
		ethylbenzene	< 0.05	20
		xylenes	< 0.10	20
		TCLP lead	< 0.50	i
BB-SP-C	UST 3 and UST 4 soil	WTPH-G	307	100
	stockpiles	benzene	< 0.05	0.5
		toluene	< 0.05	40
		ethylbenzene	< 0.05	20
		xylenes	0.34	20
	_	TCLP lead	< 0.50	
BR-SP-A BR-SP-B	UST 1 and UST 2 soil stockpiles	WTPH 418.1	208	200
BR-SP-C				1
Composite		<u></u>	<u> </u>	

All petroleum contaminated soil (PCS) was accepted for disposal at Waste Management's Greater Wenatchee Regional Landfill located in Wenatchee, Washington. Soil was transported off-site for disposal on May 17th through 20th, 1995. Please see Appendix C for soil disposal receipts. Disposal receipts show a greater volume of soil than was actually disposed. This discrepancy is due to differences between the disposal facility and Bison in the method used to estimate volume between the disposal facility and Bison. The disposal facility roughly calculated PCS volume by measuring dimensions of soil contained within trucks used to transfer soil. Bison calculated volume by measuring the density of the excavated PCS, which was compared to the net weight of each PCS truck load. All reference to soil volumes in this and future reports will use Bison's calculated soil volume. Appendix E presents a comparison between Waste Management's and Bison's estimated volume. Please see Appendix B for laboratory determination of soil density.

All four USTs were inerted, cleaned and were accepted by Dave Deifenbach of Omak, Washington for recycling. 850 gallons of tank cleaning wastes were accepted by and transferred to TRIMAC/CleanCare Corp. in Federal Way, Washington for energy recovery. Wastes were transported by CEcon in a vacuum truck under profile #59228-00. Please see Appendix D for UST cleaning and disposal and sludge disposal documentation.



#### 5.0 Soil Sampling Procedure

Soil samples were obtained by grab sampling directly from the desired soil sampling location or from backhoe bucket soil collected at the desired sampling location. A new plastic disposable spoon was used to obtain samples from either undisturbed sidewall soil or from the relatively undisturbed soil at the middle of the backhoe bucket near the teeth. Samples for laboratory analysis were deposited into labeled borosilicate glass sample containers, packaged on ice, and hand or common carrier delivered to North Creek Analytical in Spokane, Washington for analysis. Soil samples for field analysis were obtained from the remaining soil and were analyzed using the method described in Section 6.0.

#### 6.0 Field Analysis Procedure

During both remedial and investigative activities, soil samples were analyzed by visual inspection, headspace, odor, and sheen to qualitatively determine limits of plume. Visual inspection was performed by looking at the soil and examining for evidence of hydrocarbon contamination, such as color, cohesiveness, and wetness. Headspace analysis was performed by placing soil samples into a one-quart plastic bag, kneading to expose maximum soil surface to the air in the bag, and measuring the trapped air with a Microtip photoionization detector (PID). The odor test consisted of smelling the soil for the presence of hydrocarbon-like odors. The sheen test was performed by placing a small quantity of soil into a new, disposable plastic picnic bowl that contained water and visually inspecting for a "telltale" rainbow-colored sheen.

If any of the field analyses were positive, remediation or investigation was continued until the limit of contamination was indicated by field methods. Once the limit appeared to be defined in an area, confirmation samples for laboratory analysis were obtained. If excavation ceased prior to reaching limit of contamination, soil samples were obtained to determine concentration at remedial boundary.

#### 7.0 Conclusions

During removal, UST #1, UST #2 and UST #4 were found to have released hydrocarbons into the environment. UST #3 is not believed to have leaked.

UST #1 and UST #2 releases coalesced into one contaminant plume. This plume extends from about 25 ft below ground surface to an unknown depth at a location approximately 28 ft due east from the southeast corner of the Tonasket High School boiler room. Contaminant at this location is primarily a heavy oil range hydrocarbon.

UST #4 release contaminant plume extends from about 8.5 ft below ground surface at a location approximately 12 ft east and 7 ft south of the southwest corner of the north bus garage. Maximum depth of contaminant plume is unknown. Contaminant at this location is primarily a heavy gasoline/light diesel range hydrocarbon.



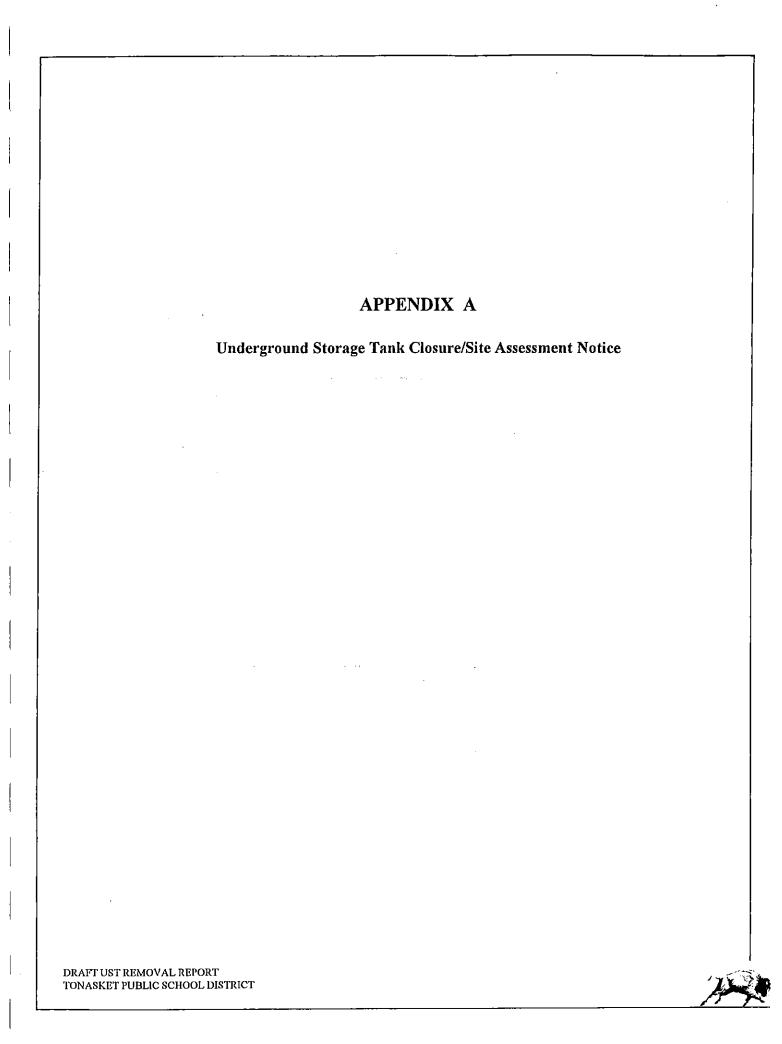
#### 8.0 Recommendations

Information collected during tank removal was not sufficient to determine threat to human health and the environment as required by Washington State Department of Ecology's Model Toxics Control Act (MTCA) regulations. To define current threat to human health and the environment, the maximum vertical of extent of contamination at both sites needs to identified. If groundwater is impacted by either release, extent of groundwater contamination also requires definition.

At the UST #1 and UST #2 location, Bison recommends that at least one soil boring be installed directly through the deepest area of known contamination to determine maximum vertical extent of contamination. This soil boring should extend to 15 ft below maximum extent of contamination as determined by field analysis. Soil samples should be obtained and analyzed for both diesel and heavy oil range hydrocarbon concentration. If groundwater is encountered, the soil boring should be constructed as a monitoring well. Additional monitoring wells may be necessary to define downgradient plume extent.

At the UST #4 location, Bison recommends that at least one soil boring be installed directly through the deepest area of known contamination to determine maximum vertical extent of contamination. This soil boring should extend to 15 ft below maximum extent of contamination as determined by field analysis. Soil samples should be obtained and analyzed for both gasoline and diesel range hydrocarbon concentration. If groundwater is encountered, the soil boring should also be constructed as a monitoring well. Additional monitoring wells may be necessary to define downgradient plume extent.





272-1334 PHGE 2 1 40007039 005694 619 P02

JUN 14 195 89:10

BIRON ENU, RES.



i c o l ' 6 ' 9 ' y	TEMPORARY/PER  and SITE ASSESS  See back of form	STORAGE TANK MANENT CLOSUR MENT NOTICE I for instructions propriate box(ee)  Permanent Tank Closure		Site Assessment/
She ID Number (on	rivolos or avallable from Es	Mining If the least a see section.		
She/Business Norms	: Tongsket see	ool District # 40	4)) <u> </u>	
	chasket ****	The graph of the g		(509) 486-2126
<u></u>				98855
# 1 # 0	Otosura Data 5/9/95	Tánk Capeally /OOO Gal	GAS	
<del>73</del>	5/9/95 5/11/95	10,000 Gal	GAS	
74	5/9/95	250-41	PIESEL.	· · · · · · · · · · · · · · · · · · ·
		DE C	071995	Check unknown if no obvious contemporation was observed and sample results have not yet been received from arrelytical tab.
UST Chron/Operator:	5 5 6	Roady Haras	LOGY	
Owners digrature:			(308) 486-212.	>
Address:	P.O. Bax 468 Toposket		W	9 <b>885</b> 5
The same of	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Licensed Supprvisor:	FRANK FO	1018		002085 00/68
Supervisors Signature:	FA for	03 POPTLAUD	AUE. P.U.	Box (6)4
	TACOMA		WS.	98501
Telephone; ()				EF-018)
Name of Megistered 810 A	Re David	GNOS, BISON E	nvironmental R	exames Em.
Address	Spokune	KW.	WA:	99204
	1 (2)		Philip	20-04

