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# USING ADVANCED SQL TO BUILD A HAULER PROGRAM FOR A WWTP

MICHAEL BRITTENBURG – WIMS SYSTEM ADMINISTRATOR

JACOBS SOLUTIONS

The logo for Jacobs, featuring the word "Jacobs" in a large, bold, black, sans-serif font. The letter "J" is significantly larger than the other letters. A small registered trademark symbol (®) is located at the bottom right of the letter "s". The logo is centered within a white rectangular area that is framed by a thick, dark purple border.

**Jacobs**®

# PROFESSIONAL BACKGROUND

- 9 years experience in wastewater treatment.
  - Operator
  - Operations/Facility Management
  - Regional Operations Support
  - WIMS Administrator
- 6+ years working with WIMS.
- Online SQL Course:
  - Udemy.com – The Ultimate MySQL Bootcamp: Go from SQL Beginner to Expert, by Colt Steele.

# OUR OLD HAULER DATABASE

- Unknown tech support.
- Existing reports were failing, appeared to be bugged at times.
- Could not add new reports.
- Calculation inaccuracies.

# STANDARD WIMS APPROACH TO A NEW PROGRAM

- Data tracking
  - 160 past or current hauling companies
    - Waste type
    - Gallons hauled
  - 280 municipal and industrial wastestreams
    - Price
    - Lab results: BOD, TSS, TKN, metals, etc.
- Result
  - 44,800 variables just to cover gallons of each wastestream per hauling company.
  - The total number of variables required would probably end up being 100,000+.
  - During initial testing of this approach, it would take 15+ minutes to load the variable library.

# WHAT IS SQL?

- SQL = Structured Query Language
- Utilizes a series of tables that store different categories of data.
- Each table has one or more key parameter used to link it to other tables.
- We submit queries against the database with specific criteria to pull out a dataset.
  - Show Me X  
Where DATATBL.VARID = VARDESC.VARID and  
VARDESC.NAME = 'Something'

DATATBL	VARDESC	LOCATION
AUDITUSER	AUDITUSER	AUDITUSER
AUDITTIMESTAMP	AUDITTIMESTAMP	AUDITTIMESTAMP
DATESTAMP	VARNUM	LOCID*
CURVALUE	NAME	LOCATION
TEXTVALUE	VARTYPE	DESCRIPTION
VARID*	VARID*	SITEADDRESS
STATUS	UNITS	SITESTATE
FORCED	LOCID*	SITEZIP
	...	...

# SQL-BASED APPROACH TO A NEW PROGRAM

- An alternative to a fully SQL-based approach is using Lookup Tables in conjunction with SQL.
  - System Setup > System Tables > This Facility > Lookup Tables
  - Originally used to store qualitative data (i.e. Company Name, Address, Phone Number, etc.) and can be queried using the TABLE function.
  - The shortcomings of this approach are that it lacked data security and history.
    - We were still using an Excel spreadsheet to store the qualitative data, but would copy/paste it into the Lookup Tables when data was edited.
- SQL-Structured Approach
  - Create variables to act as your table parameters.
  - Use keys to connect data categories together.
  - Heavily reliant on defining the exact data point using a combination of DATESTAMP and TEXTVALUE.
  - Reduced the total number of required variables to from 100,000+ to 112.

VarNum	Location	Var Name
50000	Load Entry	Load Entry - Hauler ID
50001	Load Entry	Load Entry - Load Number
50002	Load Entry	Load Entry - Std Waste Streams
50003	Load Entry	Load Entry - X Codes
50004	Load Entry	Load Entry - W Codes
50005	Load Entry	Load Entry - Volume
50006	Load Entry	Load Entry - Discharge Site
50007	Load Entry	Load Entry - Testing Required
50008	Load Entry	Load Entry - Comments
50009	Load Entry	Load Entry - Grease SUM
50010	Load Entry	Load Entry - Cost
50011	Load Entry	Load Entry - WRS Volume
50012	Load Entry	Load Entry - WRS Count
50013	Load Entry	Load Entry - Waste Type
50021	Load Entry	Load Entry - Costest
50032	Load Entry	Load Entry - Volume Sum
50033	Load Entry	Load Entry - Daily Load Count
50034	Load Entry	Load Entry - Broker
50035	Load Entry	Load Entry - Volume Discount
50036	Load Entry	Load Entry - Broker ID
50037	Load Entry	Load Entry - WS Code
50038	Load Entry	Load Entry - Calc Trigger

