

ENTERED
24/SEP/2012
C.O.

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID [0200]
*STATE CODE [19]
*SHRP SECTION ID [0200]

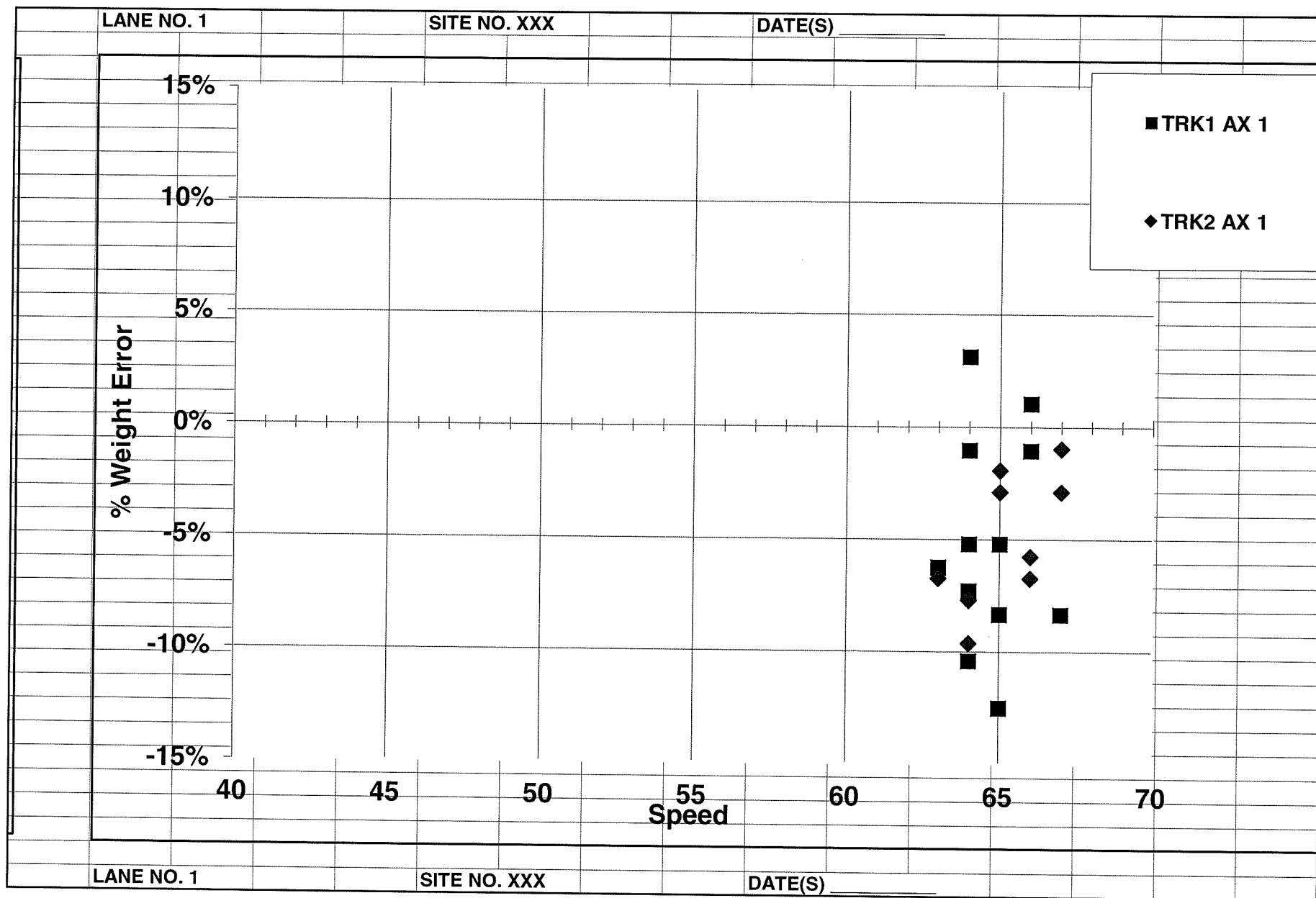
SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [21/19/2011]
2. * TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
3. * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT ☐ RESEARCH
☐ EQUIPMENT REPLACEMENT ☐ TRAINING
☐ DATA TRIGGERED SYSTEM REVISION ☐ NEW EQUIPMENT INSTALLATION
☐ OTHER (SPECIFY) _____
4. * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
☐ BARE ROUND PIEZO CERAMIC ☒ BARE FLAT PIEZO ☐ BENDING PLATES
☐ CHANNELIZED ROUND PIEZO ☐ LOAD CELLS ☐ QUARTZ PIEZO
☐ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS ☐ CAPACITANCE PADS
☐ OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER Measurement Specialties Inc