TOY MAN



# UNDERGROUND STORAGE TANK

Owner	For Office Use Only # 1000000000000000000000000000000000000
Site #_	0051094

Please The appropriate box	Site #(\)	V2090-
E C O L O G Y Intent to Install	Intent to Close	Both
SITE INFORMATION:	to Close	<u></u>
Site ID Number (on invoice or available from Ecology if the tank is re	egistered): # 005694	/
Site/Business Name: Towasket School District		
Site Address: P.O. Box 468		erator (509) 486 - 2/26
Tomasket	w/A	
City	State	98855 21 - Coo.
TANK INFORMATION: TANKS TO BE This section to be filled out ONLY if tanks are being removed Tank ID Projected Tank Substance Date	T	NKS TO BE INSTALLED this section to be filled out ONLY
Closure Capacity Stored tank Date last used	Is there If no; product in date tank the tank? was (yes/no) pumped	if tanks are being installed ank ID Approx. Install Date
# 1 5/3/95 1,000 G dicselfors 1992	onk	
# 2 - 55/3/45 500 G diesel/ 995 1992		
1911 the state of the control of the	No 7994	
# 4 5/10/95 2506 diesel =1994	None of House	
The state of the s	3 3 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
	<u>,, er det wit 1929 er 25 (b.) </u>	
	A Michigan Company	<del></del>
A Company of the Comp	Lawrence Control of the Control of t	
TANK INSTALLATION TO BE PERFORMED BY (if I	This section to be filled o	out ONLY if lanks are being
	installed	
Service Provider.	_Contact Name;	
Telephone: ()		
Address:		
Street	, P.O. 80x	
City	State	ZIP-Code
TANK PERMANENT CLOSURE TO BE PERFORME	D BY (if known): This section are being	on to be filled out ONLY if tanks
Service Provider: BISTN SINVICON MENTO RESERVED	(Assessment only) Co	intractor to be hird
Contact Name: DEVID G NOS (egg 4 Williams		
Telephone: (509) 624-4341, (509) 577-7907	Zune soussie Arts.	Office and Springer Till
Address: 107 5: Gdor 5+		
Sonkane	: WAT	99204
his form will be returned to this address	Hade to State of Section 1995 to 1995	ZIP-Code
IST OWNER/ IPERATOR		
IAILING	<del></del>	
DDRESSStreet	——	
City State ZJP-Code	Once validated by Ecologitemporary permit for the ta	y, this form serves as your anks listed above.

Please type or print information

ECY 020-33

# APPENDIX B **Laboratory Reports** DRAFT UST REMOVAL REPORT TONASKET PUBLIC SCHOOL DISTRICT



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Project Name:

Tonasket School District UST

Client Project #:

None Given

NCA Project #:

\$505022

Received: N

May 11, 1995

Reported: May 12-25, 1995

#### **PROJECT SUMMARY PAGE**

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
\$505022-01,2,3 composite	BR-SP-3,2,1 composite	Soil	5/10/95
S505022-04	BB-SP-A	Soil	5/10/95
\$505022-05	BB-SP-B	Soil	5/10/95
\$505022-06	BB-SP-C	Soil	5/10/95
\$505022-07.	UST-3/W5	Soil	5/10/95
S505022-08	UST3/M5	Soil	5/10/95
S505022-09	UST4/M8.5	Soil ·	5/9/95
S505022-10	UST4/SW8.5	Soil	5/9/95
S505022-11	UST3/S3	Soil	5/9/95
S505022-12	UST4/W8.5	. Soil	5/9/95
S505022-13	UST3/E6	Soll	5/9/95

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

(509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Project Name: Client Project #:

Tonasket School District UST

None Given

NCA Project #:

S505022

Received: May 11, 1995

Reported: May 12-25, 1995

#### PROJECT SUMMARY PAGE

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
\$505022-14	UST-1/AANW	Soil	5/9/95
S505022-15	UST-3/N3	Soil	5/9/95

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Blson Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Sample Matrix:

Tonasket School District UST Client Project ID:

First Sample #:

S505022-01

Received: May 11, 1995

Reported: May 12-25, 1995

#### **TOTAL SOLIDS & MOISTURE CONTENT REPORT**

Sample Number	Sample Description	Total Solids %	Moisture Content %
\$505022-01,2,3 composite	BR-\$P-3,2,1 composite	91	9.0
\$505022-04	BB-SP-A	92	8.0
\$505022-05	BB-SP-B	91	9.0
\$505022-06	BB-SP-C	94	6.0
S505022-07	UST-3/W5	92	8.0
S505022-08	UST3/M5	94	6.0
S505022-09	UST4/M8.5	94	6.0
\$505022-10	UST4/SW8.5	95	5.0
\$505022-11	UST3/S3	94	6.0
S505022-12	UST4/W8.5	93	7.0
S505022-13	UST3/E6	89	11

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis. To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID:

Sample Matrix:

Tonasket School District UST

Soil

First Sample #:

\$505022-14

Received:

May 11, 1995

Reported: May 12-25, 1995

#### **TOTAL SOLIDS & MOISTURE CONTENT REPORT**

Sample Number	Sample Description	Total Solids %	Moisture Content %
\$505022-14	UST-1/AANW	92	8.0
S505022-15	UST-3/N3	94	6.0

To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager

505022.BIS <4>



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405.S.W. Nimbus Avenue • Beaverton, OR 97008-7132. (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID:

Sample Matrix:

First Sample #:

Soil

Tonasket School District UST

Sampled: Received:

May 9/10, 1995 May 11, 1995

Analysis Method:

WTPH-G \$505022-04 Analyzed: May 11-12, 1995

Reported: May 12, 1995

#### TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
S505022-04	BB-SP-A	41 G-2	S-2
S505022-05	BB-SP-B	67 G-2	<b>\$-2</b>
\$505022-06	BB-SP-C	307 G-2	S-2
BLK50512B	Method Blank	N.D.	110

**Reporting Limits** 

1.0

4-Bromofluorobenzene surrogate recovery control limits are 50 - 150 %.

Volatile Total Petroleum Hydrocarbons are quantitated as Gasoline Range Organics (toluene - dodecane).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc. Please Note:

G-2 = The chromatogram for this sample does not resemble a typical gasoline pattern.

Please refer to the sample chromatogram.

S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference

from coeluting organic compounds present in the sample.

505022.BIC

Laboratory Manager



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID:

Sample Matrix: Analysis Method:

First Sample #:

Tonasket School District UST Soil

WTPH-G S505022-07

Sampled: Received:

May 9/10, 1995 May 11, 1995

Analyzed: May 12,15,1995

Reported: May 25, 1995

#### TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE

Sample Number	Sample Description	Sample Resuit mg/kg (ppm)	Surrogate Recovery %
S505022-07	UST-3/W5	N.D.	95
\$505022-08	UST3/M5	N.D.	110
\$505022-09	UST4/M8.5	2,600 G-2	S-2
S505022-10	UST4/SW8.5	7.6	100
S505022-11	UST3/S3	1.6	110
S505022-12	UST4/W8.5	19	93
S505022-13	UST3/E6	2.9	78
S505022-15	UST-3/N3	1.2	84
BLK50515B	Method Blank	N.D.	100

Reporting Limits
------------------

1.0

4-Bromofluorobenzene surrogate recovery control limits are 50 - 150 %.

Volatile Total Petroleum Hydrocarbons are quantitated as Gasoline Range Organics (toluene - dodecane).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

#### NORTH CREEK ANALYTICAL Inc. Please Note:

Laboratory Manager

G-2 = The chromatogram for this sample does not resemble a typical gasoline pattern.

Please refer to the sample chromatogram.

S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample. 505022.BIG -<6>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil Analysis Method: WTPH-G

Units: mg/kg (ppm)

Analyst:

G. Holte

Analyzed:

May 11, 1995

Reported: May 12, 1995

#### HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT** 

**Laboratory Control Sample** 

PRECISION ASSESSMENT Sample Duplicate

Gasoline Range Hydrocarbons

Spike Conc. Added:

2.00

Gasoline

Sample

Number: \$505022-04

Spike

Result:

2.20

Original

Result: 41.2

%

Recovery:

110

Duplicate

Result:

63.0

**Upper Control** 

Limit %:

118

Relative

% Difference

41.8

**Lower Control** 

Limit %:

47

Maximum

RPD:

62

NORTH CREEK ANALYTICAL Inc.

Spike Result Spike Concentration Added x 100

Original Result - Duplicate Result

x 100

Relative % Difference:

(Original Result + Duplicate Result) / 2

505022.BIS <7>

Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: WTPH-G

Units: mg/kg (ppm)

Analyst:

G. Holte

Analyzed:

May 15, 1995

Reported:

May 25, 1995

#### HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Gasoline

PRECISION ASSESSMENT Sample Duplicate

Gasoline Range Hydrocarbons

Spike Conc.

Added:

2.00

Sample

Number: \$505022-15

Spike

Result:

2.26

Original

Result:

N.D.

Recovery:

113

Duplicate

Result:

N.D.

Upper Control

Limit %:

118

Relative Relative Percent Difference values are not % Difference reported at sample concentration levels

less than 10 times the Detection Limit.

**Lower Control** 

Limit %:

47

Maximum

RPD:

62

NORTH CREEK ANALYTICAL Inc.

