



Rail Fleet Services Monthly Report March 2014



Metro

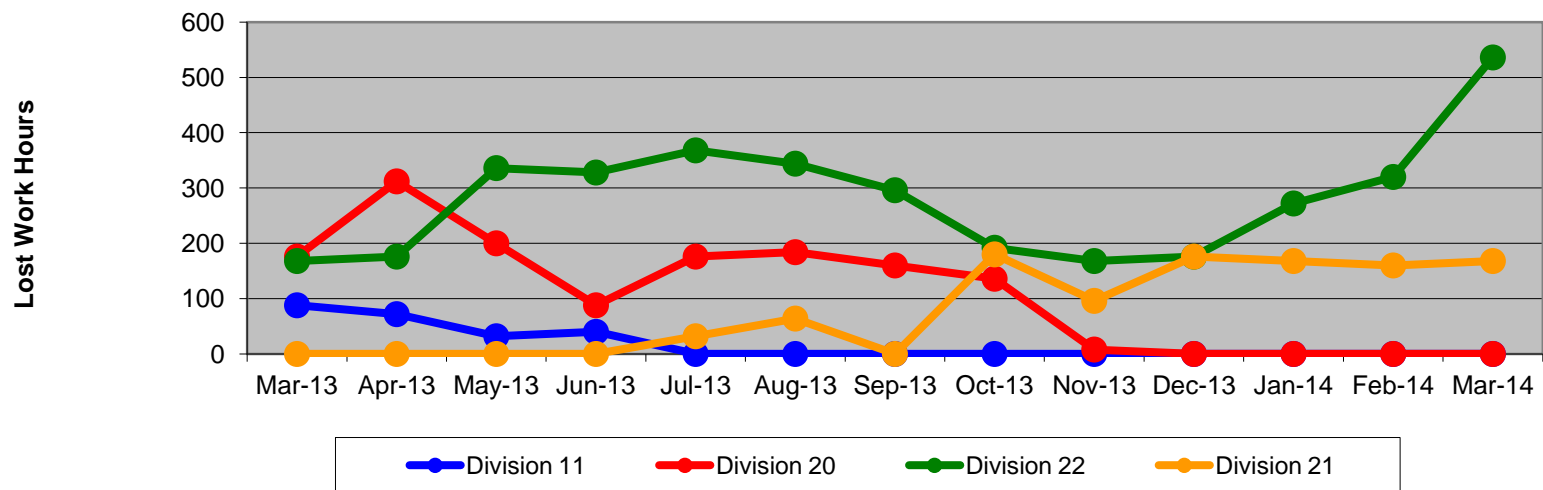
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Industrial Injuries – Lost Work Hours March 2014

	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	13-Month Period
Division 11	88	72	32	40	0	0	0	0	0	0	0	0	0	232
Division 20	176	312	200	88	176	184	160	136	8	0	0	0	0	1,440
Division 22	168	176	336	328	368	344	296	192	168	176	272	320	536	3,680
Division 21	0	0	0	0	32	64	0	180	96	176	168	160	168	1,044
Totals	432	560	568	456	576	592	456	508	272	352	440	480	704	6,396

Industrial Injuries (lost work hours)



Rail Vehicle Accidents & Major Incidents

March 2014

Repair Costs	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	13-Month Period
Blue/Expo Line	\$2,959	\$237,017	\$11,700	\$4,926	\$14,951	\$2,338	\$3,700	\$11,475	\$13,838	\$0	\$8,370	\$15,618	\$13,690	\$340,582
Red/Purple Line	\$0	\$4,165	\$0	\$0	\$0	\$1,358	\$0	\$0	\$0	\$0	\$0	\$0	\$356	\$5,879
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,008	\$0	\$0	\$0	\$1,008
Gold Line	\$0	\$0	\$261	\$8,220	\$0	\$537	\$0	\$0	\$0	\$0	\$0	\$0	\$714	\$9,732
Totals	\$2,959	\$241,182	\$11,961	\$13,146	\$14,951	\$4,233	\$3,700	\$11,475	\$13,838	\$1,008	\$8,370	\$15,618	\$14,760	\$357,201

Rail Vehicle Accident Costs - March 2014				
Date	Incident #	Problem Code	Incident Description	Cost
Metro Blue Line				
3/1/14	24226879	Train vs. Vehicle	A 10-73 was reported at Southbound Wilmington crossing.	\$ 11,760
3/4/14	2427765	Train vs. Vehicle	A 10-73 was reported at Washington and Maple St. Northbound.	\$ 632
3/13/14	2431325	Train vs. Vehicle	A 10-73 was reported at Flower and 18th St. Southbound.	\$ 228
3/20/14	2434248	Train vs. Object	A 10-71 was reported for train and crossing gate at 41st grade crossing.	\$ -
3/26/14	2436433	Train vs. Pedestrian	A 10-72 was reported at 7th/MC platform 1.	\$ -
Total				\$ 12,620
Metro Expo Line				
3/16/14	2432426	Train vs. Vehicle	A 10-73 was reported at 11th Ave. Southbound.	\$ 2,020
Total				\$ 1,070
Metro Gold Line				
3/7/14	2429275	Train vs. Vehicle	A 10-73 was reported at First and Anderson Southbound.	\$ 714
Total				\$ 714
Metro Red Line				
3/15/14	2432095	Derailment	A 10-75 was reported in Red Line Yard while performing in the Rodeo competition.	\$ 356
Total				\$ 356
Grand Total				\$ 14,760
(10-71) = Train vs. Object, (10-72) = Train vs. Pedestrian, (10-73) = Train vs. Vehicle (10-74) = Train vs. MTA Vehicle, (10-75) = Derailment				

Note: Repair costs are only the expenses captured during the time period of the report. Actual costs may be significantly higher, if repairs are spread out over several months.

Service Delivery March 2014

Blue/Expo Line Fleet Size: 92

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	78	79	101%
Weekend:	60	63	105%
Late Pullouts: 0*			
Monthly Mileage:	657,454		

Red/Purple Line Fleet Size: 104

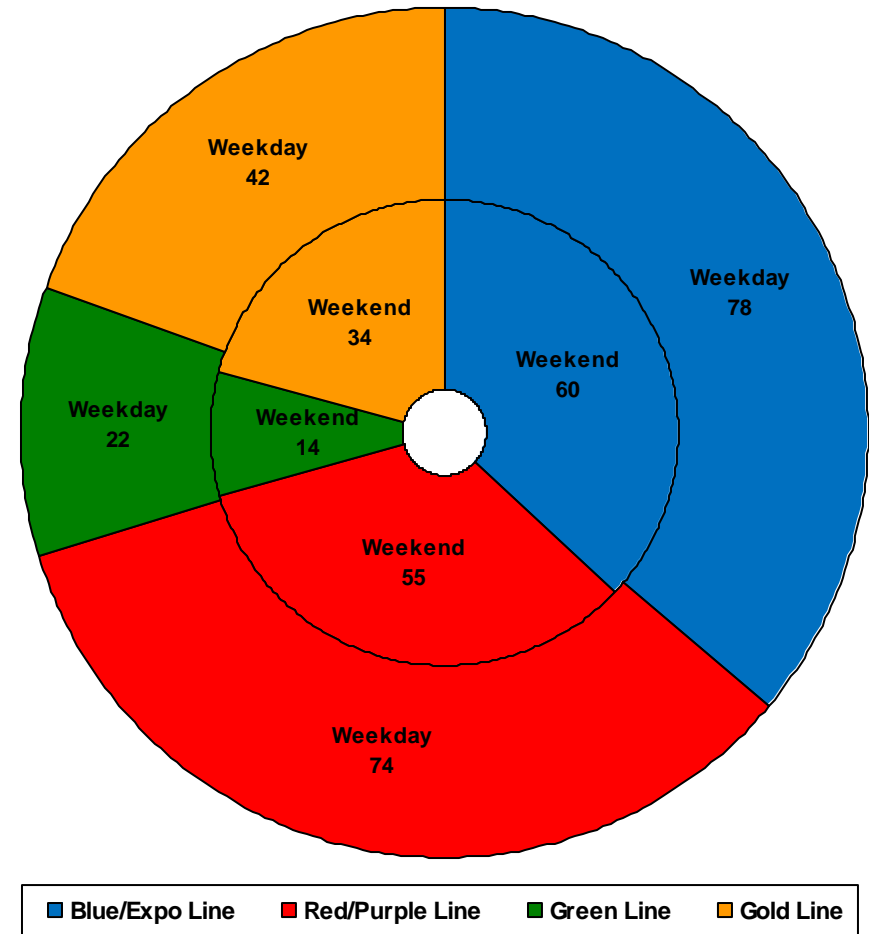
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	74	81	109%
Weekend:	55	69	125%
Late Pullouts: 0*			
Monthly Mileage:	643,758		

Green Line Fleet Size: 29

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	22	23	105%
Weekend:	14	18	129%
Late Pullouts: 0*			
Monthly Mileage:	232,563		