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.**CALIBRATION TECHNIQUE USED:
☐ TRAFFIC STREAM -- ☐ STATIC SCALE (Y/N) ☒ TEST TRUCKS
☐ NUMBER OF TRUCKS COMPARED ☐ 2 NUMBER OF TEST TRUCKS USED
☐ 12 PASSES PER TRUCK
- | TRUCK | TYPE | SUSPENSION |
|-------|------|------------|
| 1 | 3S2 | Air |
| 2 | 3S2 | Air |
| 3 | | |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -9.1 STANDARD DEVIATION 12.8
DYNAMIC AND STATIC SINGLE AXLES -9.1 STANDARD DEVIATION 12.8
DYNAMIC AND STATIC DOUBLE AXLES -9.1 STANDARD DEVIATION 32.4 16.6
8. ☐ NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) _____
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) _____
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: Mean Front axle of 3S2
is expected to beat 10,000 lbs

Truck 1	0														
TRUCKS 1 AND 2, COMBINED STATS					SITE NO. XXX			LANE NO. 1			DATE(S) _____				
	-----				ERROR, PERCENT						-----				
	GVW	AX 1 WT	TAN 1 WT	TAN 2 WT	TAN WT	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	VEH LGTH	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	ALL AXSP
Mean	-9.1%	-5.2%	-4.8%	-13.4%	-9.1%	-0.7%	-1.6%	-0.3%	1.0%	-4.7%	-0.1	-0.1	-0.1	0.0	-0.1
StdDev	12.8%	3.8%	16.9%	15.4%	16.6%	0.6%	1.3%	0.7%	1.8%	2.1%	0.0	0.0	0.3	0.1	0.1
1.96xStd	25.1%	7.5%	33.1%	30.1%	32.4%					4.1%					0.3



STATIC DATA ENTRY SECTION					TRUCK NO. 1								SITE NO. XXX			DATE			
	GVW	OAL		AX 1 WT	TAN 1 WT	TAN 2 WT		AX SP 1-2	AX SP 2-3	AX SP 3-4	AX SP 4-5								
	41.9	61.6		9.6	17.6	14.3		14.6	4.4	34.0	4.2								
WIM DATA ENTRY SECTION					LANE NO. 1														
Run No	Veh No	Spd	OAL	GVW	AX 1 LTWT	AX 1 RTWT	AX 2 LTWT	AX 2 RTWT	AX 3 LTWT	AX 3 RTWT	AX 4 LTWT	AX 4 RTWT	AX 5 LTWT	AX 5 RTWT	AX SP 1-2	AX SP 2-3	AX SP 3-4	AX SP 4-5	
1	91	64	60.7	43.0	8.6		9.9		10.0		5.4		9.1		14.5	4.3	34.2	4.3	
2	182	65	59.7	40.7	9.1		9.5		10.0		5.8		6.3		14.5	4.4	33.8	4.3	
3	287	65	60.2	42.6	8.8		9.9		9.9		5.4		8.7		14.5	4.3	33.9	4.3	
4	362	64	59.1	42.3	9.1		9.7		9.9		5.1		8.6		14.3	4.3	33.7	4.2	
5	458	66	59.4	44.4	9.5		10.0		10.3		5.8		8.8		14.4	4.3	33.6	4.2	
6	52	64	59.4	42.4	8.9		9.6		9.7		5.8		8.2		14.5	4.3	33.8	4.2	
7	143	67	60.1	44.0	8.8		10.1		9.8		6.1		9.1		14.6	4.2	34.0	4.3	
8	237	65	59.5	43.8	8.4		9.7		9.9		6.0		8.8		14.4	4.4	33.7	4.3	
9	324	64	60.7	43.1	9.5		8.6		9.7		6.6		8.7		14.4	4.4	33.9	4.3	
10	441	64	59.7	44.1	9.9		9.6		10.2		6.1		8.2		14.4	4.3	33.5	4.2	
11	58	63	59.8	45.1	9.0		10.2		10.0		7.0		9.0		14.5	4.3	33.8	4.3	
12	147	66	60.1	43.2	9.7		9.6		9.8		6.2		7.8		14.4	4.4	33.7	4.3	
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Mean			59.9	43.2	9.1	#DIV/0!	9.7	#DIV/0!	9.9	#DIV/0!	5.9	#DIV/0!	8.4	#DIV/0!	14.5	4.3	33.8	4.3	
Std Dev			0.5	1.2	0.5	#DIV/0!	0.4	#DIV/0!	0.2	#DIV/0!	0.5	#DIV/0!	0.8	#DIV/0!	0.1	0.1	0.2	0.0	