% Recovery:

Spike Result Spike Concentration Added x 100

Original Result - Duplicate Result

x 100

Relative % Difference:

(Original Result + Duplicate Result) / 2

505022.BIS < 8>

Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992

(509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID:

First Sample #:

Tonasket School District UST

Sampled:

May 9/10, 1995 Received:

Sample Matrix: Analysis Method:

Soil EPA 8020

Analyzed:

May 11, 1995 May 11, 1995

\$505022-04

Reported:

May 12, 1995

#### **BTEX DISTINCTION**

Sample Number	Sample Description	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethy! Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)	Surrogate Recovery %
S505022-04	BB-SP-A	N.D.	0.060	N.D.	N.D.	96
S505022-05	BB-SP-B	N.D.	N.D.	N.D.	N.D.	S-2
\$505022-06	8B-SP-C	N.D.	N.D.	N.D.	0.34	99
BLK50512B	Method Blank	N.D.	N.D.	N.D.	N.D.	82

Reporting Limits: 0.050 0.050 0.050 0.10

Analytes reported as N.D. were not detected above the stated Reporting Limit.

The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc. Please Note:

S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

.aboratory Manager

505022.BIS <9>

<sup>4-</sup>Bromofluorobenzene surrogate recovery control limits are 49 - 136 %.



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Sample Matrix:

Tonasket School District UST

Soil

Analysis Method: First Sample #:

**EPA 8020** \$505022-07

Sampled: May 9/10, 1995

Received: Analyzed:

May 11, 1995 May 12,15,1995

Reported:

May 25, 1995

#### **BTEX DISTINCTION**

Sample Number	Sample Description	<b>Benzene</b> mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)	Surrogate Recovery %
S505022-07	UST-3/W5	N.D.	N.D.	N.D.	N.D.	71
\$505022-08	UST3/M5	N.D.	N.D.	N.D.	N.D.	84
\$505022-09	UST4/M8.5	N.D.	N.D.	N.D.	N.D.	S-2
S505022-10	UST4/SW8.5	N.D.	N.D.	N.D.	N.D.	77
S505022-11	UST3/S3	N.D.	N.D.	N.D.	N.D.	83
\$505022-12	UST4/Wa.5	N.D.	N.D.	N.D.	N.D.	71
S505022-13	UST3/E6	N.D.	N.D.	N.D.	N.D.	59
S505022-15	UST-3/N3	N.D.	N.D.	N.D.	N.D.	84
BLK50515B	Method Blank	N.D.	N.D.	N.D.	N.D.	80

Reporting Limits:	0.050	0.050	0.050	0.10	

<sup>4-</sup>Bromofluorobenzene surrogate recovery control limits are 49 - 136 %. Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc. Please Note:

Scott L. Armand aboratory Manager

S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

Reporting Limit is 0.50 ppm for benzene, toluene, and ethylbenzene; and 1.00 ppm for xylenes for sample # \$505022-09

505022.BIS < 10>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: EPA 8020

Units: mg/kg (ppm)

QC Sample #: BS50511

Analyst:

G. Holte

Analyzed:

May 11, 1995

Reported: May 15, 1995

# **BLANK SPIKE QUALITY CONTROL DATA REPORT**

ANALYTE		<u>.                                      </u>	Ethyl	
L	Benzene	Toluene	Benzene	Xylenes
Cample Desuits	NE			
Sample Result:	N.D.	N.D.	N.D.	N.D.
Spike Conc.				
Added:	.50	.50	.50	1.50
Spike	÷			
Result:	0.51	0.55	0.56	1.70
Spike				
% Recovery:	102%	110%	112%	113%
Spike Dup. Result:	0.40			
nesun.	0.43	0.50	0.50	1.53
Spike				
Duplicate				
% Recovery:	86%	100%	100%	102%
Upper Control				•
Limit %:	108	111	123	122
Lower Control				
Limit %:	62	68	71	72
Relative				
% Difference:	17.0%	9.1%	10.7%	11.1%
	•			
Maximum RPD:	14	13	16	15
MORTH ORDER ANA		10	10	15

NORTH CREEK ANALYTICAL Inc. 1% Recovery:

Spike Result - Sample Result

x 100

Spike Conc. Added

aboratory Manager

Relative % Difference:

Spike Result - Spike Dup. Result (Spike Result + Spike Dup. Result) / 2

x 100

505022.BI\$ <11>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: EPA 8020

Units: mg/kg (ppm)

QC Sample #: \$505022-15

Analyst:

G. Holte

Analyzed:

May 15, 1995

Reported: May 25, 1995

# MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	Dan	~.	Ethyl			<del>-</del>
	Benzene	Toluene	Benzene	Xylenes		
Sample Result:	N.D.	N.D.	N.D.	N.D.		
Spike Conc. Added:	0.50	0.50	0.50	1.50		
Spike Result:	0.42	0.47	0.54	1.67	·	
Spike % Recovery:	84%	94%	108%	111%		
Spike Dup. Result:	0.42	0.47	0.54	1.66		
Spike Duplicate % Recovery:	84%	94%	108%	111%		
Jpper Control Limit %:	108	111	123	, 122		
ower Control Limit %:	62	68	71	72		
Relative Difference:	0.0%	0.0%	0.0%	0.6%		
Maximum RPD:	14	13	16	15		

NORTH CREEK ANALYTICAL Inc. 1% Recovery:

Spike Result - Sample Result Spike Conc. Added

x 100

Relative % Difference:

Spike Result - Spike Dup. Result (Spike Result + Spike Dup. Result) / 2

x 100

Laboratory Manager

And 24

505022.BIS < 123



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

(509) 924-9200 • FAX 924-9290

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Sample Matrix:

Tonasket School District UST

WTPH-D Extended

Analysis Method: First Sample #: S505022-14 Sampled:

May 8, 1995

Received: May 11, 1995 Extracted:

May 15, 1995 Analyzed: May 16, 1995

Reported: May 18, 1995

#### TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE EXTENDED

Sample Number	Sample Description	Diesel Result mg/kg (ppm)	Heavy Oil Result mg/kg (ppm)	Surrogate Recovery %
S505022-14	UST-1/11NW	90	234	59
BLK50515A	Method Blank	N.D.	N.D.	120

Reporting Limit:

10

25

2-Fluoroblphenyl Surrogate Recovery Control Limits are 50 - 150%.

Extractable Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24) and Heavy Oil Range Organics (> C24).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager

505022.BIS <13>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: WTPH-D

Units: mg/kg (ppm)

Analyst:

D.Risk

Extracted:

May 15, 1995

Analyzed: Reported:

May 16, 1995 May 18, 1995

#### HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Diesel

PRECISION ASSESSMENT Sample Duplicate

Diesel Range Hydrocarbons

Spike Conc.

Added:

167

Sample

Number: \$505032-03

Spike

Result:

196

Original

Result: 1140

%

Recovery:

117

**Duplicate** 

Result:

861

Upper Control

Limit %:

125

Relative

% Difference

27.5

**Lower Control** 

Limit %:

72

Maximum

RPD:

42

NORTH CREEK ANALYTICAL Inc % Recovery:

Spike Result

x 100

Spike Concentration Added

Relative % Difference:

Original Result - Duplicate Result (Original Result + Duplicate Result) / 2 x 100

Scott L. Armand Laboratory Manager

505022.BIS < 142



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos Client Project ID:

First Sample #:

Sample Matrix: Analysis Method:

Tonasket School District UST Soil

WTPH-418.1

\$505022-01,2,3 composite

Sampled:

May 8, 1995

Received: May 11, 1995 Extracted: May 11, 1995

Analyzed: May 11, 1995

Reported: May 18, 1995

# TOTAL PETROLEUM HYDROCARBONS-OIL RANGE

Sample Number	Sample Description	Sample Result mg/kg (ppm)
\$505022-01,2,3 composite	BR-SP-3,2,1 composite	208
BLK50511A	Method Blank	N.D.

Reporting Limit:

100

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508

East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: WTPH-418.1

Units: mg/kg (ppm)

Analyst:

L. Hagel

Extracted:

May 11, 1995

Analyzed:

May 11, 1995

Reported: May 18, 1995

## HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT **Laboratory Control Sample** 

Petroleum

Oil

PRECISION ASSESSMENT Sample Duplicate

Petroleum

Oll

Spike Conc.

Added:

138

Sample 5 1

Number: \$505022-01

Spike

Result: 127 Original

Result: 208

%

Recovery: 92.0 **Duplicate** Result:

251

Upper Control

Limit %:

145

Relative

% Difference

18.7

Lower Contro!

Limit %:

67

Maximum

RPD:

40

NORTH CREEK ANALYTICAL inc.

Scott L. Armand Laboratory Manager % Recovery:

Spike Result

x 100

Spike Concentration Added

Relative % Difference:

Original Result - Duplicate Result

x 100

(Original Result + Duplicate Result) / 2

505022.BIS < 16>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID:

Tonasket School District UST

Sampled: May 10, 1995

Sample Matrix: Analysis Method:

Soil **EPA** 

Received: Digested:

May 11, 1995 May 12, 1995

First Sample #: \$505022-04

Analyzed: Reported: May 12, 1995 May 15, 1995

## METALS ANALYSIS FOR: TCLP LEAD

Sample Number	Sample Description	Reporting Limit mg/kg (ppm)	Sample Result mg/kg (ppm)
S505022-04	BB-SP-A	0.50	N.D.
S505022-05	BB-SP-B	0.50	N.D.
\$505022-06	BB-SP-C	0.50	N.D.
BLK50512A	Method Blank	0.50	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: TCLP Extract

Units: mg/L (ppm)

Analyst:

G. Holte

TCLP Ext.:

May 11, 1995

Reported: May 15, 1995

## TCLP METALS QUALITY CONTROL DATA REPORT

ANALYTE

Pb

EPA Method:

1311/7420

Date Analyzed:

May 12, 1995

ACCURACY ASSESSMENT

LCS Spike

Conc. Added:

10.0

LCS Spike

Result:

9.28

LCS Spike

% Recovery:

92.8

**Upper Control** 

Limit:

120

**Lower Control** 

Limit:

70

Matrix Spike

Sample #:

S505022-06

Matrix Spike

% Recovery:

91.3

PRECISION ASSESSMENT

Sample #:

\$505022-06

Original:

N.D.