Gold Line Fleet Size: 50

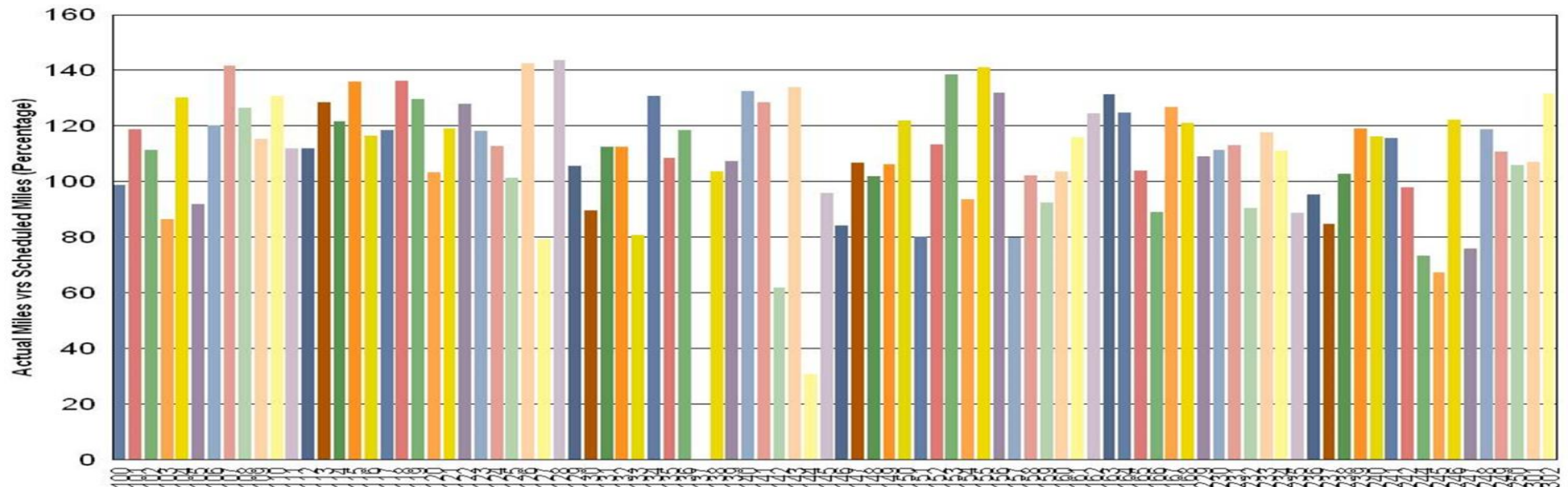
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	42	43	102%
Weekend:**	34	41	121%
Late Pullouts: 0*			
Monthly Mileage:	329,507		



Vehicle Utilization

March 2014

Metro Blue/Expo Line



Blue/Expo Line:

Car # 137 has been out of service due to major accident repair.

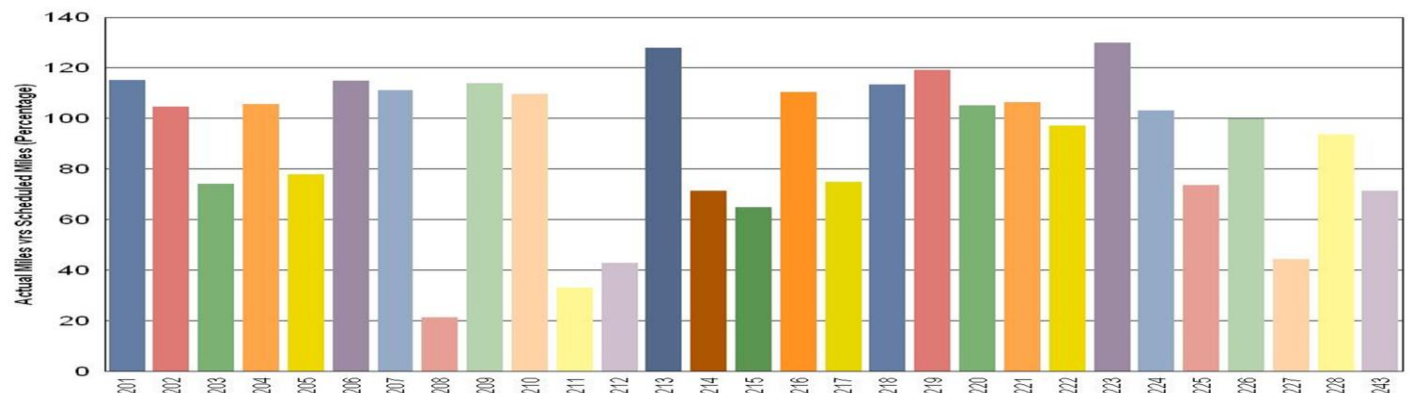
Car # 144 spent a lot of time in the shop this month for Body work, interior work, and truck work.

Metro Green Line

Green Line:

Car # 208 is still on hold for troubleshooting.

Car # 211 was on hold for prop fault troubleshooting.



Note: Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

Vehicle Utilization

March 2014

Red/Purple Line:

The following cars are out of service due to:

Car # 511-512 Floor repair

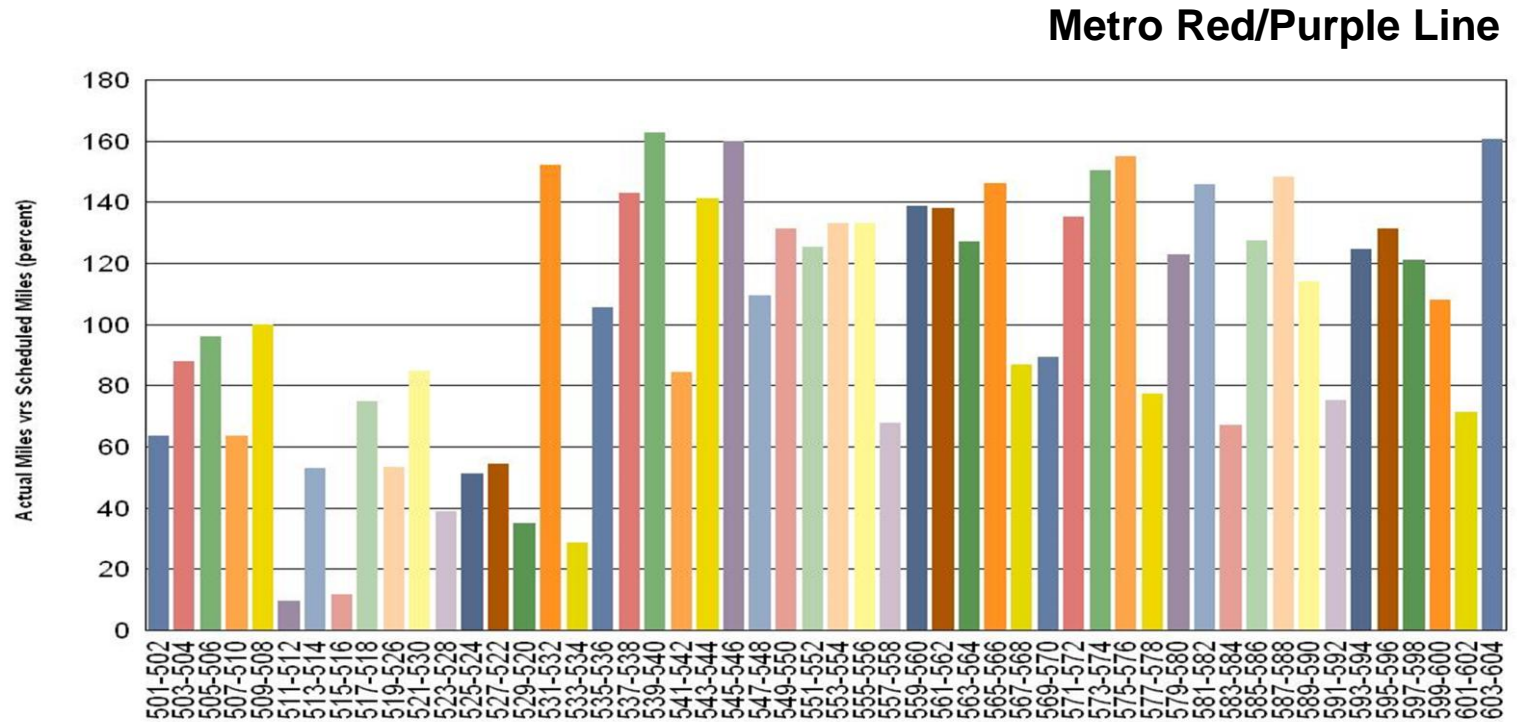
Car # 515-516 Low Voltage

Power Supply failure

Car # 523-528 Truck Swap and ATP Issue

Car# 529-520 Propulsion Fault and HSCB Trip

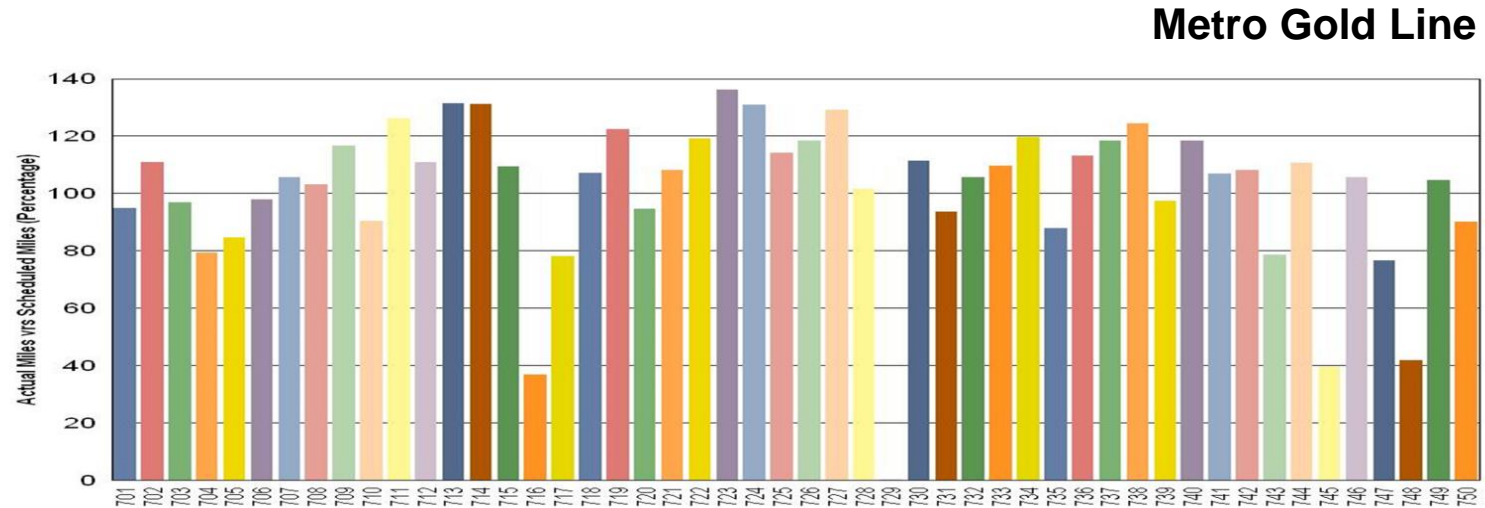
Car# 533-534 Wheel Flat (Wheel True Machine Inoperative for two weeks)



Gold Line:

Car # 716 was out of service for an Automatic Train Protection (ATP) fault.