VarNum	Location	Var Name
50201	Wastestreams	WS Code
50203	Wastestreams	Generator
50205	Wastestreams	Waste Type
50207	Wastestreams	Price
50209	Wastestreams	Description
50211	Wastestreams	Testing Frequency Override
50213	Wastestreams	Broker
50215	Wastestreams	Discharge Site
50217	Wastestreams	Address
50219	Wastestreams	City
50221	Wastestreams	State
50223	Wastestreams	Zipcode
50225	Wastestreams	Facility Phone Number
50227	Wastestreams	Contact Name
50229	Wastestreams	Email 1
50231	Wastestreams	Email 2
50233	Wastestreams	Contact Phone Number
50235	Wastestreams	Generator Comments
50236	Wastestreams	Wastestream Comments
50237	Wastestreams	Active
50239	Wastestreams	SIC Code
50241	Wastestreams	Search For
50243	Wastestreams	Search By

VarNum	Location	Var Name
50251	Waste Types	Waste Type
50253	Waste Types	Description
50255	Waste Types	Effective Date
50257	Waste Types	BOD Low Limit
50259	Waste Types	BOD High Limit
50261	Waste Types	TSS Low Limit
50263	Waste Types	TSS High Limit
50265	Waste Types	Comment
50267	Waste Types	Volume Discount
50269	Waste Types	Testing Frequency

VarNum	Location	Var Name
50151	Haulers	Name
50153	Haulers	Hauler ID
50155	Haulers	Broker ID
50157	Haulers	Contact
50159	Haulers	Address
50161	Haulers	City
50163	Haulers	State
50165	Haulers	Zipcode
50167	Haulers	Email 1
50169	Haulers	Email 2
50171	Haulers	Office Phone
50173	Haulers	Cell Phone
50175	Haulers	Fax Number
50177	Haulers	Account Number
50178	Haulers	Account Number History
50179	Haulers	Comments
50181	Haulers	Active
50182	Haulers	Liability Insurance
50183	Haulers	Search For
50185	Haulers	Search By

VarNum	Location	Var Name
50100	Pricing	WS Code
50102	Pricing	Price Update
50103	Pricing	Price Update Complete

VarNum	Location	Var Name
50050	Lab Entry	Date
50051	Lab Entry	COD
50052	Lab Entry	BOD
50053	Lab Entry	TSS
50054	Lab Entry	TKN
50056	Lab Entry	Arsenic
50058	Lab Entry	Cadmium
50060	Lab Entry	Chromium
50062	Lab Entry	Copper
50064	Lab Entry	Lead
50066	Lab Entry	Mercury
50068	Lab Entry	Molybdenum
50070	Lab Entry	Nickel
50072	Lab Entry	Selenium
50074	Lab Entry	Silver
50076	Lab Entry	Zinc
50078	Lab Entry	Comments
50080	Lab Entry	Testing Required
50082	Lab Entry	Approval
50084	Lab Entry	Active
50086	Lab Entry	WS Code
50088	Lab Entry	Waste Type
50090	Lab Entry	Generator Results?

# Lehigh County Authority



## Hauler Dashboard

Entry Forms	Reports	Billing	Administration	Dashboards	Monthly Data												
<a href="#">Lab Results Entry</a>  <a href="#">Hauler Load Entry</a>  <a href="#">Hauler Load Calcs</a>	<a href="#">Pull Sheet Preview</a>  <a href="#">Annual Wastestream Report</a>  <a href="#">Annual Hauler Usage</a>  <a href="#">Annual Industrial Usage</a>  <a href="#">Wastestream Summary Report</a>  <a href="#">Hauler/Broker Summary Report</a>  <a href="#">Recap Summary Report</a>	<a href="#">Price Updates</a>  <a href="#">Invoice Comments/Balances</a>  <a href="#">Monthly Load Data Check</a>	<a href="#">Haulers</a>  <a href="#">Wastestreams</a>  <a href="#">Waste Types</a>  <a href="#">Hauler Spreadsheet</a>  <a href="#">Active Hauler Contacts List</a>		<table border="1"> <thead> <tr> <th>Month</th> <th>Jul '24</th> <th>Aug '24</th> </tr> </thead> <tbody> <tr> <td><b>Hauler Revenue</b></td> <td>\$283,788.23</td> <td>\$165,605.76</td> </tr> <tr> <td><b>Hauler Trucks</b></td> <td>1,317</td> <td>809</td> </tr> <tr> <td><b>Hauler Flow</b></td> <td>5.687</td> <td>3.529</td> </tr> </tbody> </table>	Month	Jul '24	Aug '24	<b>Hauler Revenue</b>	\$283,788.23	\$165,605.76	<b>Hauler Trucks</b>	1,317	809	<b>Hauler Flow</b>	5.687	3.529
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<b>Hauler Flow</b>	5.687	3.529															

Update costs for last 60 days with updated prices!