**Duplicate:** 

N.D.

Relative %

Difference:

RPD values are not reported at sample concentration levels < 10 X the Reporting Limit.

NORTH CREEK ANALYTICAL Inc. Lab Control Sample

Conc. of L.C.S.

x 100

% Recovery:

L.C.S. Spike Conc. Added

x 100

Relative % Difference:

Original Result - Duplicate Result (Original Result + Duplicate Result) / 2

505022,BIS < 18:

Laboratory Manager



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID:

Sample Matrix: Soll Analysis Method:

First Sample #:

Tonasket School District UST

**EPA** 

S505022-07

Sampled:

May 9, 1995

Received: May 11, 1995 Digested: May 19, 1995

Analyzed: May 19, 1995 Reported: May 25, 1995

## METALS ANALYSIS FOR: TOTAL LEAD

Sample Number	Sample Description	Reporting Limit mg/kg (ppm)	Sample Result mg/kg (ppm)	
S505022-07	UST-3/W5	10	N.D.	
S505022-08	UST3/M5	10	N.D.	
\$505022-09	UST4/M8.5	10	N.D.	
\$505022-10	UST4/SW8.5	10	N.D.	
\$505022-11	U\$T3/\$3	10	N.D.	
S505022-12	UST4/W8.5	10	N.D.	
\$505022-13	UST3/E6	10 ·	44	
S505022-15	UST-3/N3	10	11	
BLK50519A	Method Blank	10	N.D.	

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Units: mg/kg (ppm)

Analyst:

G. Holte

Digested:

May 23, 1995

Reported:

May 25, 1995

## METALS QUALITY CONTROL DATA REPORT

**ANALYTE** 

Рb

**EPA Method:** Date Analyzed:

7420

May 24, 1995

ACCURACY ASSESSMENT

LCS Spike

Conc. Added:

10.0

LCS Spike

Result:

10.0

LCS Spike

% Recovery:

100

**Upper Control** 

Limit:

120

Lower Control

Limit:

70

Matrix Spike

Sample #:

S505022-15

Matrix Spike

% Recovery:

96.1

PRECISION ASSESSMENT

Sample #:

S505022-15

Original:

N.D.

**Duplicate:** 

N.D.

Relative %

Difference:

RPD values are not reported at sample concentration levels < 10 X the Reporting Limit.

NORTH CREEK ANALYTICAL Inc. Lab Control Sample

Drubt 2 ( Scott L. Armand Laboratory Manager

Conc. of L.C.S.

x 100

% Recovery:

L.C.S. Spike Conc. Added

Relative % Difference:

Original Result - Duplicate Result (Original Result + Duplicate Result) x 100

505022.BIS



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St. Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Sample Matrix:

Tonasket School District UST

Soil WTPH-D

Analysis Method: First Sample #: S505022-09 Sampled: May 9, 1995

Relogged: May 18, 1995 Extracted: May 19, 1995

Analyzed: May 19-20, 1995 Reported: May 25, 1995

## **TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE**

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
\$505022-09	UST4/M8.5	4,000 D-1	S-2
BLK50519A	Method Blank	N.D.	86

**Reporting Limit:** 

10

2-Fluorobiphenyl surrogate recovery control limits are 50 - 150 %.

Extractable Total Petroleum Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc. Please Note:

D-1: This sample appears to contain volatile gasoline range organcis.

Scott L. Armand Laboratory Manager

505022.BI\$ <213



East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

(206) 481-9200 • FAX 485-2992

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: WTPH-D

Units: mg/kg (ppm)

Analyst: D.Rlsk

Extracted: May 19, 1995

Analyzed: May 19-20, 1995 Reported: May 25, 1995

## HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Diesel

PRECISION ASSESSMENT

Sample Duplicate

Diesel Range Hydrocarbons

Spike Conc.

Added:

167

Sample

Number: \$505034-02

Spike

Result:

150

Original Result:

N.D.

Recovery:

90.1

Duplicate

Result:

N.D.

**Upper Control** 

Limit %:

125

Relative Relative Percent Difference values are not

% Difference reported at sample concentration levels

less than 10 times the Detection Limit.

**Lower Control** 

Limit %:

72

Maximum

RPD:

42

NORTH CREEK ANALYTICAL Inc

% Recovery:

Spike Result Spike Concentration Added x 100

Relative % Difference:

Original Result - Duplicate Result

x 100

Scott L. Armand Laboratory Manager

(Original Result + Duplicate Result)

505022.BIS < 22>



East 11115 Montgomery, Suite B., Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 944-2202

# CHAIN OF CUSTODY REPORT

TURNAROUND REOUEST in Business Days *	Organic & Inorganic Analyses		(Please Select One) Fuels & Hydrocarbon Analyses	[ ]	* Turnaround Requests less than standard will incur Rush Charges.	FAX RESULTS BY:	COMMENTS & NCA SAMPLE	PRESERVATIVES USED NUMBER	(1) 19703010 with 1 5975022.01			Courts by	New		KUEMA TAT 177	FIZE NON BUSH	SIAM PUES	8 K. 104 par part 1320 10	(2) DATE: 5/10/95	FIRM D. W. M. 1. (2/cz.		LANNIE FIRM: N.C.17 TIME: 945	PA
REPORT TO: DGVC ENS	13150m	BILLING TO: TSD	no. Nomber: NCA QUOTE #:		9	<i>&gt;</i>	JIN MO TO TO THE LINE	7		×		×	××	X	X	X	田 × ×	X X	DATE: 5-10-45 RECEIVED BY: LALL	TIME: 10:30 PRINT NAME: GROCE D. Bloin		PRINT NAME:	
CLIENT: BISON EXUNCON MENTAL		1	PHONE: 624-4341 FAX: 624-4358			SAMPLED BY: D. CNUS	SAMPLE IDENTIFICATION: SAMPLING MATRIX # OF	(NUMBER OR DESCRIPTION) DATE / TIME (W.S.O) CONT.	BR-5P-3 5-10-15/09:41 5 1	2 BR-SP-2 1/09:12 5 1	3. BR-SP-1 5 1-929 S 1	4. BB-SP-A 04:55 . 5 1	s. 38.59-B 09:57 1	6. BB - SP-C 09:56 / 1	1. UST-3/WS' 5-4.15/10:50 S 1	8. UST3/MS "/11:10 5 1	9. USTY / MB.S /13.50 5 1	10. UST 4/SW 8.5 /14:07 5 11	RELINQUISHED BY: [] L. L. L.	FIRM: [3:501)	nd Bh.	Che	ADDITIONAL REMARKS: ・



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Project Name: Client Project #: Tonasket School District

None Given

NCA Project #:

S505034

Received: May 15, 1995 Reported: May 23, 1995

## **PROJECT SUMMARY PAGE**

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
\$505034-01	UST1/NW17	Soil	5/11/95
S505034-02	UST1/S17'	Soil	5/11/95
S505034-03	.UST1/23'S	Soil	5/11/95
S505034-04	UST1/ME17	Soil	5/11/95
S505034-05	UST1/S22'	Soil	5/11/95
S505034-06	UST1/FP	Soil	5/12/95
S505034-07	UST4/E8	Soil ·	5/12/95
S505034-08	UST1/MC19'	Soil	5/11/95
\$505034-09	UST4/N3.5	Soil	5/12/95
S505034-10	UST1/PL	Soil	5/12/95

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos Client Project ID:

**Tonasket School District** 

Sample Matrix:

Soil

First Sample #: \$505034-01

Received:

May 15, 1995

Reported: N

May 23, 1995

## **TOTAL SOLIDS & MOISTURE CONTENT REPORT**

Sample Number	Sample Description	Total Solids %	Moisture Content %
\$505034-01	UST1/NW17'	97	3.0
S505034-02	UST1/S17'	98	2.0
S505034-03	UST1/23'S	94	6.0
S505034-04	UST1/ME17'	84	16
\$505034-05	UST1/S22'	95	5.0
S505034-06	UST1/FP	98	2.0
S505034-07	UST4/E8	94	6.0
S505034-08	UST1/MC19'	95	5.0
S505034-09	UST4/N3.5	90	10
S505034-10	UST1/PL	74	26

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis. To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Sample Matrix:

First Sample #:

Tonasket School District

Soil

Analysis Method: WTPH-G \$505034-07

Sampled: Received:

May 12, 1995 May 15, 1995

Analyzed: May 22, 1995 Reported: May 23, 1995

## TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
\$505034-07	UST4/E8	4.8	80
S505034-09	UST4/N3.5	1.4	78
BLK50522A	Method Blank	N.D.	95

**Reporting Limits** 

1.0

4-Bromofluorobenzene surrogate recovery control limits are 50 - 150 %.

Volatile Total Petroleum Hydrocarbons are quantitated as Gasoline Range Organics (toluene - dodecane).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager

505034.BIS <3>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Tonasket School District

Sample Matrix: Soil

Analysis Method: WTPH-G

Units: mg/kg (ppm)

Analyst:

G. Holte

Analyzed:

May 22, 1995

Reported:

May 23, 1995

## HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Gasoline

PRECISION ASSESSMENT

Sample Duplicate Gasoline Range

Spike Conc.

Added:

2.00

Sample

Number:

S505034-01

Hydrocarbons

Spike

Result:

2.00

Original

Result: 1.36

%

Recovery:

100

**Duplicate** 

Result:

2.72

**Upper Control** 

Limit %:

118

Relative

Relative Percent Difference values are not

% Difference reported at sample concentration levels less than 10 times the Detection Limit.