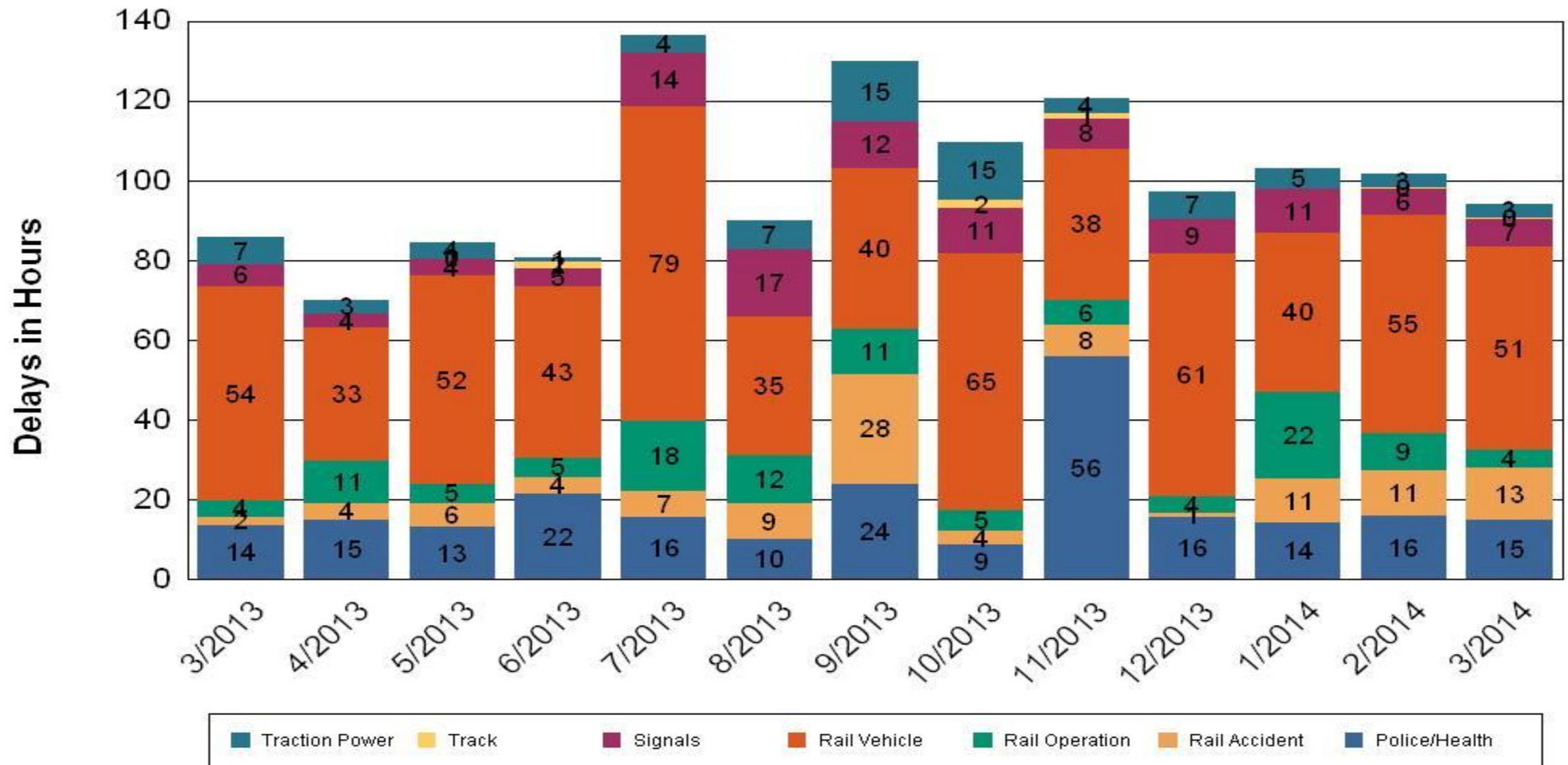
Car # 729 was out of service for repairs, and long lead time parts.



All Train Delay (Hours) March 2014

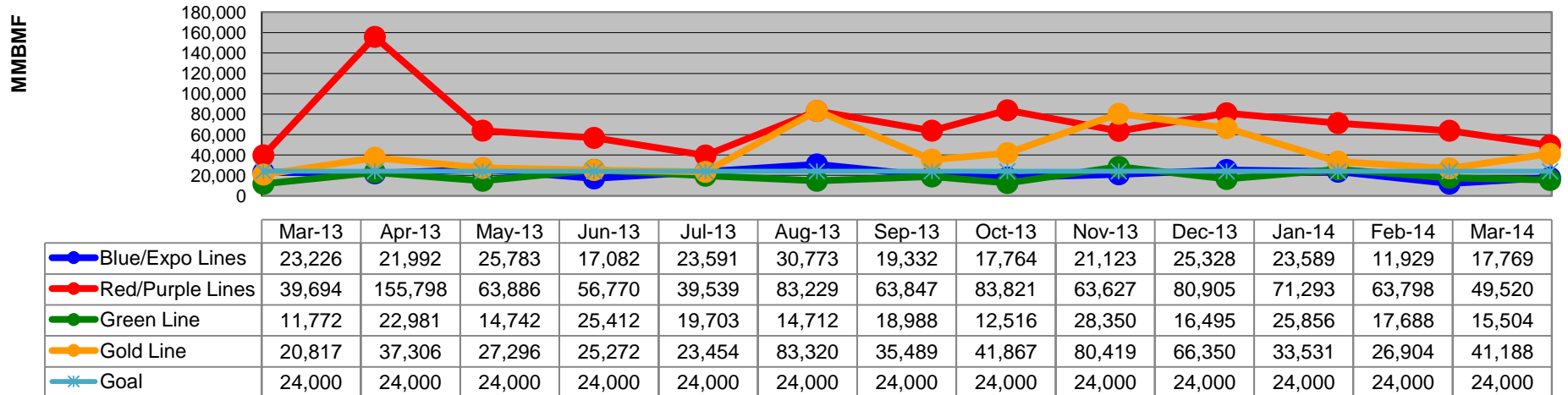
All Train Delays

Totals Include the delay to all trains involved (not just the primary incident)

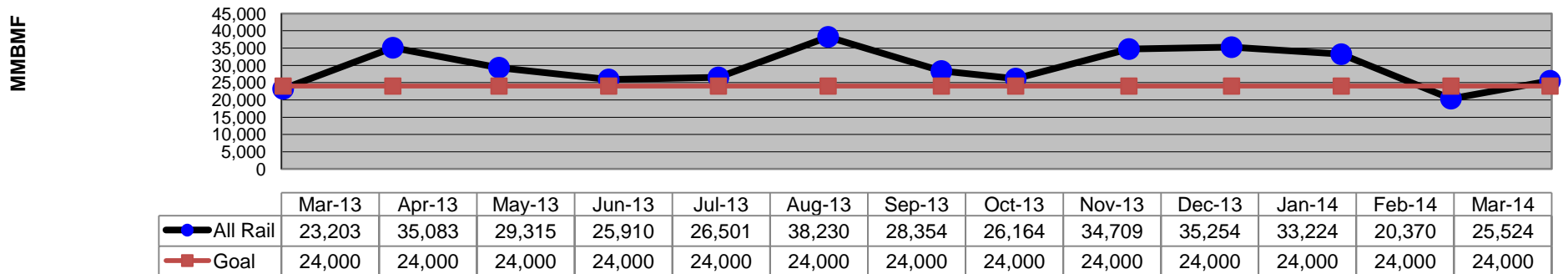


Mean Miles Between Failures (Major) Year to Date

Mean Miles Between Major Failures (by line)