## Liability Insurance - Past Due and Coming Up

[Update Insurance](#)

Hauler Name	Due Date (Desc)	Email #1	Email #2
JMT Environmental Technologies, Inc.	10/24/2024		
Biros Septic & Drain Cleaning, Inc.	10/21/2024		
Venezia Transport Service, Inc	10/17/2024		
Richard R. Schmick, Inc.	10/17/2024		
Hepaco, LLC	10/17/2024		
Walters Environmental Services, Inc.	9/30/2024		
A HoneyDipper Septic Service (J. Brehm) Inc.	8/29/2024		
Environmental Service Corp. of PA	8/21/2024		
Litzenberger's Septic Service	8/11/2024		
G.T.O. Services	8/9/2024		
Ameys Clean Rite Septic	8/6/2024		
A to Z Construction, LLC	8/1/2024		
Siegfried Septic Service, LLC	7/29/2024		
Neutron Products, Inc	7/15/2024		
Eldredge, Inc.	7/15/2024		
All County Sewer & Drain Service, Inc.	7/3/2024		
Clifford Hill Sanitation Service, Inc. (Leck)	7/1/2024		
Kratzer Septic Service	7/1/2024		
ACV Environmental Services, Inc. (PowerVac)	6/30/2024		
Wind River Environmental, LLC	6/30/2024		
Dotter's Septic Services, LLC	6/29/2024		
Walter M. Strohl, LLC	6/24/2024		
Delaware Valley Septic Inspection & Repair	6/19/2024		
Barbosa Sewer & Drain, Inc.	6/15/2024		
Mannys Septic Service, LLC	6/9/2024		



[Click Here to Edit Hauler Information](#)

**Hauler Dashboard**

Active	Edit Date	Name	Hauler ID	Broker ID	Account Number	Address	City	State	Zipcode
TRUE	02/01/24	A HoneyDipper Septic Service (J. Brehm) Inc.	DY		510,107				
TRUE	02/01/24	A to Z Construction LLC	KH		510,258	107 Swift Street	Millax	PA	17053
FALSE	02/09/24	Accurate Waste Systems Inc.	FY		510,152				
TRUE	02/01/24	Ace Disposal	BL		510,262	1133 West Valley Road	Mawren	PA	19255
TRUE	02/01/24	ACV Environmental Services Inc. (PowerVac)	IC		510,204	112 Minerva Avenue	Phosco	MI	48130
FALSE	02/10/24	Aegis Resource Management		LL	510,192				
TRUE	02/01/24	All County Sewer & Drain Service Inc.	GZ		510,249	10 Brandywine	Shelburne Mt	VT	05750
TRUE	02/01/24	All Jays Portable Toilet & Septic	CW		510,076	1995 Lorene Drive	Madocade	PA	17047
TRUE	02/01/24	Allstate Septic Systems LLP	AM		510,004	167 Berry Hollow Road	Salunga	PA	16013
FALSE	02/10/24	Altemose Septic	BU		510,047	1000 West Ester Road	Salunga	PA	16053
TRUE	02/01/24	Ameys Clean Rite Septic	CO		510,067	442 W Mountain View Dr	Salunga	PA	16053
FALSE	02/10/24	Applied Water Management Inc.	EZ		510,133				
FALSE	02/10/24	Aqua Wastewater Management In	FC		510,136				
FALSE	02/10/24	Atlas Disposal Options Inc	HD		510,181				
FALSE	02/10/24	Attn Kaitlyn Howels Boston Beer		A2	510,229	100 Main Drive	Perki	PA	18031
FALSE	02/10/24	Avalanche Septic Co.	EX		510,130				
TRUE	02/01/24	B. Newhart & Sons Inc.	CU		510,074	107 Swift Street	Millax	PA	17053
TRUE	02/01/24	Baileys Septic Service Inc.	BC		510,020	101 S Neville Pk	Mill	PA	17055
FALSE	02/10/24	Barber Septic Service	FZ		510,155				
TRUE	02/02/24	Barbosa Sewer & Drain Inc.	CE		510,057	100 Interchange Road	Lehighton	PA	18235
TRUE	02/02/24	Baumans Septic Service	JT		510,244	4 Homestead Tr	Bradville	PA	17710
TRUE	02/02/24	BDR Solutions LLC (Roto Rooter)	IK		510,211	1000 Keystone Industrial Park	Phosco	MI	48130
FALSE	02/10/24	Beaver Valley Environmental LLC	IA		510,202				
TRUE	02/02/24	Berks Septic Service	JC		510,226	112 Fairview Drive	Phosco	PA	17055
TRUE	02/02/24	Bethlehem Sewerage & Excavating Service LLC	GI		510,163	107 Stein Street	Bethlehem	PA	18020