LANE NO. 1		TRUCK NO. 1			SITE NO. XXX			DATE								
		ERROR, PERCENT										ERROR, FEET				
Run No	GVW	AX 1 WT	TAN 1 WT	TAN 2 WT	TAN WT	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	VEH LGTH	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	ALL AXLS	
1	2.6%	-10.4%	13.1%	1.4%		-0.7%	-2.3%	0.6%	2.4%	-1.5%	-0.1	-0.1	0.2	0.1		
2	-2.9%	-5.2%	10.8%	-15.4%		-0.7%	0.0%	-0.6%	2.4%	-3.1%	-0.1	0.0	-0.2	0.1		
3	1.7%	-8.3%	12.5%	-1.4%		-0.7%	-2.3%	-0.3%	2.4%	-2.3%	-0.1	-0.1	-0.1	0.1		
4	1.0%	-5.2%	11.4%	-4.2%		-2.1%	-2.3%	-0.9%	0.0%	-4.1%	-0.3	-0.1	-0.3	0.0		
5	6.0%	-1.0%	15.3%	2.1%		-1.4%	-2.3%	-1.2%	0.0%	-3.6%	-0.2	-0.1	-0.4	0.0		
6	1.2%	-7.3%	9.7%	-2.1%		-0.7%	-2.3%	-0.6%	0.0%	-3.6%	-0.1	-0.1	-0.2	0.0		
7	5.0%	-8.3%	13.1%	6.3%		0.0%	-4.5%	0.0%	2.4%	-2.4%	0.0	-0.2	0.0	0.1		
8	4.5%	-12.5%	11.4%	3.5%		-1.4%	0.0%	-0.9%	2.4%	-3.4%	-0.2	0.0	-0.3	0.1		
9	2.9%	-1.0%	4.0%	7.0%		-1.4%	0.0%	-0.3%	2.4%	-1.5%	-0.2	0.0	-0.1	0.1		
10	5.3%	3.1%	12.5%	0.0%		-1.4%	-2.3%	-1.5%	0.0%	-3.1%	-0.2	-0.1	-0.5	0.0		
11	7.6%	-6.3%	14.8%	11.9%		-0.7%	-2.3%	-0.6%	2.4%	-2.9%	-0.1	-0.1	-0.2	0.1		
12	3.1%	1.0%	10.2%	-2.1%		-1.4%	0.0%	-0.9%	2.4%	-2.4%	-0.2	0.0	-0.3	0.1		
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Mean	3.2%	-5.1%	11.6%	0.6%	6.1%	-1.0%	-1.7%	-0.6%	1.6%	-2.8%	-0.1	-0.1	-0.2	0.1	-0.1	
StdDev	2.8%	4.8%	2.9%	6.8%	7.6%	0.5%	1.4%	0.5%	1.2%	0.8%	0.1	0.1	0.2	0.0	0.1	
1.96xStdDev	5.5%	9.3%	5.7%	13.3%	14.9%						0.2	0.1	0.4	0.1	0.3	