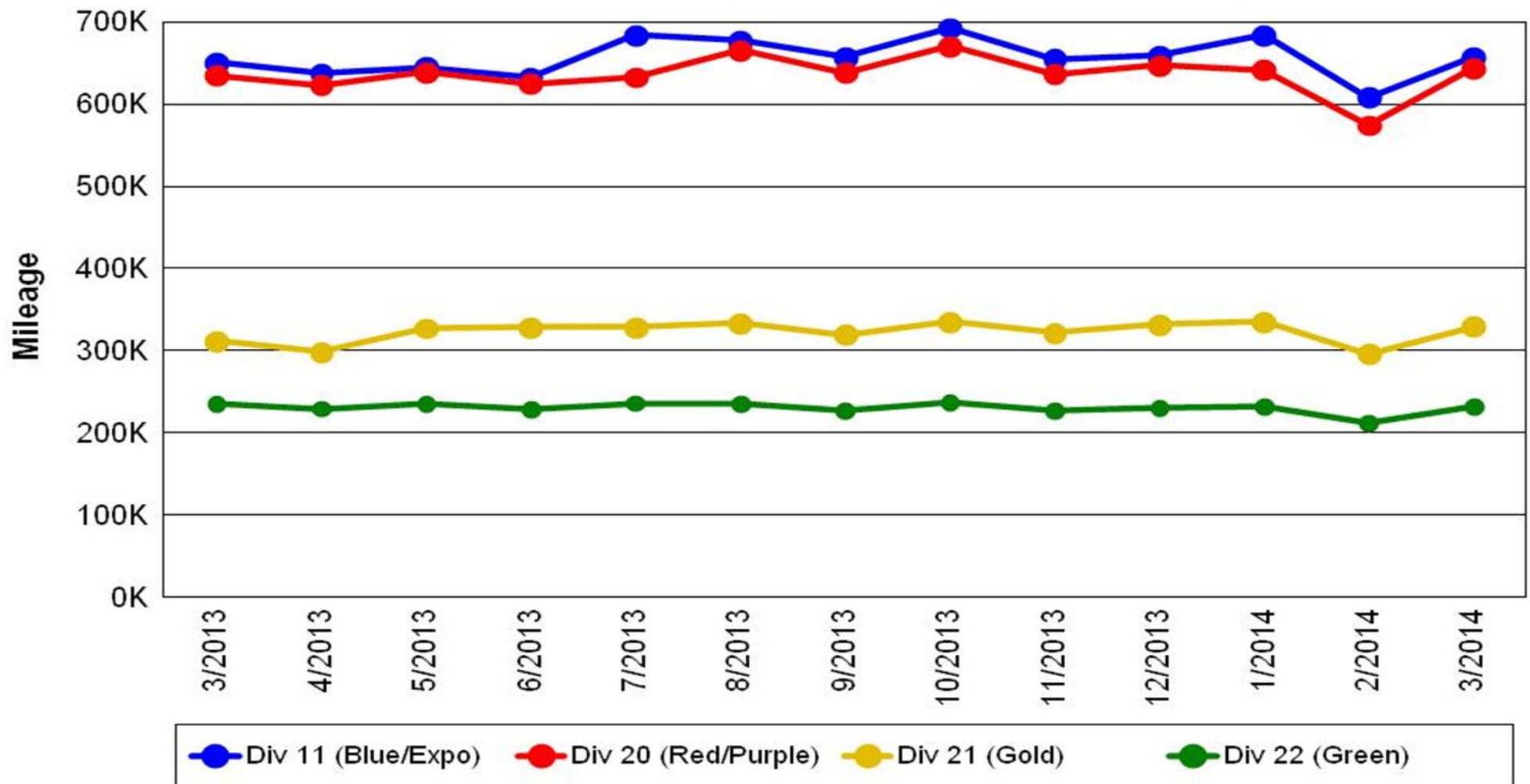
Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month)