[Click Here to Edit Wastestream Information](#)

**Hauler Dashboard**

Active	Edit Date	WS Code	Generator	Broker ID	Description	Waste Type	Discharge Site	SIC Code	Facility Address	F
TRUE	01/01/24	I10C_A	Coca Cola	A1	syrup	04c	F,G: HSW			
TRUE	01/01/24	I10C_B	Coca Cola	A1	syrup	04c	F,G: HSW			
TRUE	01/01/24	I10C_C	Coca Cola	A1	syrup spill 2/23/23	04a	A: Std			
TRUE	01/01/24	I10C_D	Coca Cola	A1	pit clean-out	04a	A: Std			
TRUE	01/01/24	I20B_A	Boston Beer	A2	Carbon Tank Waste	05c	F,G: HSW			
TRUE	01/01/24	I30S_A	Ocean Spray		final juice product	04c	FEB			
TRUE	01/01/24	W001_A	A&B Stainless Valve, Inc.	XX	wash water from stainless valves	04a	A: Std			
FALSE	01/01/24	W002_A	Akros (Veltis)	SS	Sodium Nitrate washwater	04a	A: Std			
FALSE	01/01/24	W003_A	Avery Dennison		Adhesive waste water	04a	A: Std			
FALSE	01/01/24	W004_A	Coopers Creek Chemical Corporation	XX	Crude coal tar distillation water	04a	A: Std			
TRUE	01/02/24	W005_A	EPS Materials - Sherwin Williams		Water with Latex Polymers	04a	A: Std			
FALSE	01/02/24	W006_A	Johnson Matthey, Inc		metal cleaning washwater	04a	A: Std			
TRUE	01/02/24	W007_A	MacTac		Adhesive washwater	04a	A: Std			
TRUE	01/02/24	W008_A	Mauser USA, LLC		Air compressor condensate water	04a	A: Std			
TRUE	01/02/24	W009_A	United Envelope		Ink wastewater	04a	F,G: HSW			
TRUE	01/02/24	W010_A	Westrock Converting Company		Papermill wastewater	04a	A: Std			
TRUE	01/02/24	W011_A	Euclid Chemical Co.		Concrete additive washwater	04a	A: Std			
TRUE	01/02/24	W012_A	Venezia Transport, Inc.		Non-food salt/starch washwater	04a	A: Std			
FALSE	01/02/24	W013_A	Balchem		Food processing washwater	04a	A: Std			
TRUE	01/02/24	W014_A	Clifford Hill Sanitation Service Inc.		Leachate	06	A: Std			
FALSE	01/03/24	W015_A	Brenntag		Chemical Wastewater	04a	A: Std			

[Click Here to Edit Waste Type Information](#)

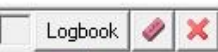
**Hauler Dashboard**

Edit Date	Waste Type	Description	Effective Date	BOD Low Limit	BOD High Limit	TSS Low Limit	TSS High Limit	Comment	Volume Discount	Testing Frequency
01/01/24	01	Holding	2/1/2018						FALSE	
01/01/24	02	Septic	2/1/2018						FALSE	
01/01/24	03a	Domestic Waste <2.5%	2/1/2018			0	25,000	< 25,000 TSS	FALSE	Annually
01/01/24	03b	Domestic Waste >2.5%	2/1/2018			25,001	30,000	20% more for every 1% TS >2.5%	FALSE	Annually
01/01/24	04a	Industrial Wastewater - Low	2/1/2018	0	10,000	0	25,000	< 25,000 TSS	TRUE	Semi-Annually
01/01/24	04b	Industrial Wastewater - Med	2/1/2018	10,001	20,000	0	25,000	< 25,000 TSS	TRUE	Semi-Annually
01/01/24	04c	Industrial Wastewater - High	2/1/2018	20,001	25,000	0	25,000	Case by Case	TRUE	Semi-Annually
01/01/24	05a	Industrial Sludges	2/1/2018	0	20,000	25,001	50,000	25000-50000	TRUE	Semi-Annually
01/01/24	05b	Industrial Sludges - High	2/1/2018	0	20,000	50,001	65,000	50001-60000	TRUE	Semi-Annually
01/01/24	05c	Industrial Sludges - Special	2/1/2018	0	20,000	65,001		Case by Case	TRUE	Semi-Annually
01/01/24	06	Misc Sewage & Septage	02/01/2018					Case by Case	FALSE	Semi-Annually
01/01/24	07	Grease Traps	02/01/2018						FALSE	
01/01/24	07a	Grease - Special	02/01/2018					Case by Case	FALSE	
01/01/24	08	Portable Toilets	02/01/2018						FALSE	
01/01/24	09	Car Wash	02/01/2018						FALSE	
01/01/24	11	Categorical - EPA Waste Types	02/01/2018					Case by Case	FALSE	Quarterly