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LANE NO. 1

TRUCK NO. 1

SITE NO. XXX

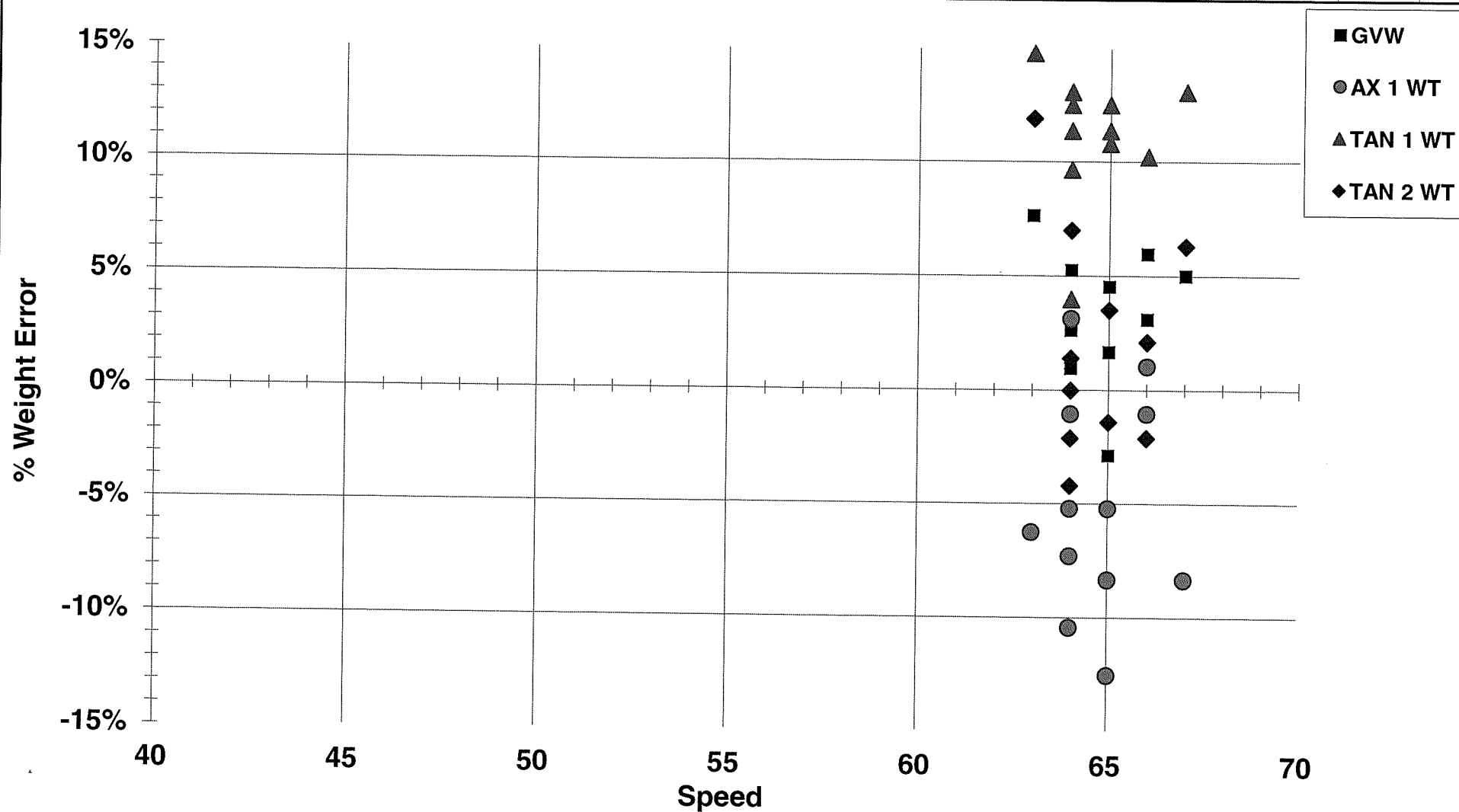
DATE _____

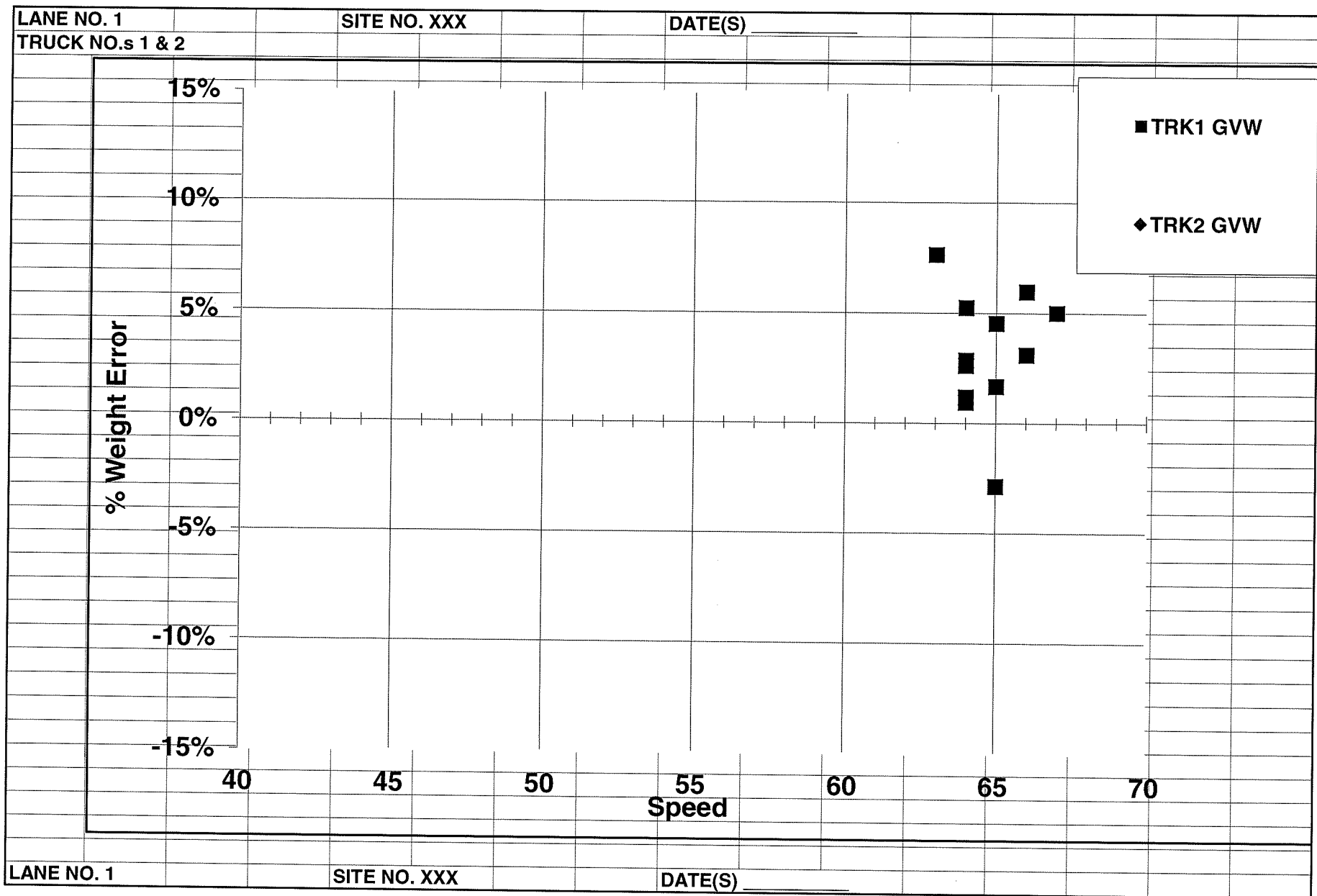
STATISTICAL DATA

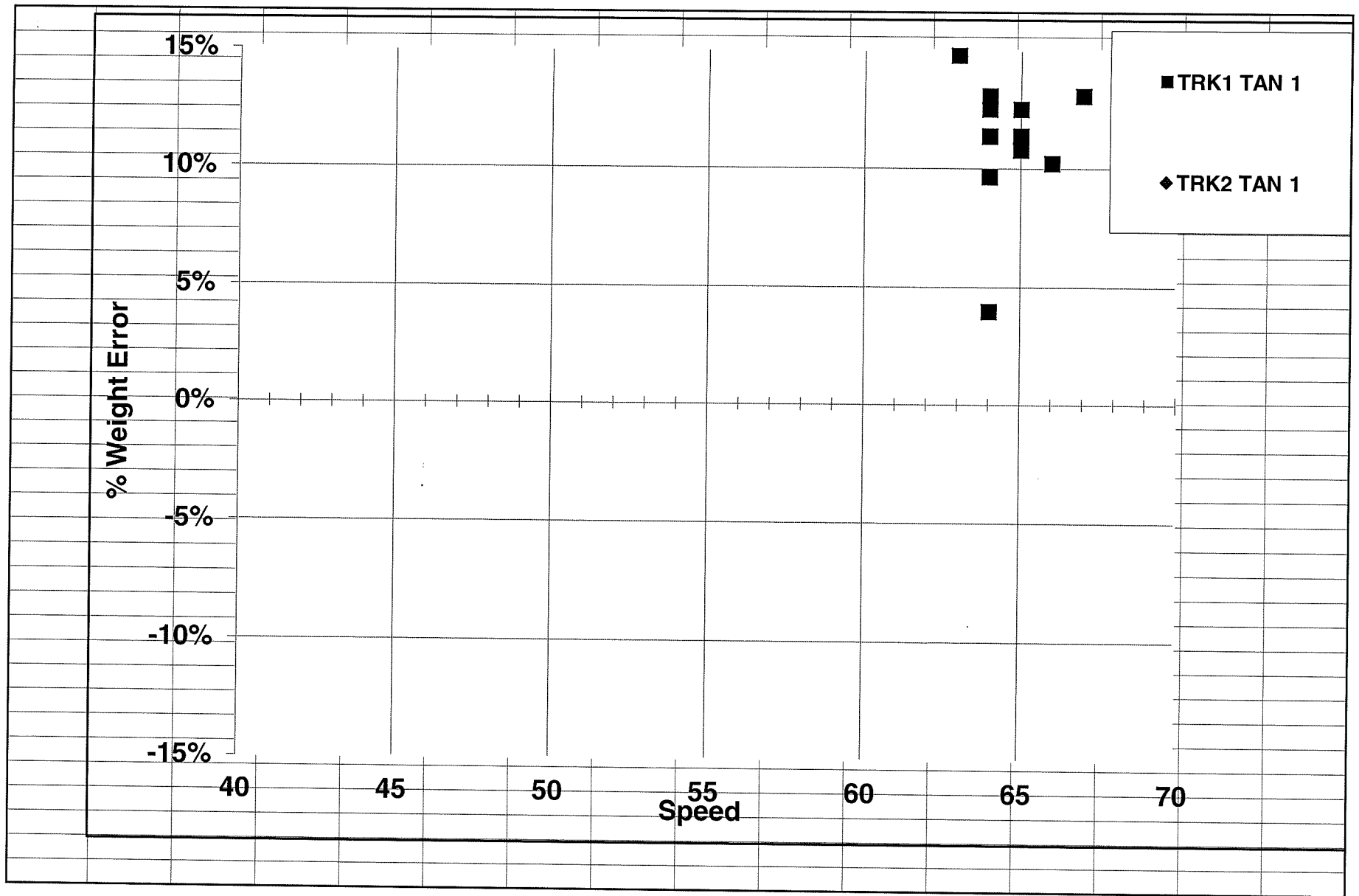
ERROR, PERCENT

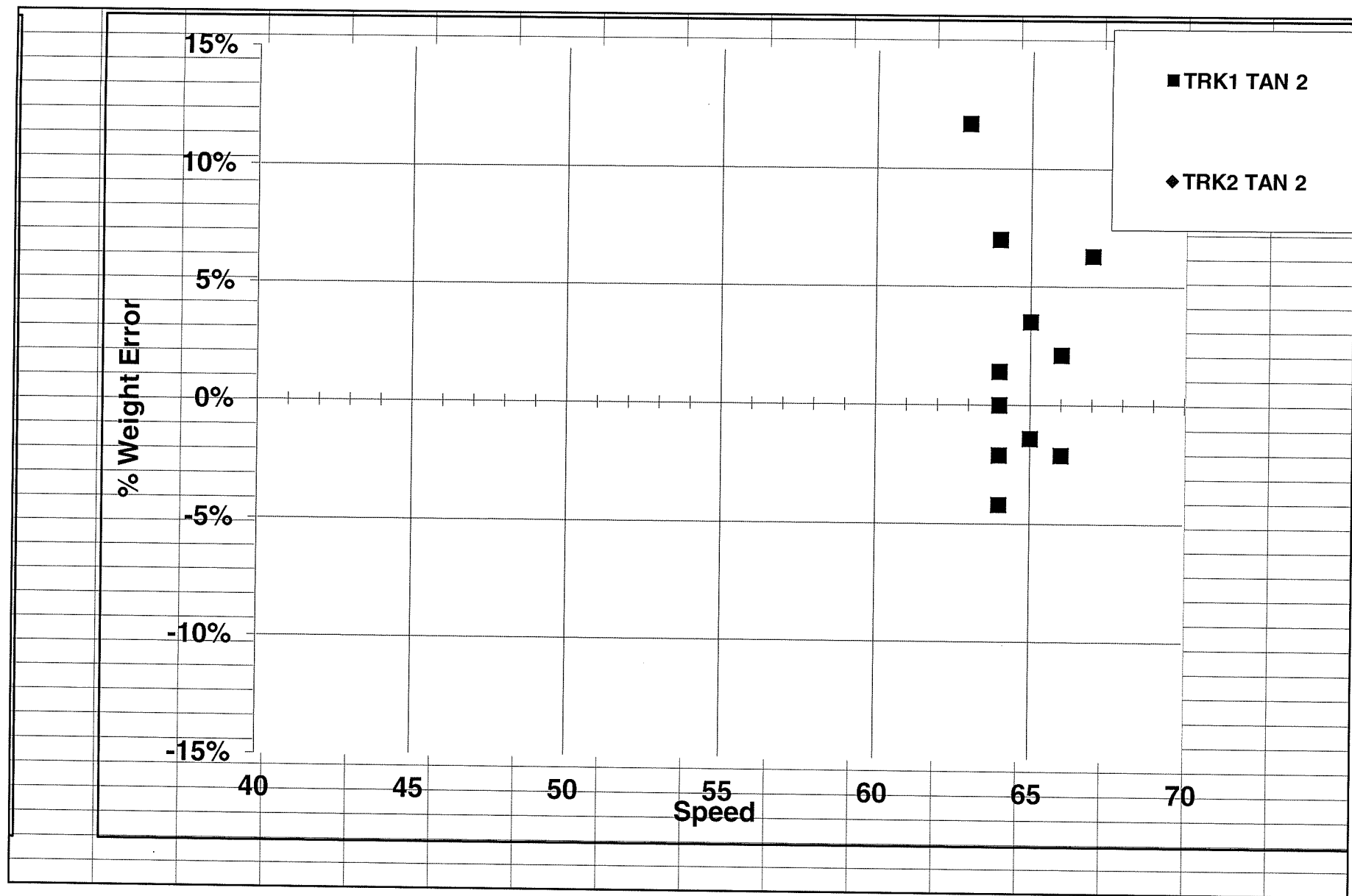
ERROR, FEET

	GVW	AX 1 WT	TAN 1 WT	TAN 2 WT	TAN WT	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	VEH LGTH	ALL AXLS
Mean	3.2%	-5.1%	11.6%	0.6%	6.1%	-1.0%	-1.7%	-0.6%	1.6%	-2.8%	-0.1
StdDev	2.8%	4.8%	2.9%	6.8%	7.6%	0.5%	1.4%	0.5%	1.2%	0.8%	0.1