March 2014

Rail Division Monthly Mileage

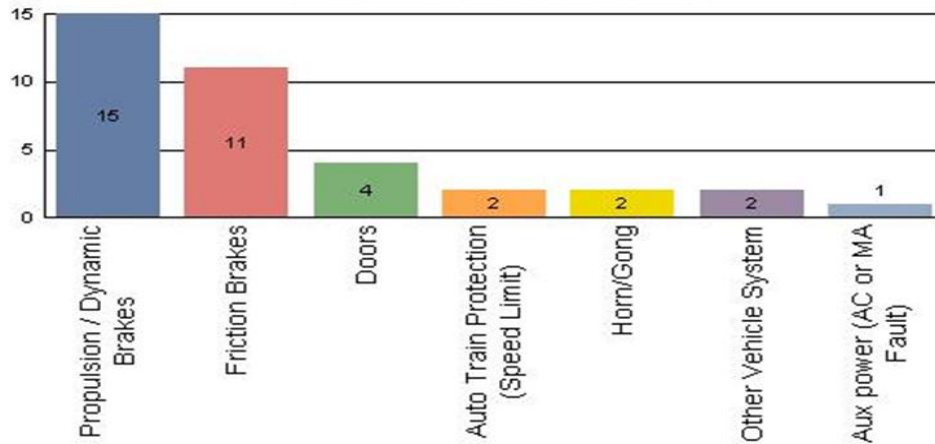


Top Incident Categories

March 2014

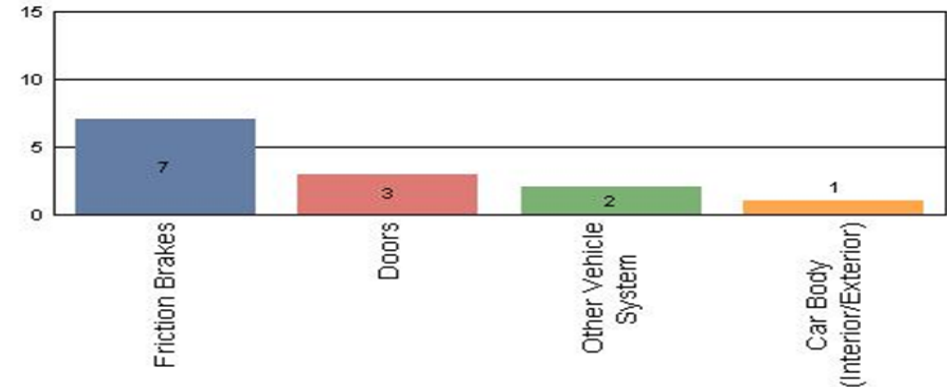
Metro Blue/Expo Line

Top Incident Categories



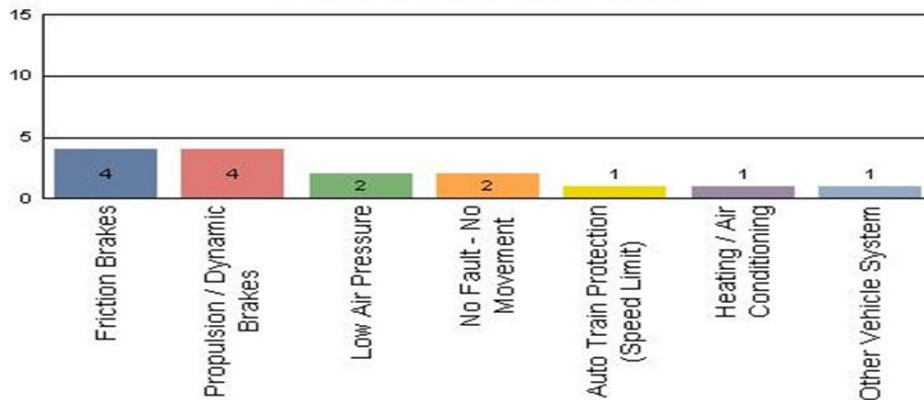
Metro Red/Purple Line

Top Incident Categories



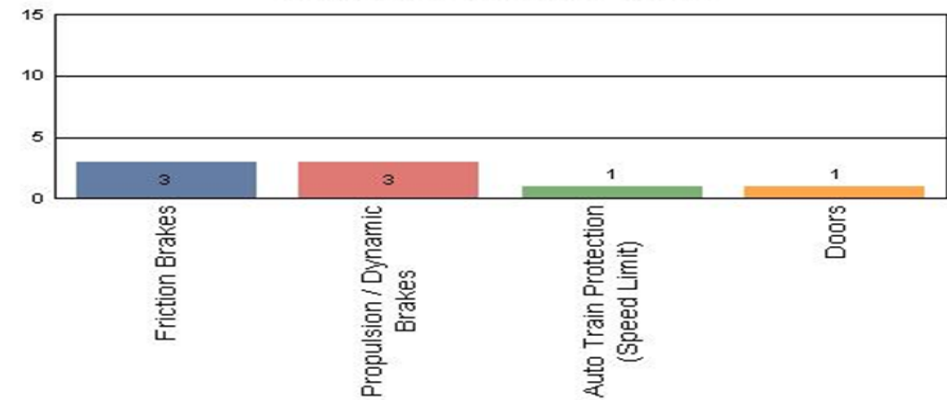
Metro Green Line

Top Incident Categories



Metro Gold Line

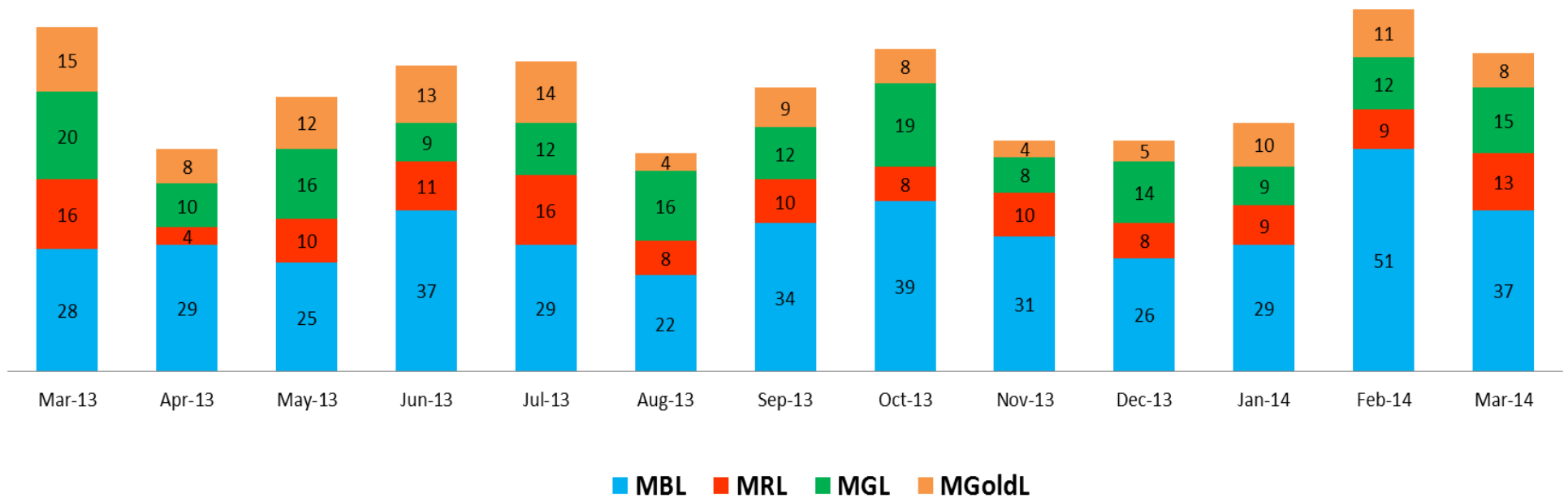
Top Incident Categories



Major Incidents

March 2014

Numbers of Major Incidents by Line



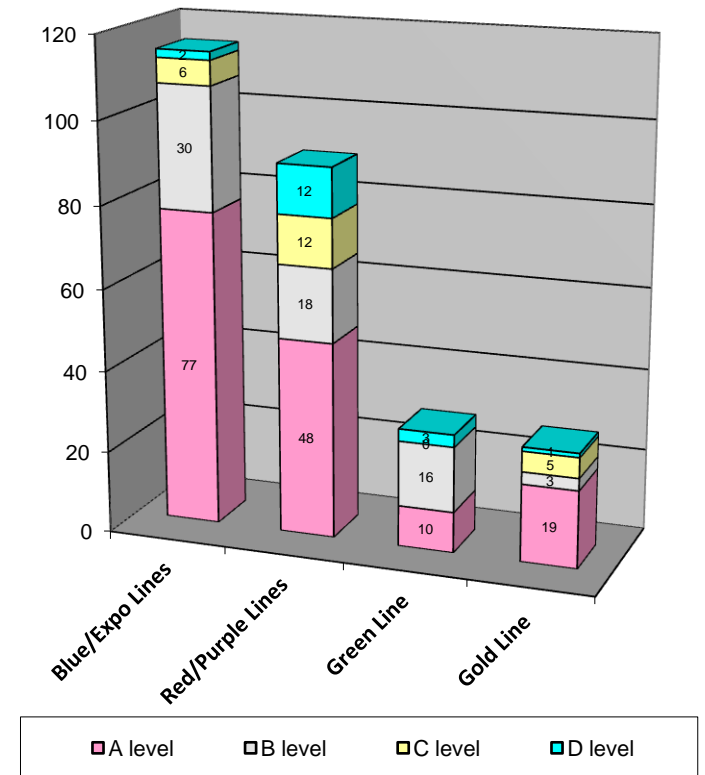
Preventive Maintenance Compliance

March 2014

PM Compliance	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Green Line	100%	100%	91%	100%	100%	100%	100%	96%	92%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

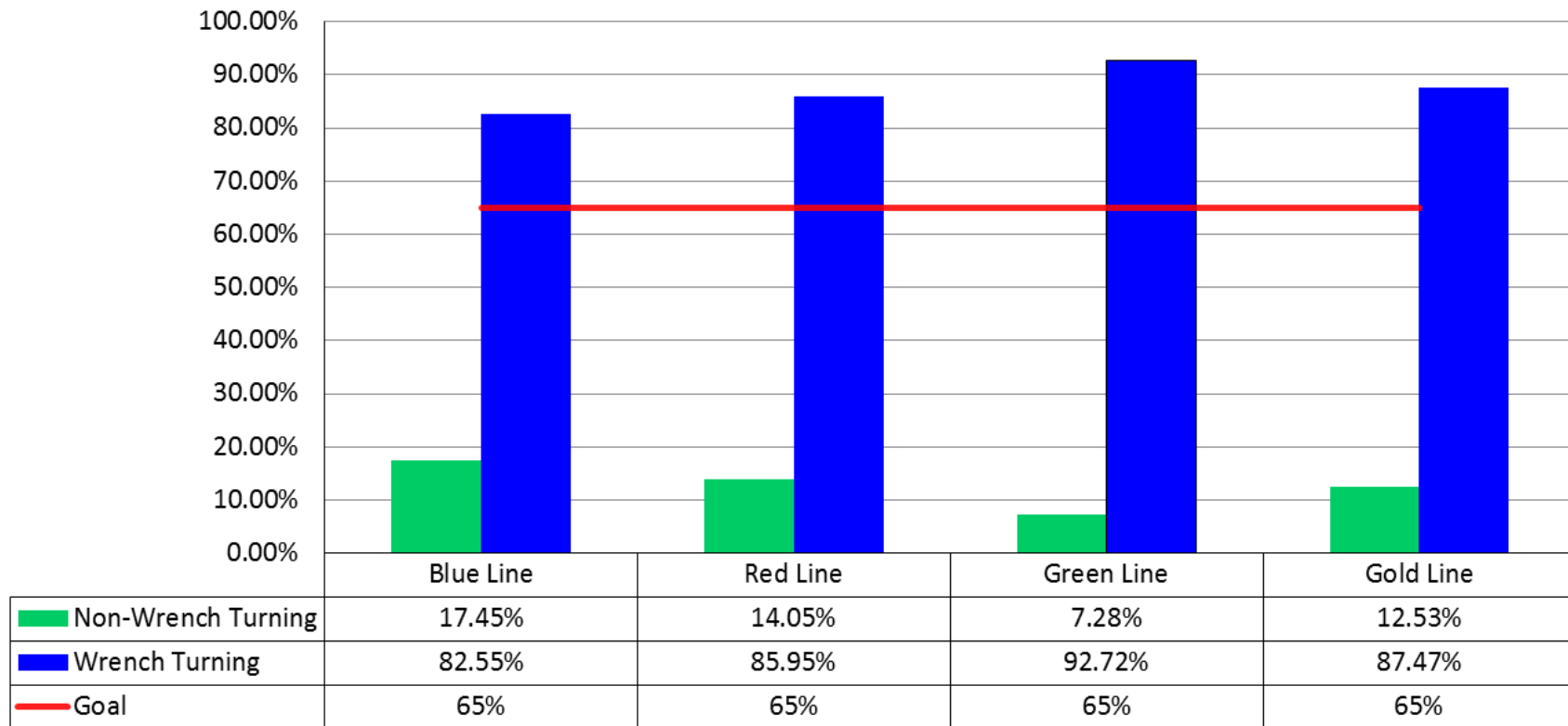
Number of Preventive Maintenance Inspections - March 2014					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	77	30	6	2	115
Red/Purple Lines	48	18	12	12	90
Green Line	10	16	0	3	29
Gold Line	19	3	5	1	28
Totals:	154	67	23	18	262

Explanation of PM Inspection levels		Miles			
Line	Type	A level	B level	C level	D level
Blue/Expo Lines	P865/P2020	5,000	15,000	30,000	60,000
Blue/Expo Lines	P2000	7,500	22,500	45,000	90,000
Red/Purple Lines	A650	7,500	22,500	45,000	90,000
Green Line	P2000	7,500	22,500	45,000	90,000
Gold Line	P2550	10,000	30,000	60,000	120,000



RFS Wrench Turning March 2014

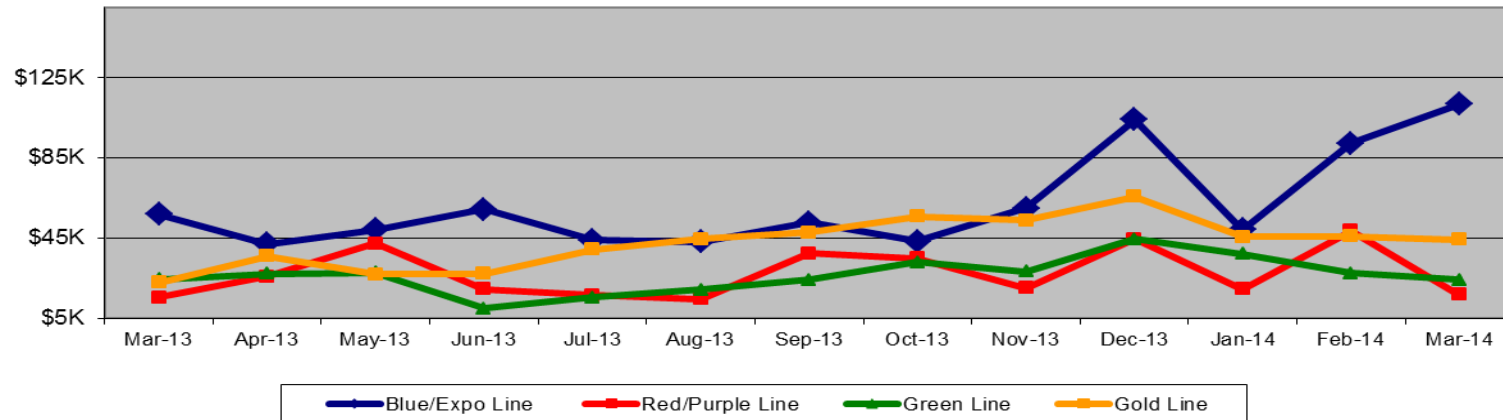
RFS - Wrench Turning March 2014



Vandalism & Graffiti Report

March 2014

	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	13-Month Period
Blue/Expo Line	\$57K	\$42K	\$49K	\$59K	\$44K	\$43K	\$53K	\$43K	\$60K	\$104K	\$49K	\$92K	\$112K	\$807K
Red/Purple Line	\$15K	\$26K	\$42K	\$19K	\$16K	\$14K	\$37K	\$35K	\$20K	\$44K	\$19K	\$49K	\$17K	\$355K
Green Line	\$24K	\$27K	\$28K	\$10K	\$15K	\$19K	\$24K	\$33K	\$28K	\$44K	\$37K	\$27K	\$24K	\$342K
Gold Line	\$23K	\$36K	\$27K	\$27K	\$39K	\$44K	\$48K	\$56K	\$54K	\$66K	\$46K	\$46K	\$44K	\$554K
Totals:	\$119K	\$131K	\$146K	\$116K	\$115K	\$121K	\$162K	\$167K	\$162K	\$258K	\$151K	\$214K	\$197K	\$2,058K