Start Date: 08/23/2024 12:00 AM Go

Logbook



Refresh Conditional Format

A30

Save

Approve

Calc



Show Calcs

Entry Min  Daily Limit Min  Var Info   
 Max  Max  Equation

	A	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																		
2			<b>New Lab Results Entries</b>															
3			<b>Set Date Above to Desired Entry Date</b>															
4																		
5			<b>WS Code</b>	<b>Gen Results?</b>	<b>COD</b>	<b>BOD</b>	<b>TSS</b>	<b>TKN</b>	<b>Waste Type</b>	<b>Arsenic</b>	<b>Cadmium</b>	<b>Chromium</b>	<b>Copper</b>	<b>Lead</b>	<b>Mercury</b>	<b>Molybdenum</b>	<b>Nickel</b>	<b>Selenium</b>
6				▼														
7				▼														
8				▼														
9				▼														
10				▼														
11				▼														
30																		
31			<b>Show Results for the Last</b>			<b>365</b>	<b>Days</b>	<b>Or Between Dates</b>		<b>Start</b>		<b>End</b>		<b>And Search for Wastestream</b>				
32																		
34		<b>Date</b>	<b>WS Code</b>	<b>Gen Results?</b>	<b>COD</b>	<b>BOD</b>	<b>TSS</b>	<b>TKN</b>	<b>Waste Type</b>	<b>Arsenic</b>	<b>Cadmium</b>	<b>Chromium</b>	<b>Copper</b>	<b>Lead</b>	<b>Mercury</b>	<b>Molybdenum</b>	<b>Nickel</b>	<b>Selenium</b>
35		7/24/2024	W010_A						04a	<0.050	0.015	0.192	0.291	0.164	0.0025	0.08	0.204	<0.25
36		7/22/2024	W019_A						04a	<0.020	<0.002	0.061	0.512	0.033	<0.0020	<0.00	<0.020	<0.10
37		7/19/2024	w035_f						04a	0.206	0.028	0.232	3.730	0.312	<0.0020	0.05	0.281	<0.50
38		7/17/2024	W081_A		3,300	1,850	610											
39		7/16/2024	w035_h						05a	<0.020	0.039	<0.020	0.068	0.168	<0.0025	<0.00	0.094	<0.10
40		7/3/2024	W035_E		183,000	43,833	106,120	1,554	05a									
41		6/28/2024	X024		21,700	4,400	16,760	1,358	03a									
42		6/21/2024	X030		8,400	3,480	10,980	392	03a									
43		6/5/2024	W020_A		88,000	40,250	354	644	04a	<0.200	<0.020	<0.200	<0.200	0.576	<0.0017	0.08	<0.200	<1.00
44		6/4/2024	W005_A		81,900	3,000	640	574	04a	<0.500	<0.050	<0.500	<0.500	<0.500	<0.0050	<0.10	<0.500	<2.50
45		6/1/2024	W039_B		2,300	1,533	6,750	126	05a									
46		5/31/2024	W039_B						05a	<2.500	<0.250	<2.500	<2.500	<2.500	<0.0017	<0.50	<2.500	<12.50
47		5/29/2024	X043		23,000	6,533	21,200	252	03b	0.606	<0.050	<0.500	3.840	<0.500	0.0102	<0.10	<0.500	<2.50
48		5/23/2024	X157		11,800	2,350	11,200	756		<0.100	<0.010	0.123	9.340	0.112	<0.0017	0.04	0.150	<0.50