**Lower Control** 

Limit %:

47

Maximum

RPD:

62

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand

Laboratory Manager

% Recovery:

Spike Result

x 100

Spike Concentration Added

Relative % Difference:

Original Result - Duplicate Result (Original Result + Duplicate Result) / 2 x 100

505034:BI\$ <4>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources 107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Client Project ID: Sample Matrix:

First Sample #:

Tonasket School District

Soil Analysis Method: EPA 8020 S505034-07 Sampled:

May 12, 1995

Received: May 15, 1995 Analyzed: May 22, 1995

Reported: May 23, 1995

## **BTEX DISTINCTION**

Sample Number	Sample Description	Benzene mg/kg (ppm)	<b>Toluene</b> mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)	Surrogate Recovery %
S505034-07	UST4/E8	0.060	0.44	0.090	N.D.	89
S505034-09	UST4/N3.5	N.D.	N.D.	N.D.	N.D.	110
BLK5022A	Method Blank	N.D.	N.D.	N.D.	N.D.	110

.050 · 0.050 0.10	0.050	0.050	Reporting Limits:
-------------------	-------	-------	-------------------

4-Bromofluorobenzene surrogate recovery control limits are 49 - 136 %. Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(206) 481-9200 • FAX 485-2992

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Laboratory Manager

Client Project ID: Tonasket School District

Sample Matrix: Soil

Analysis Method: EPA 8020

Units: mg/kg (ppm)

QC Sample #: \$505034-09

Analyst:

G. Holte

Analyzed:

May 22, 1995

Reported: May 23, 1995

## MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	D	<b>.</b> .	Ethyl			
<u> </u>	Benzene	Toluene	Benzene	Xylenes		
0						
Sample Result:	N.D.	N.D.	N.D.	N.D.		
Spike Conc.						
Added:	0.50	0.50	0.50	1.50		
	;					
Spike						
Result:	0.54	0.48	0.48	1.47		
Spike						•
% Recovery:	108%	96%	96%	98%		
				•		
Spike Dup.						
Result:	0.52	0.45	0.46	1.38		
				•		
Spike		•				
Duplicate % Recovery:	40.40/					
76 Necovery:	104%	90%	92%	92%		
Upper Control Limit %;	108	444	400	4		
	100	111	123	122		
Lower Control						
Limit %:	62	68	71	72		
Relative	0.00/					
% Difference:	3.8%	6.5%	4.3%	6.3%		
Maximum RPD:	. 14	40	4.5			
	14	13	16	15		
ORTH CREEK ANA	LYTICAL Inc.	6 Recovery:	Spike Re	sult - Sample Result	x 100	<del></del>
		_		ike Conc. Added		
at 261	],	Relative % Difference:	Salka Dae	ult - Colles Due - Desert	100	
cott L. Armand	["		(Spike Resu	ult - Spike Dup. Result t + Spike Dup. Result) / 2	x 100	

505034.BIS < 6>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992

East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625 Attention: Dave Enos

Cllent Project ID:

Tonasket School District

Sample Matrix: Soil

Analysis Method: First Sample #:

WTPH-D Extended

S505034-01

Sampled: May 11/12, 1995

Received: May 15, 1995

Extracted: May 19, 1995

Analyzed: May 19-20, 1995 Reported: May 20, 1995

## TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE EXTENDED

Sample Number	Sample Description	Diesel Result mg/kg (ppm)	Heavy Oil Result mg/kg (ppm)	Surrogate Recovery %
\$505034-01	UST1/NW17'	N.D.	N.D.	88
\$505034-02	UST1/S17'	N.D.	N.D.	100
S505034-03	UST1/23'S	6,800	7,100	S-1
\$505034-04	UST1/ME17'	N.D.	N.D.	94
S505034-05	UST1/S22'	14,000	18,000	100
S505034-06	UST1/FP	N.D.	N.D.	86
S505034-08	UST1/MC19	15 .	42	91
S505034-10-	UST1/PL	N.D.	<b>N</b> ;D;~	83
BLK50519A	Method Blank	N.D.	N.D.	·86

Reportin	g Limit:
----------	----------

10

25

2-Fluorobiphenyl Surrogate Recovery Control Limits are 50 - 150%.

Extractable Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24) and Heavy Oil Range Organics (>C24).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc. Please Note:

S-1. The Surrogate Recovery for this sample is not available due to sample dilution required from high analyte concentration or matrix interference.

Laboratory Manager

505034.BIS < 73



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290 9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District

Sample Matrix: Soil

Analysis Method: WTPH-D

Units: mg/kg (ppm)

Analyst:

D.Risk

Extracted:

May 19, 1995

Analyzed: Reported:

May 19, 1995 May 23, 1995

## HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Diesel

PRECISION ASSESSMENT Sample Duplicate

Diesel Range

Hydrocarbons

Spike Conc.

Added:

167

Spike

Result:

150

%

Recovery:

90.1

**Upper Control** 

Limit %:

125

Lower Control Limit %:

72

Sample

Number: S504034-01

Original

Result:

N.D.

**Duplicate** 

Result:

N.D.

Relative Percent Difference values are not % Difference reported at sample concentration levels

less than 10 times the Detection Limit.

Maximum

RPD:

42

NORTH CREEK ANALYTICAL Inc[

% Recovery:

Spike Result

x 100

Spike Concentration Added

Relative % Difference:

Original Result - Duplicate Result (Original Result + Duplicate Result) / 2 x 100

Laboratory Manager

505034:BIS <8>



East 11115 Montgomery, Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992 East 11115 Montgomery, Suite B. Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290 9405 S.W. Nimbus Avenue, Beaverton. OR 97008-7132 (503) 643-9200 FAX 644-2202

## CHAIN OF CUSTODY REPORT

CLIENT: 3150			1.1.1.		
ADDRESS: 5/U7 Cedar			Across 10: 43 / 50 / 6	TURNAROUND REQUEST in Business Days *	EST in Business Days *
Spoking, WA	4		BILLING TO: 75/)	Organic & Inorganic Analyses	ganic Analyses
PHONE: 509-624-4341	1 FAX: 504-624-4358	35.64-42	<u> </u>	٦ .	ed One)
PROJECT NAME: 750 (TOW	750 (TOUTSKET SCHOOLDISTRICT)	ISTRICT )		Fuels & Hydrocarbon Analyses	urbon Analyses
PROJECT NUMBER: UNDERCONS SAMPLED BY: $D$ , $EVOS$	July of Utilities I	PROJECT	Request: (%) (L)	Lss than	andard will incur Rush Charges.
SAMPLE IDENTIFICATION:	SAMPLING MA	MATRIX # OF	7.00.40	FAX RESULTS BY:	
(NUMBER OR DESCRIPTION)	DATE / TIME (W	(W.S.O) CONT.		COMMENIS	NCA SAMPLE
1. USTI/NW171	5-11-5/13.05	_	X	PRESERVATIVES USED	NUMBER
1.7551/517	05.30/5-11-5	_	X		SS-05034-01
3.05/1/23'5	5 20:51/5-11.5	_	X		20-
4. (25/11/19E 171	5-11-5/13.15	/ /	X		(3)
5.05T1/5 AZ	5 1h+//S-11.5	_	×		7.7
6. UST 1/FP	5-12-5/19.11	5 /	X		s:7-
1.USTY/E8	5-12-5/15.08 5		X		70.
8.USTI/MC19'	5-11-5/13.16 5		×		
9.USTY/N3.5	5 11.51/5.21-5	,	X		30
10.UST1/PC	S K-31/5/4-8		×		.0.
RELINQUISHED BY: $//\mathcal{U}$	m	<b>.</b>			. 1
PRINT NAME: DAVIS ETUUS	15 FIRM: BISDA			SEIDM: 412.	•
RELINQUISHED BY:		A		ran 6 ag 1 11211. 10 C. A.	DATE: />~
i				FIRM	TIME:
ADDITIONAL REMARKS: PLEATSC	SC CONTROL DAVE		ENOS IF HYPROCARISONS ELUTE	ELUTE OUTSIDE	Y THE STATE OF THE
INCRES OF THESE	MAKEYSIS KANGE	11			PAGE / OF /



18939 120th Avenue N.E., Suite 101 . Bothetl, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776

(206) 481-9200 • FAX 485-2992 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St. Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Sample Matrix:

Tonasket School District UST

Soil

Analysis Method: WTPH-D First Sample #: \$505022-09 Sampled:

May 9, 1995

Relogged: May 18, 1995 Extracted: May 19, 1995

Analyzed: May 19-20, 1995 Reported: May 23, 1995

## **TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE**

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
S505022-09	UST4/M8.5	4,000 D-1	<b>\$-2</b>
BLK50519A	Method Blank	N.D.	86

Reporting Limit:

10

2-Fluoroblphenyl surrogate recovery control limits are 50 - 150 %.

Extractable Total Petroleum Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24).

Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

(206) 481-9200 • FAX 485-2992

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID: Tonasket School District UST

Sample Matrix: Soil

Analysis Method: WTPH-D

Units: mg/kg (ppm)

Analyst:

D.Risk

Extracted:

May 19, 1995

Reported:

Analyzed: May 19-20, 1995 May 23, 1995

## HYDROCARBON QUALITY CONTROL DATA REPORT

**ACCURACY ASSESSMENT Laboratory Control Sample** 

Diesel

PRECISION ASSESSMENT

Sample Duplicate

Diesel Range Hydrocarbons

Spike Conc.

Added:

167

Spike

Result:

150

%

Recovery:

90.1

**Upper Control** 

Limit %:

125

**Lower Control** 

Limit %:

72

Sample

Number: \$505034-02

Original

Result:

N.D.