March 2014 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	339	\$ 25,704	\$ 44,742	\$ 70,446
Vandal Shields	491	\$ 14,984	\$ 7,279	\$ 22,263
Seats Cleaned	612	\$ 3,068	\$ -	\$ 3,068
Seats Replaced	160	\$ 5,040	\$ 6,048	\$ 11,088
Graffiti removal - other	903	\$ 51,957	\$ 5,385	\$ 57,342
Repainting panels	276	\$ 21,798	\$ 10,555	\$ 32,353
Totals	2,781	\$ 122,551	\$ 74,009	\$ 196,560

Graffiti Pictures

March 2014

Blue Line



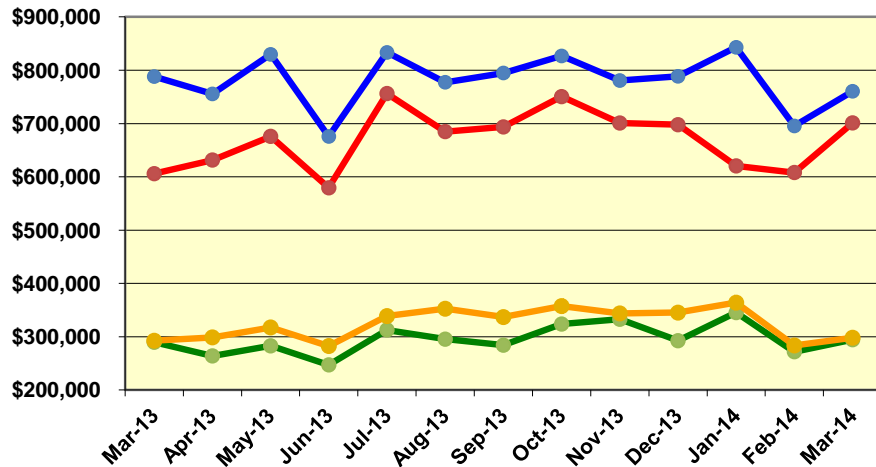
Green Line



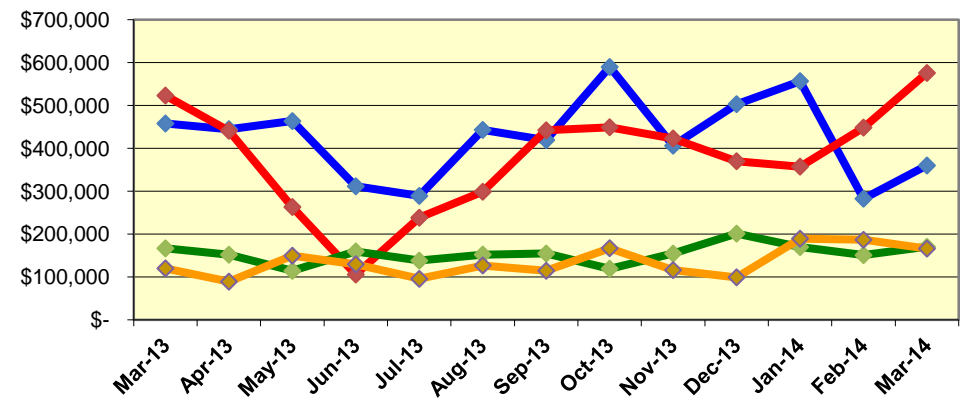
Labor and Material Costs

March 2014

Labor Costs



Material Costs



Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
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LABOR COSTS

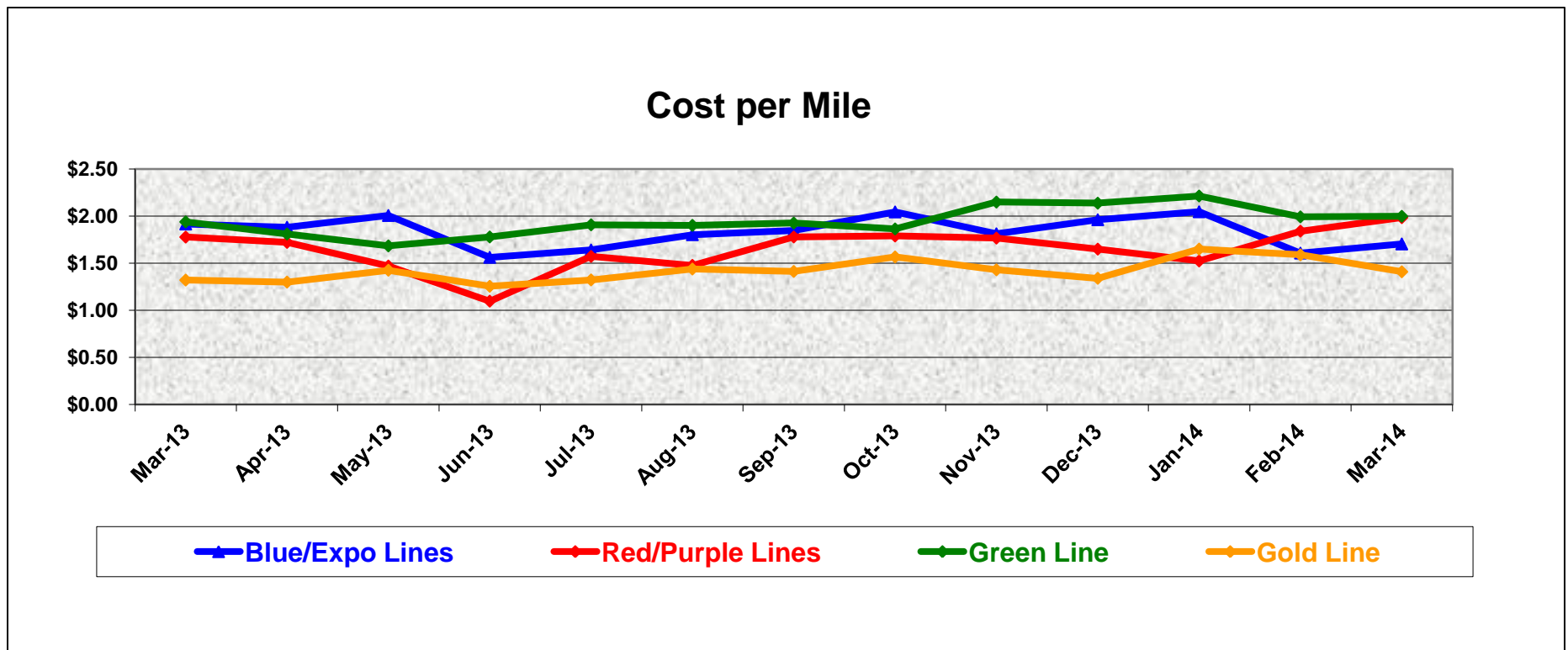
Blue/Expo Lines	\$ 788,111	\$ 755,561	\$ 829,721	\$ 675,752	\$ 833,333	\$ 777,432	\$ 794,828	\$ 826,769	\$ 780,678	\$ 788,589	\$ 842,979	\$ 695,394	\$ 760,511
Red/Purple Lines	\$ 605,903	\$ 631,518	\$ 675,950	\$ 579,395	\$ 756,262	\$ 684,850	\$ 693,597	\$ 750,452	\$ 700,975	\$ 697,759	\$ 620,440	\$ 608,097	\$ 701,156
Green Line	\$ 289,639	\$ 263,955	\$ 282,841	\$ 247,129	\$ 312,740	\$ 295,374	\$ 284,105	\$ 323,749	\$ 332,737	\$ 292,482	\$ 345,262	\$ 271,877	\$ 294,381
Gold Line	\$ 292,452	\$ 298,759	\$ 317,387	\$ 282,541	\$ 338,719	\$ 352,473	\$ 336,795	\$ 357,408	\$ 343,700	\$ 345,170	\$ 363,886	\$ 283,563	\$ 298,069
Totals	\$1,976,105	\$1,949,793	\$2,105,899	\$1,784,817	\$2,241,054	\$2,110,129	\$2,109,325	\$2,258,378	\$2,158,090	\$2,123,999	\$2,172,567	\$1,858,931	\$ 2,054,117

MATERIAL COSTS

Blue/Expo Lines	\$ 457,700	\$ 444,569	\$ 463,311	\$ 311,415	\$ 288,894	\$ 442,803	\$ 419,133	\$ 589,324	\$ 406,032	\$ 502,761	\$ 556,457	\$ 282,466	\$ 359,845
Red/Purple Lines	\$ 522,856	\$ 440,708	\$ 263,158	\$ 105,805	\$ 238,207	\$ 298,670	\$ 441,927	\$ 449,033	\$ 422,849	\$ 369,819	\$ 357,244	\$ 448,225	\$ 575,495
Green Line	\$ 166,766	\$ 151,982	\$ 114,311	\$ 159,526	\$ 138,190	\$ 152,243	\$ 154,678	\$ 119,411	\$ 154,582	\$ 201,035	\$ 169,759	\$ 150,881	\$ 170,250
Gold Line	\$ 120,086	\$ 89,212	\$ 149,564	\$ 129,742	\$ 95,664	\$ 126,942	\$ 114,461	\$ 167,128	\$ 116,167	\$ 99,267	\$ 189,310	\$ 186,640	\$ 166,216
Totals	\$1,267,408	\$1,126,471	\$ 990,344	\$ 706,488	\$ 760,956	\$1,020,659	\$1,130,199	\$1,324,896	\$1,099,631	\$1,172,883	\$1,272,769	\$1,068,212	\$ 1,271,807