1	A	C	I	J	K	L	M	S	T	U	AC
2		CATID	Category	Description		Rates (\$/gal)					
3				BOD	TS						
5		01	Holding	-	-		\$0.045				
6		02	Septic	-	-		\$0.045				
7		03a	Domestic Waste <2.5%	-	<2.5%		\$0.04				
8		03b	Domestic Waste >2.5%	-	2.5 - 3%		\$0.04				
9		04a	Industrial Wastewater - Low	<10,000 mg/L	<2.5%		\$0.03				
10		04b	Industrial Wastewater - Med	10,001 - 20,000 mg/L	<2.5%		\$0.045				
11		04c	Industrial Wastewater - High	20,001 - 25,000 mg/L	<2.5%		Case by Case				
12		05a	Industrial Sludges	<20,000 mg/L	2.5 - 5%		\$0.065				
13		05b	Industrial Sludges - High	<20,000 mg/L	5 - 6.5%		\$0.11				
14		05c	Industrial Sludges - Special	<20,000 mg/L	>6.5%		Case by Case				
15		06	Misc Sewage & Septage	-	-		Case by Case				
16		07	Grease Traps	-	-		\$0.12				
17		07a	Grease - Special	-	-		Case by Case				
18		08	Portable Toilets	-	-		\$0.069				
19		09	Car Wash	-	-		\$0.065				
20		11	Categorical - EPA Waste Types	-	-		Case by Case				

Annual Wastestream Report 2023							
	Waste Stream Code	Gallons YTD	BOD mg/L	TSS mg/L	TKN mg/L	Current Waste Type	Suggested Waste Type
121	W060_B					04a	
122	W061_A					04a	
123	W062_A					04c	
124	W063_A	2,500	400.0	1800.0	25.0	04a	
125	W065_A	4,800	113.0	480.0	140.0	04a	
126	W066_A					04a	
127	W067_A	228,500	13000.0	52467.0	2100.0	05a	05b
128	W068_A					04a	
129	W069_A					05a	
130	W070_A					04a	
131	W071_A	41,450	12150.0	69933.0	532.0	05c	
132	W073_A	12,200	7975.0	5908.5	1792.0	04b	04a
133	W074_A					04a	
134	W075_A					04a	
135	W076_A	17,400	33000.0	7920.0	100.0	04c	04c
136	W077_A	150,415	130444.3	13220.0	350.0	04c	04c
137	W078_A	185,900	61000.0	29933.0	245.0	04c	05a
138	W079_A	15,400	14108.5	19030.0	1043.0	04b	



Start Date: 08/23/2024 12:00 AM Go

Logbook

Refresh Conditional Format

A1 Save Approve Calc Show Calcs

Entry Min  Daily Limit Min  Var Info   
 Max  Max  Equation

A C D E G H I K M N O Q R S U

1

2 **Set Report Date to Effective Date Before Making Changes** **Wastestream Price Update Form**

3	WS Code	Last		Current		New Price	WS Code	Last		Current		New Price
		Effective Date	Price	Effective Date	Price			Effective Date	Price	Effective Date	Price	
5	01	01/01/18	0.020	01/01/23	0.045		W039_D			01/01/18	0.030	
6	02			01/01/18	0.045		W039_E			07/01/24	0.030	
7	03a			01/01/18	0.040		W041_A			01/01/18	0.030	
8	03b			01/01/18	0.040		W041_B	01/01/18	0.045	03/01/24	0.100	
9	04a			01/01/18	0.030		W041_C			01/01/18	0.453	
10	04b			01/01/18	0.045		W042_A	01/01/18	0.030	02/01/24	0.065	
11	04c						W043_A			01/01/18	0.045	
12	05a			01/01/18	0.065		W044_A	01/01/18	0.304	02/01/24	0.180	
13	05b			01/01/18	0.110		W045_A			01/01/18	0.030	
14	05c						W046_A	01/01/18	0.030	02/01/24	0.045	
15	06						W047_A			01/01/18	0.030	
16	07			01/01/18	0.120		W048_A			01/01/18	0.030	
17	07a						W048_B			01/01/18	0.030	
18	08			01/01/18	0.069		W049_A			01/01/18	0.030	
19	09			01/01/18	0.065		W050_A			01/01/18	0.030	
20	11						W052_A			01/01/18	0.030	
21	I10C_A	01/01/18	0.725	01/01/22	0.725		W060_A			01/01/18	0.030	
22	I10C_B	01/01/18	0.553	01/01/22	0.553		W060_B			01/01/18	0.146	
23	I10C_C						W063_A			01/01/18	0.030	
24	I10C_D			12/18/23	0.030		W067_A	01/01/18	0.065	02/01/24	0.110	
25	I20B_A	01/01/18	0.409	01/01/22	0.409		W069_A			01/01/18	0.065	
26	I30S_A						W070_A			01/01/18	0.030	
27	W001_A	01/01/18	0.030	01/01/22	0.030		W071_A			01/01/18	0.110	
28	W005_A	01/01/18	0.030	01/01/22	0.030		W073_A	02/01/24	0.300	04/02/24	0.030	
29	W007_A	01/01/18	0.030	01/01/22	0.030		W076_A			01/01/18	0.080	
30	W008_A	01/01/18	0.030	01/01/22	0.030		W077_A	03/02/23	0.030	08/01/24	0.300	
31	W009_A	01/01/18	0.030	01/01/22	0.030		W078_A	02/01/23	0.170	02/01/24	0.220	
32	W010_A	01/01/18	0.030	01/01/22	0.030		W079_A	03/15/23	0.030	03/23/23	0.045	