**Duplicate** 

Result:

N.D.

Relative Percent Difference values are not % Difference reported at sample concentration levels

less than 10 times the Detection Limit.

Maximum

RPD:

42

NORTH CREEK ANALYTICAL Inc

Laboratory Manager

% Recovery:

Spike Result

x 100

Spike Concentration Added

Relative % Difference:

Original Result - Duplicate Result

x 100

(Original Result + Duplicate Result)

505022.BI\$ <20>



1939 Vvenu , Suit Both A 981 D8 ( \$1-921 East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

## CHAIN OF CUSTODY REPORT

CLIENT: BISON ENVIROND MENTAL	RUND MENTIP	ر د	REPORT TO: DAVE ENS	e Ems	TURNAROUND REQUEST in Business Days	l' in Business Days *
ADDRESS: SIGN POLA	\ *	·	( V .	3150m	Organic & Inorganic Analyses	c Analyses
Sprame	₹ >		BILLING TO: 7 SD		10 5 3	<u>-</u> ⊠
PHONE: 624-4341	FAX: 624-4358	(-435E	NCA QUOTE #:		(Please Select One) Fuels & Hydrocarbon Analyse	One) on Analyses
PROJECT NAME: TONA SULET	TOWASKET SCHOOL DISTRICT	STRICF	Analysis , 1,		5	<u>-</u>
PROJECT NUMBER:	/57		Request: 00/00		• Turnaround Requests less than standard will incur Rush Charges.	lard will incur Rush Charges.
SAMPLED BY: D, (ENU)			(	_	FAX RESULTS BY:	
SAMPLE IDENTIFICATION:	SAMPLING	MATRIX # OF	170	1/15/40	COMMENTS &	NCA SAMPLE
(NUMBER OR DESCRIPTION)	DATE / TIME	(W,S,O) CONT.	7 77 79	>	PRESERVATIVES USED	NUMBER
1. BR-SP-3	5-10 15/09:41	<u>-</u> ~			Mendants into	10-2205055
2. BR-SP-2	N/0942	>   1			In and sin	-07
3. BR-SP-1	, 09.39	7 5				£.0-
4. BB-SP-A	25:40	7	×		Posults by	40
s. 38. SP-B	09:5ア	<u>-</u> ∽	×		S-12-95 NOW	V()
6. BB - SP-C	95:50	<i>J</i>	×			0/0
, UST-3/WS'	5-9-15/10.50	5	×		WOEMER TAF	70
8. UST3/MS	11:10	7 5	×		FOR NON RUSH	90
9 USTY / M8.5	02:51	۲ ر	×	$\otimes$	SAMPLES	60
10. UST 4 /SN 8.5	/14:07	~ ~	X X		(8) Roloy par pure	320 10
RELINQUISHED BY: $(// )$ 6.	J.		DATE: 5-10-45	RECEIVED BY: Legal		DATE: 57/12/95
PRINT NAME: DAVE EN	NOS FIRM: 3,50/J	لمور	TIME: 10:30	PRINT NAME: 6 2020 E D. L	Bloid, FIRM, D.W.M., C	FIRM D.W. Man, Ole TIME: 1030 fre.
RELINQUISHED BY: HELLINGUISHED BY	E.		DATE: 5-10-95	RECEIVED BY: ( One le	Jan	DATE: 5-1/-95
PRINT NAME: GEOLOR D. B	GEORGE P. BION FIRM! WMUCh	Much	TIME: 1030	PRINT NAME: AMILLA	LANK FIRM: NCM	TIME: 945
<b>≈</b>	FAX VREQ	さまた ~ RKQ.	S-10-95			C 40 / abya
COC Roy & 10.94						



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992 East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290

9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (

(503) 643-9200 • FAX 644-2202

Bison Environmental Resources

107 South Cedar St.

Spokane, WA 99204-0625

Attention: Dave Enos

Client Project ID:

Sample Matrix:

None Given Soil

First Sample #:

S505035-01

Received:

May 15, 1995

Reported:

May 17, 1995

## Weight per Volume Report

Sample Number	Sample Description	Weight/ Volume g/ml	
\$505035-01A	UST1 STOCKPILE	1.6	7,3574 17-6/13
S505035-01B Duplicate	UST1 STOCKPILE	1.6	= 1.35 50%

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis.

To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.

NORTH CREEK ANALYTICAL Inc.

Scott L. Armand Laboratory Manager

## APPENDIX C Soil Disposal Receipts DRAFT UST REMOVAL REPORT TONASKET PUBLIC SCHOOL DISTRICT

Customer#		<b>Vaste</b> F 95∞/ 9_∪r	Man Region	agem lal Lan (5	dfill a	of Greated Transport of Greater Section 1981	ater V nsfer S Date <u>-</u>	Vena tation	- / 7	<b>:</b>	W. sale	<b>5453</b>
Name				Ci						 Zip		/
Location	Cashie	r		Cash	7	Ų.	harge	1	1.0	ime		rd Party
Description	Total Yards	Gals	LS	nregula C RO	ompac		LS		ed Refu Compac Res		Rate	Amount
PCS.	24										,	
				,		*:					<u> </u>	
					_						-	
							-					
Driver's Signature			/C:	<u> </u>		)		hingtor harge	Refuse	Tax	4.6	
Oriver's Signature	aming	, L		ستنري	-72		-				Total	<u>L.,</u>

A Part	1 4	۶	Region	al Lan	dfill a	of Greated Area of Greated Are	sfer S	tation				5451
S974 Customer#_ 03	195979 15979	ec/c 7 Ur	7 . nit# <u>-</u> 9	227A	· + E	<u>735 </u>	Date_	5-	17		19 <u>_9</u>	5
Address				c	ity					Zip_		
Location	Cashie	r		Cash			harge		, I, c	ime	Thir	rd Party
Description	Total Yards	Gals	U LS	nregula C RO	ompa		LS	Regulate C	ompac		Rate	Amount
P.C.S.	20											
				ļ <u>-</u>							/	<u> </u>
	-							-			<del></del>	
									<u>.</u>			_
							146		D-4			
C+E TIS	20ch	m.	ے ۔	· ^	-			nington harge	reiuse	elax	4/.6	

Mi	Profile +
	397 WM

Driver's Signature\_

Waste Management of Greater Wenatchee
Regional Landfill and Transfer Station
(500) 662-4591

ame			_		<b>+</b> \.					7in		
Location Location	Cashie			Cash	<u>'y</u>	. c	harge		,T			rd Party
<del></del>	Total		U	nregulai	ed Ref	nze		Regulate		se	· · · ·	
Description	Yards	Gals	ĹŚ	RO		Comm	LS	RO		Comm	Rate	Amoun
PCS,	20					·		ļ				
\ ,				,								
M												
<del></del>			,		•	-		ļ .				
	-											
	<u> </u>		!I			!		I hington harge	Refuse	Tax	4.6	
iver's Signature	Phus	4	Sp		)		Surc	narge			Total	

PROFILE	Waste Management o Regional Landfill ar (509) 66	nd Transfer Station
Customer # 397 wmm	95 00/07 Unit # 404	Date

105454

5-18 19 95

ddress	<del></del> -			Ci	ty					_ Zip		
Location	Cashie	r		Cash		CI X	narge		ī	ime	Thi	rd Party
	Total		Ų	nregulat	ed Ref		F	Regulate	ed Refu			
Description	Yards	Gals	ĿS	RO		Comm	LŞ	RO		Comm	Rate	Amoun
FCS	20											ļ
						1		<del></del>				,
1 /	- <del> </del>				-	<del>  </del>						
TAY											•	
•												
										_	_	
				_								
						-		hington harge	Refuse	Tax	4.6	
ver's Signature.	Chuc	\$ S	Lac	سبر							Total	_

Waste Management of Greater Wenatchee Regional Landfill and Transfer Station (509) 662-4591

dress				C	ity			•		_ Zip		
Location	Cashie			Cash	T		harge			ime		rd Party
	Total				ted Ref	use		Regulate	ed Refu ompac			Ţ
Description	Yards	Gals	LS	RO	Res	Comm	LS	RO	Res	Comm	Rate	Amoun
FCS	20								]			1
				,								<del>                                     </del>
					_							
								_				
<u> </u>						L		-				}
			J									
•												
STON - EVE	·465			l		<u> </u>	Wast	nington	Refuse	Tax		
r's Signature							Surch	_			4 6	
r's Signature	7· 11	12:	<u></u>								Total	

7 PRO 597		_		ial Lar	idfill a	of Greand Tran 62-4591	nsfer S			•	10	5457
Customer# <u>A_3_</u>	25777	Ur	nit #	40	4		Date_					<u>5</u>
NameAddress	,			C	ity					Zip		
Location	Cashie			Cash			harge			ime		rd Party
Description	Total Yards	Gals	LS	nregula C RO	ompac		LS	Regulate RO	ompac		Hate -	*Amount
Pcs	76								1.00	0011111	nate	Amount
	15											
	· ·				ļ 				<u> </u>			
						·		*				
			-		-	<u>:</u>			-			
<del> </del>												
		/				<del>1</del> :		nington harge	Refuse	Тах		
Oriver's Signature	Hues	1/ 6	Me	~ برو		<del></del> -		yu			Total	