Cost Per Mile March 2014

Cost per mile:	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
Blue/Expo Lines	\$1.92	\$1.88	\$2.01	\$1.56	\$1.64	\$1.80	\$1.85	\$2.04	\$1.81	\$1.96	\$2.05	\$1.61	\$1.70
Red/Purple Lines	\$1.78	\$1.72	\$1.47	\$1.10	\$1.57	\$1.48	\$1.78	\$1.79	\$1.77	\$1.65	\$1.52	\$1.84	\$1.98
Green Line	\$1.94	\$1.81	\$1.68	\$1.78	\$1.91	\$1.90	\$1.93	\$1.86	\$2.15	\$2.14	\$2.21	\$1.99	\$2.00
Gold Line	\$1.32	\$1.30	\$1.43	\$1.25	\$1.32	\$1.44	\$1.41	\$1.57	\$1.43	\$1.34	\$1.65	\$1.59	\$1.41



ATU Absences vs. Overtime

March 2014

ABSENCE TYPE and HOURS	3940 Admin.	3941 Blue	3942 Red	3943 Green	3944 Gold	3947 Expo	Total
AWP-ABSENT W/O PERMISSION	-	-	8	-	16	-	24
BER-BEREAVEMENT	-	40	8	24	-	-	72
CTO-COMPENSATORY TIME OFF	12	302	454	142	118	16	1,043
CUT-EMPLOYEE LEAVES EARLY	-	3	-	1	1	-	4
CVA - CASUAL VACATION	-	40	282	60	28	-	410
DSL-DISABILITY LEAVE/LONG	-	200	184	184	80	-	648
EFH-EMG. FLOAT HOL.	-	8	32	16	16	-	72
ETO-EXCUSED TIME OFF	8	53	32	9	73	1	177
FMI-FAM IND INJURY	-	-	64	-	160	-	224
FML-FAMILY CARE LEAVE	168	716	211	364	212	160	1,831
FMS-FAMILY LEAVE SICK	76	116	27	120	16	-	354
HLF-HOLIDAY FLOATING	8	312	296	64	80	-	760
II-INDUSTRIAL INJURY	-	-	-	200	-	-	200
IPD-INJURED PARTIAL DAY	-	-	-	-	6	-	6
JUR-JURY DUTY	-	-	8	-	8	-	16
LC1-LABOR CODE 233	-	292	275	192	136	-	895
LTI-OCCPIL/LONGTRM INJ LEAVE	-	-	-	336	168	-	504
RTO-REQUESTED TIME OFF-NO PAY	-	225	24	8	-	0	257
SCK-SICK PAY	40	72	96	180	118	-	506
SCW-SICK WITHOUT PAY	-	59	128	32	32	-	251
SPN-SCHOOL PARTNER NOT PAID	-	-	-	-	16	-	16
SUS-DISCIPLINARY SUSPENSION	-	32	-	-	40	72	144
TAR-TARDY	-	1	2	3	0	0	5
UNP-UNION BUS PAID	-	-	16	5	7	-	28
VAC-VACATION	40	728	356	196	324	16	1,661
Total Absence Hours	352	3,198	2,504	2,135	1,655	265	10,109
ATU Number of Work Force (assigned)	8	122	112	48	47	5	342
Full Work Force hours/month	1,386	21,143	19,410	8,318	8,145	867	59,269
Absence as a % of Work Force	25%	15%	13%	26%	20%	31%	17%

OVERTIME TYPE and HOURS	3940 Admin.	3941 Blue	3942 Red	3943 Green	3944 Gold	3947 Expo	Total
CTB-COMPENSATORY TIME TO BANK	11	150	174	8	78	8	429
OTP-PREM OVERTIME	656	5,879	5,338	2,112	1,723	244	15,952
WLO-Worked Lunch Overtime	32	158	188	148	90	7	623
Total Overtime Hours	699	6,187	5,700	2,268	1,891	258	17,003
Overtime as a % of Work Force	50%	29%	29%	27%	23%	30%	29%
FTE Calculation - Absence & OT Hou	3940	3941	3942	3943	3944	3947	Total
Absences FTE	2	18	14	12	10	2	58
OTP FTE	4	36	33	13	11	1	98
FTE Difference	-2	-18	-19	-1	-1	1	-40

Note: Overtime also covers other required activities.

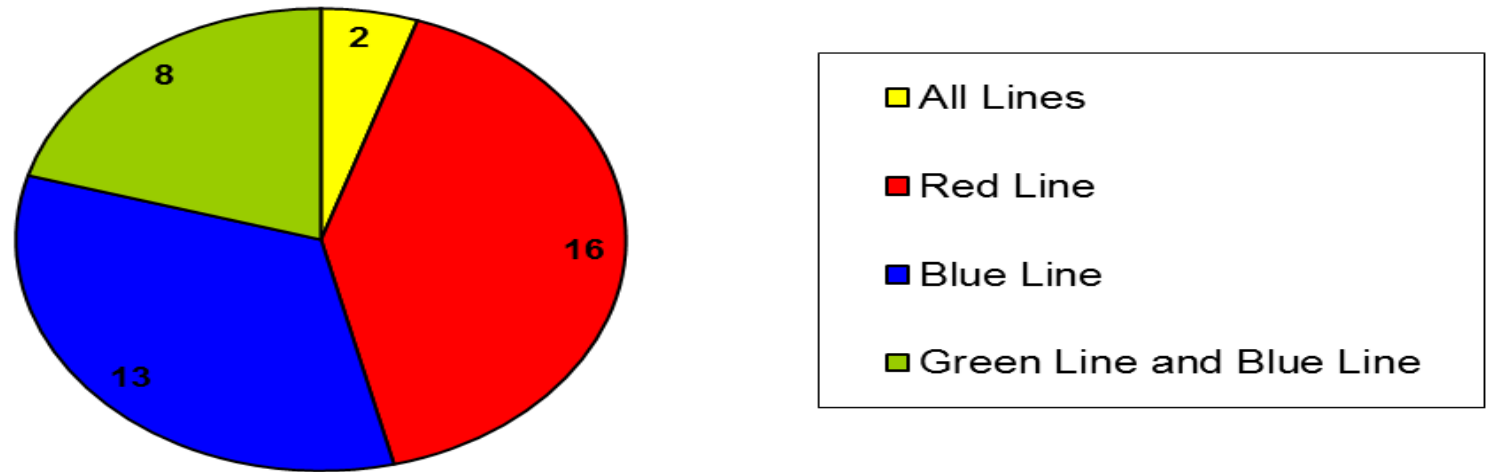


Metro

Rail Vehicle Engineering Project Summary

March 2014

Engineering Technical Specifications 100% Completion - Total of 39 March 2014

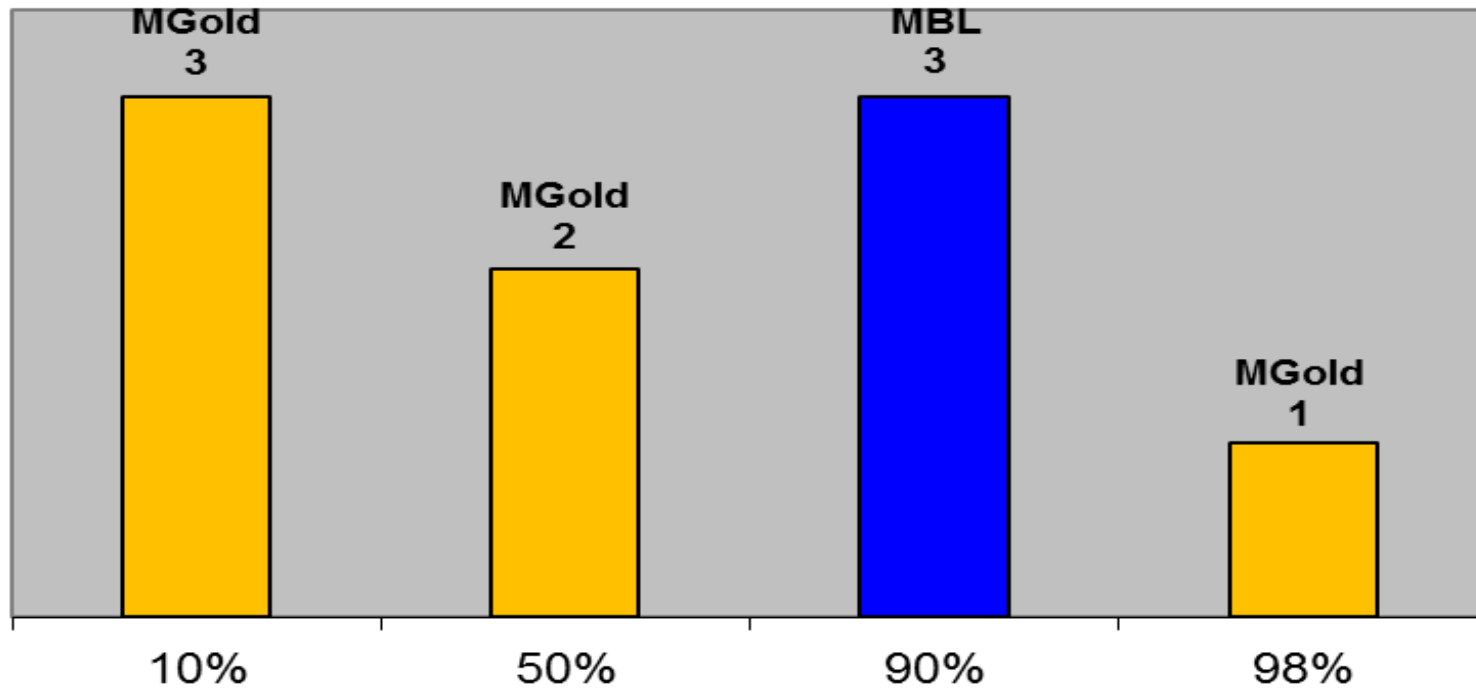


Details of specifications are available upon request.