Hauler Load Entry (Custom Data Entry Form)

File Edit Format Help KeyPad



Start Date: 08/06/2024 12:00 AM Go

Logbook



Refresh Conditional Format

A4 =IF(ISBLANK(max(B7:B146)),0,max(B7:B146))

Save

Approve


Calc



Show Calcs

Entry Min  Daily Limit Min  Var Info   
 Max  Max  Equation

	A	B	C	D	E	F	G	J	K	N	O
1	<b>Hauler Load Entry</b>			Date	08/06/24						
2	<b>Daily Statistics</b>										
3	<b>Number of Loads</b>	<b>Total Gallons</b>	<b>Grease Gallons</b>	<b>WRS Loads</b>	<b>WRS Gallons</b>						
4	38	164530	10700	0	0						
6	<b>Hauler ID</b>	<b>Load Number</b>	<b>WS Code (All Types)</b>	<b>Volume</b>	<b>Discharge Site</b>	<b>Testing?</b>	<b>Comments</b>	<b>Generator Name</b>	<b>Waste Type</b>	<b>Price</b>	<b>Cost</b>
7	KG	1	W021_C	6000	D			Grand Central Sanitary Landfill, Inc.	06	0.055	330.00
8	CE	2	02	5000	B			Septic	02	0.045	225.00
9	AH	3	W020_A	5500	WRS: I,J			Royal Chemical Co.	04a	0.030	165.00
10	AO	4	07	2800	C			Grease Traps	07	0.120	336.00
11	BN	5	W019_A	6300	B			Givaudan Fragrance Corp.	04a	0.030	189.00
12	AJ	6	01	2000	A			Holding	01	0.045	90.00
13	AJ	6	02	1000	A			Septic	02	0.045	45.00
14	AH	7	W029_A	4300	B			Fed Chem LLC	11	0.150	645.00
15	KG	8	W021_C	6000	D			Grand Central Sanitary Landfill, Inc.	06	0.055	330.00
16	CH	9	01	3500	B			Holding	01	0.045	157.50
17	CH	9	02	1500	B			Septic	02	0.045	67.50
18	AM	10	07	2000	C			Grease Traps	07	0.120	240.00
19	CO	11	01	750	A			Holding	01	0.045	33.75
20	CO	11	02	2250	A			Septic	02	0.045	101.25
21	AB	12	X011	4500	B			Centerport Municipal Waste Treatment Plant	03a	0.040	180.00
22	AH	13	W052_A	4500	B			Linde Gas & Equipment, Inc.	04a	0.030	135.00
23	IU	14	07	4500	C			Grease Traps	07	0.120	540.00



**Lehigh County Authority**

7676 Industrial Boulevard  
Allentown, PA 18106  
Tel 610.935.9782  
Fax 610.395.6623

Invoice Number:  
WW - 24 - 07004  
23-Aug-24

Account Number: 510004

Allstate Septic Systems LLP  
 5167 Berry Hollow Road  
 Allentown PA 18103

Description	Amount
Invoice for waste received at the Lehigh County Authority Wastewater Plant under the waste hauler program.	\$ 14,669.52
Time period for loads received	
From: 07/01/24 To: 07/31/24	
Number of Entries	82
Gallons Received	287,081
Current Balance Due	\$ 14,669.52
Volume Discount	(\$ )
Subtotal	\$ 14,669.52
Previous Unpaid Balance / Credit Due	\$
Total Due	\$ 14,669.52