## Waste Management of Greater Wenatchee Regional Landfill and Transfer Station <sup>7</sup>

(509) 662-4591

ddressZip_										_ Zip			
Location	Cashie			Cash			harge			ime	Third Party		
<u> </u>	Total		Unregulated Refuse				<del>-</del>	Regulate C	ed Refu		<del></del>		
Description		Gals	LS	RO		Comm	LS	RO		Comm	Rate	Amoun	
FCS	15		_		{				ļ			(	
				,									
			_	<del></del>	-			· · · ·			· · ·	<del> </del>	
	<del> -</del>									-			
<del></del>								_				ļ	
												1	
rer's Signature_		71 <u> </u>	روي					nington harge	Reluse	Тах	Total		

ddress				Ci	ty	<del></del> _	<u> </u>			_Zip_		
Location	Cashie	ır		Cash	<u> </u>	CI	narge		. Т	ime		rd Party
	Total				ompac	led.			ompac	ted		
Description PCS.	Yards 15	Gals	LS	RO	Res	Comm	LS	RO	Res	Comm	Rate	Amou
Ÿ.												
<del></del> /	·	 									· · · · · · · · · · · · · · · · · · ·	
		_								-		
<u> </u>												
		1		,				nington harge	Refuse	Tax	4.6	
ver's Signature	Shur	J S	V/Lee	ارر				<b>3</b> -			Total	<u> </u>

## Waste Management of Greater Wenatchee Regional Landfill and Transfer Station

(509) 662-4591

ame <u>Ccc</u>	on.				1	<del>,</del> .				<u>.i</u>	<del>:</del>	
ddress	<del></del>			C	ity	<del></del>	•.		_ Zip_	<del>:</del>		
Location	Cashi	er	Ţ	Cash	/	Charge	:	îme	Third Party			
			U	nregula	led Refuse	3	Regulat	ed Refu	se	!	<u> </u>	
Marie de la constanta de la co	Total	<u> </u>		: c	ompacted			Compac		] {	1	
Description -	Yärds	Gals	1.5	RO	Res C	omm CS	RO	Res	Comm	Rate	'Amoun	
PCS	20	]	ĺ	}			- }		ŀ	i	:	
·					4-							
				,	1					!		
										; . j		
		A-03-1			1			,.	مير	,	7.	
•			١	-	1	-   - <del>-</del>				-		
	. ,					√ W:	shington	Refuse	Tax			
ver's Signature	1.1		<u>/</u>		<i>' '</i>	// Su	rcharge			<i>:</i>	<del> </del>	
er's Signature	ehren	ے میں	عرمد	سمتعسراب	-32 (					Total	1	

## Waste Management of Greater Wenatchee

Regional Landfill and Transfer Station (509) 662-4591

late	5-18:0 95	

195456

ess				Ci	ity				Zip				
Location	ocation Cashier			Cash		cı کر	harge Time				Third Party		
•	Total		Unregulated Refuse Compacted					Regulate	ed Refu Compac			T	
Description	Yards	Gals	LS	RO		Comm	LS	RO	Res		Rate	Amoun	
PCS	24												
								<del>                                     </del>	<u>├</u>	<del> </del>		<del> </del>	
	<del>-    </del>	<del>                                     </del>				<del> </del> -+		<del> </del>	<del>  </del>	<del> </del>		<del></del>	
		<del> </del> -	<sup> </sup>					<u> </u>		<b></b>		<u> </u>	
<u> </u>							ľ	'		1			
,												1	
	1-1					<del>+</del>		<del></del>	$\vdash$	,——		<del> </del>	
<del></del>						├──		<b></b> -'	-		<u> </u>		
	] ]	ļ	]	ļ	1	, 1	ļ	'	1 1				

•
Arofile #
397 Wmpk

## Waste Management of Greater Wenatchee Regional Landfill and Transfer Station

		,
97Wmn495001	107	(509) 662-4591

laress				Ci	ty		Zip								
Location	Cashie	r	Cash CI						Т	Third Party					
<u> </u>	Total		Unregulated Refuse Compacted				F	Regulate	ed Refu		Ţ				
Description	Yards	Gals	LS	RO		Comm	LS	RO		Comm	Rate	<u>Amoun</u>			
PCS.	15				·		-				·	<u> </u>			
												<u> </u>			
				,	-							1			
	_									1					
<u> </u>		]													
		1				-									
						<u> </u>	Wash Surch	ington l narge	Refuse	Tax	4.6				
r's Signature_A									Refuse	Тах	4.6				

Fight = 39.7 Up	= Waste Mai Regio ਅハメダラのいるフ		<b>Greater Wenatchee</b> Transfer Station · 4591	105463
Customer# 032		4/6:41	Date <u>5-/9</u>	19 <i>95</i>
Name	ন	· · · · · · · · · · · · · · · · · · ·		
Address	<del> </del>	City	Zip	

Location	Cash	er i		Cash		С	harge		37.	ime )	Th	ird Party
,	Total		U	nregula			F		ed Refu			
Description	yards	1 1	LS	RO	ompac Res		L\$	RO	Compac Res	Comm	Rate	Amount
PCS.	· 20										<del></del>	
					-							/
		<del>                                     </del>		30					<del> </del>			<del>                                     </del>
1		<del> </del>		-			_		1			<del> </del>
		<del>                                     </del>	-						<del> </del>			
										-		-
	· -	<del> </del> -								-	<del></del>	<u> </u>
,		!!	I		1		Wast Surct		Refuse	Тах	4,6	

Driver's Signature <

Waste Management of Greater Wenatchee Regional Landfill and Transfer Station

ne <i>C</i>										<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·
ress	<u> </u>			Ci	ity				-	_ Zip_	<del></del>	
Location	Cashie	r		Cash		C	Charge Time				Third Part	
	Total		Ų	nregula	ted Rei		F	Regulate	ed Refu ompac			
Description	Yards	Gals	LS	RO	Res	Comm	LS	RO	Res	Comm	Rate	Amoun
PCS	70_		<u> </u>		Í 	-					· 	
				,					<u> </u>		-	
							-				-	
	_	-										
<del></del>	<del></del>						· ·					
		1			71		( )	nington	Police			
,	t of			•				harge	Reiuse	: Iax	4.6	<u> </u>
r's Signature	Inun	4	lu	ul	سرئا-	·~^					Total	
	•	7										
<del></del>	<del></del>	· ·	<del></del>				TITAL	<del></del>				
		<i>-</i>										
		į				i			j			

397 sustomer #3	2 371	<u>'Y</u> _Ur	nit #			<u>i</u>	Date_	<u> </u>	رے نے		19	73
ame	1000	7	·			1						
ddress	ity											
Location	Cashie		Cash			narge		50	Time		hird Party	
	Total				ompac	ted			ompac	ted		· •
Description PCS,	Z C	Gals_	LS	RO	Hes	:Comm	LS	RO	Hes	Comm	Rate	Amount
	,				<u> </u>							
	_ }				-				·:			
1,-			, 44 ,									
				Q.V.	-							·
					· · ·	<u> </u>			<u> </u>			
			l		ļ	<b>[</b>					٨.	

## APPENDIX D UST Cleaning and Disposal, UST Sludge Disposal Documentation DRAFT UST REMOVAL REPORT TONASKET PUBLIC SCHOOL DISTRICT

## Northwest Marine Chemist, Inc. P.O. Box 7084

## MARINE CHEMIST CERTIFICATE SERIAL NO. ST9521

Tacoma, Washington 98407 (206) 752-0149

(200) 732-0149			
CElon Corp.	Tonaslo	et Schools	MAY 10 1995
Survey Requested by	Vessel O	wner or Agent ,	Driek Date
TANK FARM	Michigan	und Storage Tank	1 Jonus lut School
	Туре	of Vessel	Specific Location of Vessel
Fuel Oil, Gasolal, Decel	()2-b	٤L	0850 Kms
Last Three (3) Cargoes	Test	Method	Time Survey Completed
	<u> </u>		
1 10,000 0 Til	1 1st	Sala Fore 1	Voulers (Secureo)
7270000	1001	THE TOO D	volum (secures)
1.500 0 5 1 1151	20 - 500	For Hotword	<del></del>
1-500gol Tout 1117 /20	B JHFE	For Hotwork	<u>C</u>
1-1,000 gal Tule 1130 lo	2		<del></del>
1-2000 0 Tul 1145 Hel	Telos	_	
1- E/CC-GEO (MILE 1- 1- 1-3)	<u> </u>	<del></del>	· · · · · · · · · · · · · · · · · · ·
These Tanks Have be	n ourged u	i.th CO, 6 < 5	7. Orygen and set
	Access.	τ -	18
Cutton operation Compo	Idel P 1200	Hes	
		END	
	_		
		· · · · · · · · · · · · · · · · · · ·	
	- · ·		<del> </del>
In the event of any physical or atmospheric of the above spaces, or if in any doubt, immediately	hanges adversely affection	ng the STANDARD SAFETY DESI	GNATIONS assigned to any Chemist.
QUALIFICATIONS: Transfer of ballast or manipula		<del></del>	
ments subject to gas accumulation, unless specifi	cally approved in this Cer	tificate, requires inspection and o	endorsement or reissue of Certificate
for the spaces so affected. All lines, vents, heati otherwise specifically designated.	ng colls, valves, and almi	ilany enclosed appurtenances si	nali de considered "mot safe" unless
STANDARD SAFETY DESIGNATIONS (partial list, paraphra	sed from NFPA 306 Subsection	s 2-3.1 through 2-3.5, and Subsection 6	i-3.2)
SAFE FOR WORKERS: Means that in the compartment or spat in the atmosphere are within permissible concentrations; and the street of the street	ce so designated: (a) the oxygen	content of the atmosphere is at least 19.5	percent by volume; and that, (b) toxic materials
a a princip di s trattat por introducio e consciendi di del cirio e		F	

as directed on the Marine Chemist's Certificate. NOT SAFE FOR WORKERS: Means that in the compartment or space so designated, the requirements of Safe for Workers have not been met

ENTER WITH RESTRICTIONS: Means that in any compartment or space so designated, entry for work may be made only if conditions of proper protective equipment, clothing, and time are as specified.