1.96xStdDev	5.5%	9.3%	5.7%	13.3%	14.9%						0.3









STATIC DATA ENTRY SECTION					TRUCK NO. 2								SITE NO. XXX			DATE				
	GVW	OAL		AX 1 WT	TAN 1 WT	TAN 2 WT		AX SP 1-2	AX SP 2-3	AX SP 3-4	AX SP 4-5									
	78.5	59.4		10.4	33.3	35.2		11.2	4.3	33.8	4.2									
WIM DATA ENTRY SECTION					LANE NO. 1															
Run No	Veh No	Spd	OAL	GVW	AX 1 LTWT	AX 1 RTWT	AX 2 LTWT	AX 2 RTWT	AX 3 LTWT	AX 3 RTWT	AX 4 LTWT	AX 4 RTWT	AX 5 LTWT	AX 5 RTWT	AX SP 1-2	AX SP 2-3	AX SP 3-4	AX SP 4-5		
1	104	63	55.9	61.1	9.7		13.1		13.2		12.2		12.9		11.1	4.2	33.8	4.3		
2	196	64	55.7	60.8	9.6		13.0		13.1		12.3		12.9		11.2	4.3	33.8	4.3		
3	305	64	54.4	60.4	9.4		12.9		13.3		11.3		13.5		11.1	4.2	33.2	4.2		
4	389	64	56.0	61.9	9.6		13.2		13.6		12.6		13.0		11.1	4.2	34.0	4.3		
5	21	67	55.5	63.9	10.1		13.3		13.5		12.8		14.2		11.2	4.3	34.1	4.2		
6	124	66	55.4	60.9	9.7		13.2		11.0		13.0		14.0		11.2	4.2	33.9	4.2		
7	214	63	55.3	59.4	9.7		12.7		13.4		11.6		12.0		11.2	4.2	33.7	4.1		
8	288	67	56.0	64.3	10.1		13.4		13.6		13.0		14.2		11.2	4.2	34.1	4.3		
9	402	66	55.1	59.2	9.8		13.3		13.3		12.8		9.9		11.2	4.3	33.6	4.3		
10	511	65	54.9	64.1	10.1		13.4		13.3		12.9		14.3		11.1	4.2	33.6	4.2		
11	87	65	55.7	63.4	10.2		13.1		13.3		13.0		13.8		11.2	4.2	33.7	4.0		
12	186	67	55.8	60.6	10.3		13.0		13.1		12.6		11.6		11.2	4.3	33.9	4.2		
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	Mean		55.5	61.7	9.9	#DIV/0!	13.1	#DIV/0!	13.1	#DIV/0!	12.5	#DIV/0!	13.0	#DIV/0!	11.2	4.2	33.8	4.2		
	Std Dev		0.5	1.8	0.3	#DIV/0!	0.2	#DIV/0!	0.7	#DIV/0!	0.6	#DIV/0!	1.3	#DIV/0!	0.0	0.0	0.3	0.1		