**Discount will not apply if Total Due balance is not paid within 25 days of Invoice Date.**

Make Check Payable to: Lehigh County Authority  
P.O. Box 3348  
Allentown, PA 18106-0348  
Attn: Accounting

**Lehigh County Authority Wastewater Plant**  
7676 Industrial Boulevard  
Allentown, PA 18106  
(610) 395-9782  
Hauler Recap

Time Period: 7/1/2024 to 7/31/2024

Hauler ID	Gallons	Cost
Allstate Septic Systems LLP 5167 Berry Hollow Road Allentown PA 18103	287,081	\$14,669.52
<b>Broker:</b>		
<b>Total:</b>	287,081	\$14,669.52

\*Cost does not include past due balances\*

Date	Load No.	Gen/WS Code	Waste Type	Gallons	Fixed Cost	Manifest Cost	Broker
7/1/2024	14	01	01	1,000	\$0.045	\$45.00	
7/1/2024	16	X045	03a	5,000	\$0.040	\$200.00	
7/1/2024	19	X045	03a	5,000	\$0.040	\$200.00	
7/1/2024	20	X045	03a	4,500	\$0.040	\$180.00	
7/1/2024	24	01	01	2,000	\$0.045	\$90.00	
7/1/2024	26	01	01	3,500	\$0.045	\$157.50	
7/1/2024	33	X045	03a	5,000	\$0.040	\$200.00	
7/1/2024	34	X045	03a	5,000	\$0.040	\$200.00	
7/2/2024	7	07	07	4,250	\$0.120	\$510.00	
7/2/2024	16	01	01	500	\$0.045	\$22.50	
7/2/2024	21	01	01	2,500	\$0.045	\$112.50	
7/2/2024	30	X047	03a	5,000	\$0.040	\$200.00	
7/3/2024	16	X022	03a	5,000	\$0.040	\$200.00	
7/3/2024	30	07	07	2,500	\$0.120	\$300.00	
7/3/2024	34	X022	03a	5,000	\$0.040	\$200.00	
7/3/2024	44	01	01	1,500	\$0.045	\$67.50	
7/6/2024	3	01	01	5,000	\$0.045	\$225.00	
7/8/2024	6	01	01	4,000	\$0.045	\$180.00	
7/9/2024	22	07	07	3,250	\$0.120	\$390.00	
7/10/2024	19	X047	03a	5,000	\$0.040	\$200.00	
7/10/2024	28	01	01	1,000	\$0.045	\$45.00	
7/10/2024	28	02	02	3,000	\$0.045	\$135.00	
7/10/2024	29	X092	03a	1,750	\$0.040	\$70.00	
7/10/2024	29	01	01	1,000	\$0.045	\$45.00	
7/11/2024	7	07	07	500	\$0.120	\$60.00	
7/11/2024	8	X086	03a	5,000	\$0.040	\$200.00	
7/11/2024	15	X086	03a	5,000	\$0.040	\$200.00	
7/11/2024	17	X086	03a	5,000	\$0.040	\$200.00	
7/11/2024	25	X086	03a	5,000	\$0.040	\$200.00	
7/11/2024	31	X086	03a	5,000	\$0.040	\$200.00	
7/12/2024	11	X022	03a	5,000	\$0.040	\$200.00	
7/12/2024	26	01	01	1,500	\$0.045	\$67.50	
7/12/2024	26	02	02	2,000	\$0.045	\$90.00	
7/12/2024	33	01	01	3,000	\$0.045	\$135.00	
7/12/2024	53	X020	03a	4,500	\$0.040	\$180.00	
7/15/2024	25	X045	03a	5,000	\$0.040	\$200.00	



# BENEFITS

- Increased data security with WIMS' audit trail.
- Reliable data & calculations.
- Improved reporting abilities and customization.
- Easily accessible tech support due to a collective knowledge of WIMS.
- A hopeful future:
  - Use of "External Data Source Setup" will allow us to use SQL queries as variable formulas, allowing for automatic calculation of data rather than manual.

# QUESTIONS?

- Michael Brittenburg – WIMS System Administrator – Jacobs Solutions
- Email: [Michael.Brittenburg@Jacobs.com](mailto:Michael.Brittenburg@Jacobs.com)
- Phone: (484) 347-2689
- Online SQL Course:
  - Udemy.com – The Ultimate MySQL Bootcamp: Go from SQL Beginner to Expert, by Colt Steele.