SAFE FOR HOT WORK: Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and white maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

NOT SAFE FOR HOT WORK: Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

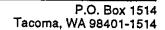
SAFE FOR REPAIR YARD ENTRY: Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated: (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

CHEMIST'S ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

The undersigned acknowledges receipt of this Certificate under Section 2-6 of NFPA 306 and inderstands conditions and limitations under which it was issued."

This Certificate is based on conditions

tendy Ofcon Corp





Environmental and Industrial Contractors

9/12/95

Dave Dufenbuch hereby agrees

to take

1 500 gallon tank 1 1000 gallon tank 1 260 gallon tank 1 10,000 gallon tank

for actop iton, from accon corp.

Stort Sensky

Done Derfenhah P.D BOX 3808 Donele WA. 98841 (509)826-0577

TANKS WERE CLEDNED BY CECON, MADE SOFE FOR HOT WORK & CUT ON S/10/95.

95-29

1703 Portland Avenue

Tacoma, WA 98421

(206) 272-8851

Environmental and industrial Contractors	Nº 01:	1 /
SHIPPER CERN/CORP / TOWASKET School DISTRICT 404  ADDRESS P.D. BOX 468 TOWASKET, WAY 98855 PHONE	01.	L <del>'4</del>
ADDRESS P.D. BOX 468 TOWASKET, WAY 98855 PHONE	<u>(509) 48</u>	62126
ORIGIN TANK CLEANING	•	·
·		
U.S. D.O.T. DESCRIPTION Including Proper Shipping Name, Hazard Class & I.D. Number	CONTAINER No. Type	QUANTITY Wt. Vol.
1993 Combustible Liquid	VAC-TRK	850 gals
3 PG III		
		-
PHYSICAL STATE (CIRCLE): SOLID LIQUID SLUDGE OTHER_ SPECIAL INSTRUCTIONS AND ADDITIONAL INFORMATION	·	·
IN THE EVENT OF A SPILL, CONTACT EITHER THE DEPARTMENT OF ECOLO THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 800-424-8802 FOR		
This is to certify that the above-named materials are properly classified, described, packa proper condition for transportation according to the applicable regulation of the U.S. Department		
SHIPPER SIGNATURE DOWN (FOR TOWNSLIET S.D.) DATE	5-10-9	<u> </u>
	2728	851_
ADDRESS 1703 Portland Ave TACOMA, WA,		
SIGNATURE Stort & Stensky		
DESTINATION CHARE JUR PHONE	62739	25
ADDRESS PO BOX 4100 TACOMA, WA.		
SIGNATURE Sect Time		

Distribution: Shipper: Goldenrod copy Transporter: Pink copy Consignee: Canary copy

(CEcon returns original to shipper)



SCHEDULED SERVICE WEEK SCHEDULED SERVICE TERRITORY

20

Ŏ1

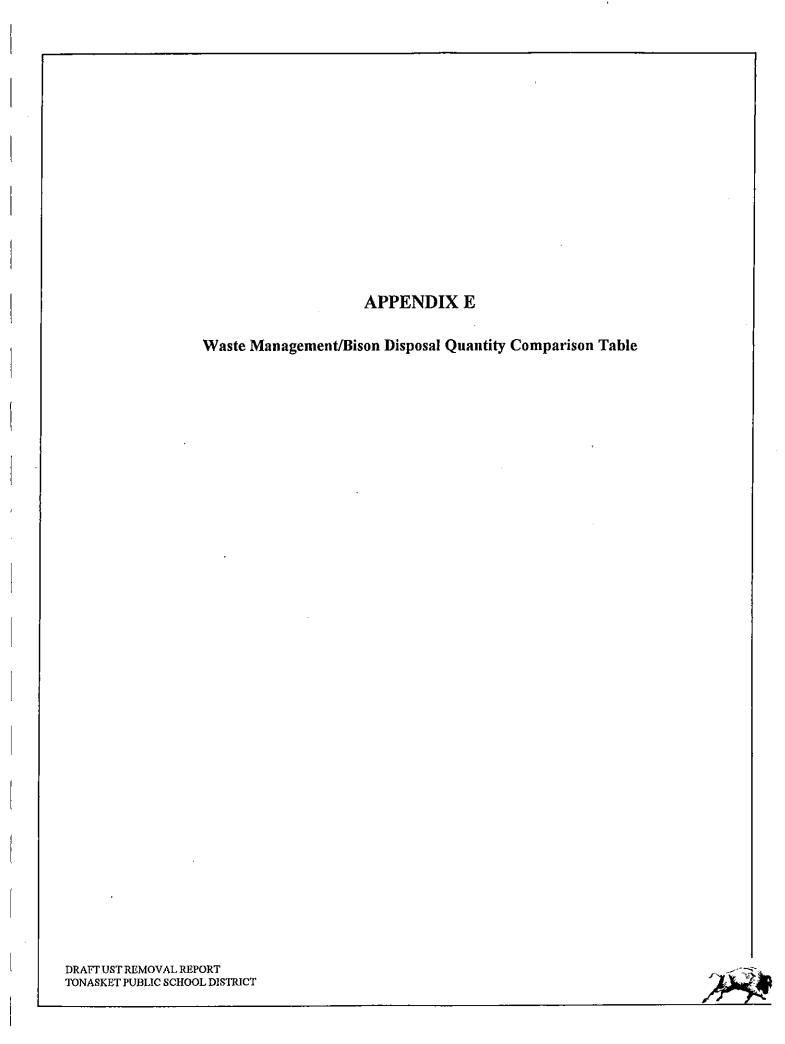
C O R P O R A T I O N REMIT TO:
P.O. Box 4100
Local (206) 627-3925 Federal Way, WA 98063
Wats 1-800-282-8128

Fage 1 of 1

Fax (206) 383-8724 INVOICE: 950101084 **BILLING ADDRESS** GENERATOR SERVICE LOCATION CECON Corportion CECON Corportion 1703 Fortland Ave 1703 Portland Ave Tacoma WA 98421 Tacoma WA 98421 WAD988498754 EPA ID# lubi # CUST # PHONE TERMS CUSTOMER P.O. NUMBER DATE DATE OF LAST SERVICE 19-may-1995 4453 (206) 272-8851 Ε 05-may-1995 CHANGE SVC. TERM MANIFEST MACHINE # / # UNITS DESCRIPTION LINE TOTAL WEEKS DOC. # INITIAL 02 Gal Water @ \$.25/gal 950101084A 25.5042 Gal Oil \$.45/gal 95010108HA 198.90 506 Gal Soild @ \$1.60/gal 950101084A 489.60 CEcon Corporation Ven# Job 75.29 Phase G/L MAY 24 '25 REP # MACHINE RENTAL & SERVICE TOTAL PRODUCT SALES SECTION QUANTITY DELIVERED UNIT OF UNIT DESCRIPTION TAXABLE TOTAL COST MEASURE COST nifest #BL 0114 EΑ Ν ofile #59228 EΑ Ν ILL PAST DUE ACCOUNTS ARE SUBJECT TO A 11/2% FINANCE CHARGE PER MONTH PRODUCT SALES TOTAL MACHINE **RENTAL & SERVICE** 714.00 NERATOR/DESIGNATED REPRESENTATIVE SIGNATURE SALES TAX RATE SALES TAX 7.90 PAYMENT RECEIVED SECTION 0.00TOTAL RECEIVED APPLY PAYMENT TO: CASH TOTAL TODAY'S SERVICE/SALE <del>714.QQ</del> **IECK NUMBER SERVICE** SVC. REQUIRED NO SVC. REQUIRED SVC. COMPLETED PREVIOUS BALANCE/REMARKS WASTE OIL PAST DUE UNDER 30 PAST DUE J CURRENT WASTE ANTIFREEZE MIXED/CONTAMINATED FUEL USED OIL FILTERS EMARKS: SOLVENT - P/W SVC 

OTHER .

V03" IF 61



## Petroleum Contaminated Soil Disposal Summary Tonasket School District **UST Removal Project**

Truck Load	Truck	Waste Management	Waste Management's	Load Net Weight	Bison's Estimated	Notes
Number	Identification	Receipt Number	Estimated Volume (cyds)	(tons)	Volume (cyds)	
1	C&E 405	105451	20	na	14.4	-
2	C&E 404	105452	20	na	14.4	H
3	DT-1	105453	24	na	16.8	7
4	C&E 404	105454	20	na	14.4	
5	C&E 405	105455	20	na	14.4	ı
9	DT-1	105456	24	na	16.8	2
<i>L</i>	C&E 404	105457	15	42250	15.6	3
8	C&E 405	105458	15	40950	15.2	3
6	DT-1	105459	20	51430	19	m
10	C&E 404	105460	15	na	15.6	4
11	C&E 405	105461	15	na	15.2	4
12	DT-1	105462	20	39440	14.6	8
13	C&E 404	105463	20	na	15.6	4
14	DT-1	105464	20	45740	16.9	m
Totals			268		218.9	

Volume estimated by taking an average of the initial net weight and the heavy net weight of load #7 and #8, and dividing by 2,700
 Ibs/cyd. Initial net weight is the loaded weight of each truck on May 18 prior to determination that the load was light, heavy net weight is the weight of the loaded trucks following loading of additional soil.

Volume estimated by averaging all known net weights for truck DT-1 and dividing by 2,700 lbs/cyd.
 Volume estimated by dividing actual net weight by 2,700 lbs/cyd.
 Volume estimated by applying May 18 known net weights for trucks C&E 404 and C&E 405 and dividing by 2,700 lbs/cyd.