LANE NO. 1		TRUCK NO. 2			SITE NO. XXX			DATE								
		ERROR, PERCENT										ERROR, FEET				
Run No	GVW	AX 1 WT	TAN 1 WT	TAN 2 WT	TAN WT	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	VEH LGTH	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	ALL AXLS	
1	-22.2%	-6.7%	-21.0%	-28.7%		-0.9%	-2.3%	0.0%	2.4%	-5.9%	-0.1	-0.1	0.0	0.1		
2	-22.5%	-7.7%	-21.6%	-28.4%		0.0%	0.0%	0.0%	2.4%	-6.2%	0.0	0.0	0.0	0.1		
3	-23.1%	-9.6%	-21.3%	-29.5%		-0.9%	-2.3%	-1.8%	0.0%	-8.4%	-0.1	-0.1	-0.6	0.0		
4	-21.1%	-7.7%	-19.5%	-27.3%		-0.9%	-2.3%	0.6%	2.4%	-5.7%	-0.1	-0.1	0.2	0.1		
5	-18.6%	-2.9%	-19.5%	-23.3%		0.0%	0.0%	0.9%	0.0%	-6.6%	0.0	0.0	0.3	0.0		
6	-22.4%	-6.7%	-27.3%	-23.3%		0.0%	-2.3%	0.3%	0.0%	-6.7%	0.0	-0.1	0.1	0.0		
7	-24.3%	-6.7%	-21.6%	-33.0%		0.0%	-2.3%	-0.3%	-2.4%	-6.9%	0.0	-0.1	-0.1	-0.1		
8	-18.1%	-2.9%	-18.9%	-22.7%		0.0%	-2.3%	0.9%	2.4%	-5.7%	0.0	-0.1	0.3	0.1		
9	-24.6%	-5.8%	-20.1%	-35.5%		0.0%	0.0%	-0.6%	2.4%	-7.2%	0.0	0.0	-0.2	0.1		
10	-18.3%	-2.9%	-19.8%	-22.7%		-0.9%	-2.3%	-0.6%	0.0%	-7.6%	-0.1	-0.1	-0.2	0.0		
11	-19.2%	-1.9%	-20.7%	-23.9%		0.0%	-2.3%	-0.3%	-4.8%	-6.2%	0.0	-0.1	-0.1	-0.2		
12	-22.8%	-1.0%	-21.6%	-31.3%		0.0%	0.0%	0.3%	0.0%	-6.1%	0.0	0.0	0.1	0.0		
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Mean	-21.4%	-5.2%	-21.1%	-27.5%	-24.3%	-0.3%	-1.6%	0.0%	0.4%	-6.6%	0.0	-0.1	0.0	0.0	0.0	
StdDev	2.3%	2.8%	2.2%	4.4%	4.7%	0.4%	1.1%	0.7%	2.2%	0.8%	0.0	0.0	0.3	0.1	0.1	
1.96xStdDev	4.5%	5.4%	4.3%	8.5%	9.2%						0.1	0.1	0.5	0.2	0.3	

[illegible]

LANE NO. 1

TRUCK NO. 2

SITE NO. XXX

DATE _____

STATISTICAL DATA

ERROR PERCENT

ERROR, FEET

	GVW	AX 1 WT	TAN 1 WT	TAN 2 WT	TAN WT	AXSP 1-2	AXSP 2-3	AXSP 3-4	AXSP 4-5	VEH LGTH	ALL AXLS
Mean	-21.4%	-5.2%	-21.1%	-27.5%	-24.3%	-0.3%	-1.6%	0.0%	0.4%	-6.6%	0.0
StdDev	2.3%	2.8%	2.2%	4.4%	4.7%	0.4%	1.1%	0.7%	2.2%	0.8%	0.1
1.96xStdDev	4.5%	5.4%	4.3%	8.5%	9.2%						0.3