Rail Vehicle Engineering Project Summary (cont'd)

March 2014

Engineering Technical Specifications Less than 100% Completion - Total of 9 March 2014

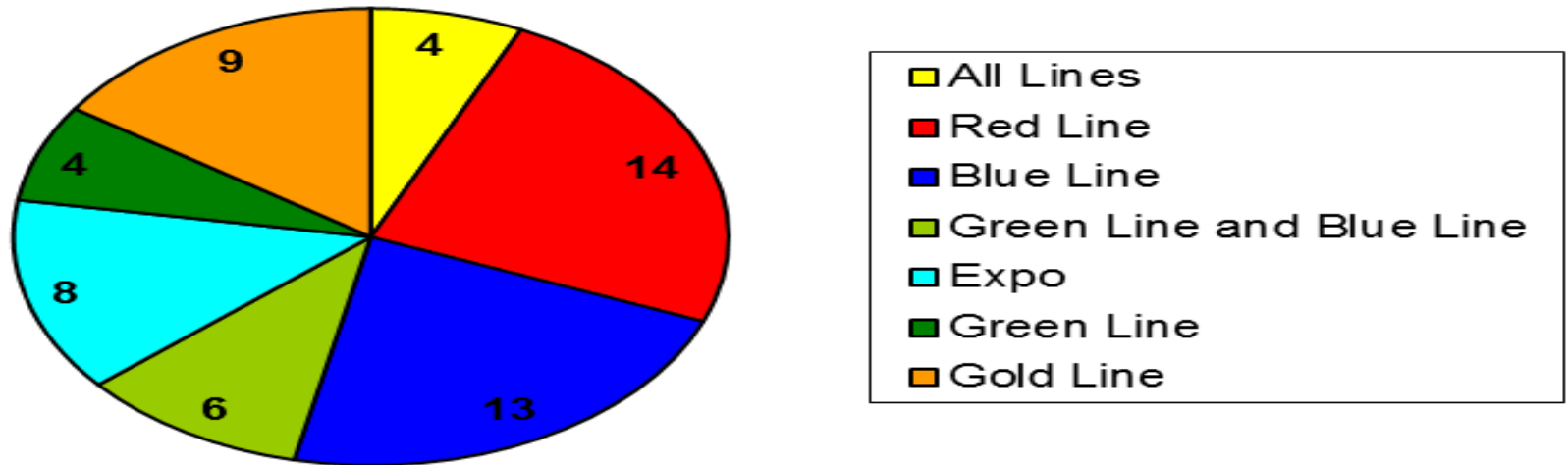


Details of specifications are available upon request.

Rail Vehicle Engineering Project Summary (cont'd)

March 2014

Engineering Projects
100% Completion - Total of 58
March 2014

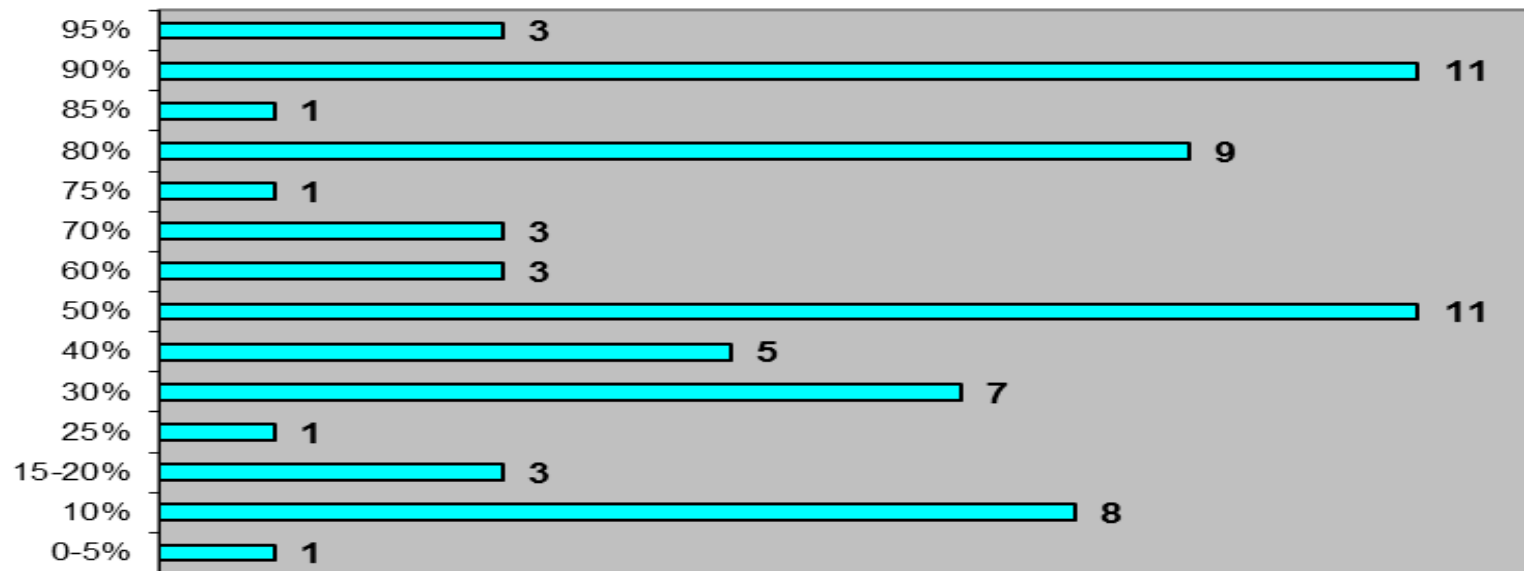


Details of projects are available upon request.

Rail Vehicle Engineering Project Summary (cont'd)

March 2014

Engineering Projects Less than 100% Completion - Total of 67 - All Lines March 2014



Details of projects are available upon request.

QA-Warranty Activities

March 2014

- QA PMI Audits, Spot Checks, Unannounced Audits performed (30)
- On-Going, P2550 parts tracking: Contract Spares, Capital Spares status to ABI
- On-Going, Division Warranty Parts Claims Processing
- P2550 Support of analog converter valves
- P2550 Lamellar Seal removal in progress
- P2550 50 of 50 Cars have new profile connection beam installed. 48 of 50 Cars with replacement resilient pins and bushings and connection beam.
- A650 Base Buy & Option Car Fleet Warranty Truck Frame Mod Campaign 160 Trucks modified to date. MRL Warranty Cost Avoidance savings accrued to date \$2.4 million.
- MBL SmartDrive test installation of 25 vehicles complete
- MBL journal bearing replacement “C” truck program in progress
- MBL LED Destination sign program/ Modified Controller replacement in progress
- MBL/MGL Support of P2000 Air Compressor/ Air dryer
- On-Going Warranty-QA interest oversight & tracking: Overhauls / Mod Programs, (A650/P2000/P2020/865/P2550) Propulsion System, Master Controllers, Capacitor Banks, Air Compressors, Aux Power, Couplers, Gearboxes, Articulation Diaphragms, Friction Brakes, HPT’s, Brake Resistor Grids, T/M’s, MA’s, HVAC, Doors, A/C Motors – (Blowers & Evaporators)

RFS Instruction Department Activities

March 2014

Training classes completed during the month of March 2014

Description	Course Hours	Student Count	Training Hours
<u>Blue & Expo Line Training - (P865/2020 & P2000 LRV):</u>			
RFS 865/2020 COMMUNICATIONS	8	6	48
RFS 865/2020 TRUCKS	24	6	144
RFS 865/2020 HVAC SYSTEM	64	6	384
REFRIGERANT RECOVERY SYSTEMS (608)	16	6	96

Total Blue Line Training (Hours): 672

Red Line Training (Breda A650 HRV):

RFS BRED A 650 ATO SHOP TESTER	24	8	192
RFS BRED A 650 SIGNALRAIL ATO	40	8	192
RFS BRED A 650 GRS A.T.P.	56	8	448

Total Red Line Training (Hours): 832

Gold Line Training (P2550 LRVs):

RFS ANSALDOBREDA 2550 VEHICLE SYSTEMS	40	2	80
RFS ANSALDOBREDA 2550 COMMUNICATIONS	24	5	120
RFS ANSALDOBREDA 2550 INTEGRATED DISPLAY	24	3	72

Total Gold Line Training (Hours): 272

Total RFS Instruction for the month of March 2014 (Hours): 1,776

Other Instruction Activities

Instructor Vacations	88
P865/P2020 Vehicle Course Preparation	32
A650 Vehicle Course Preparation	32
P2550 Vehicle Course Preparation	32
Hegenschiedt Wheel Lathe Powerpoint & Lesson Plan	120

Total Other Instruction Activities 304

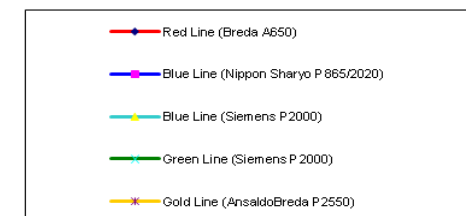
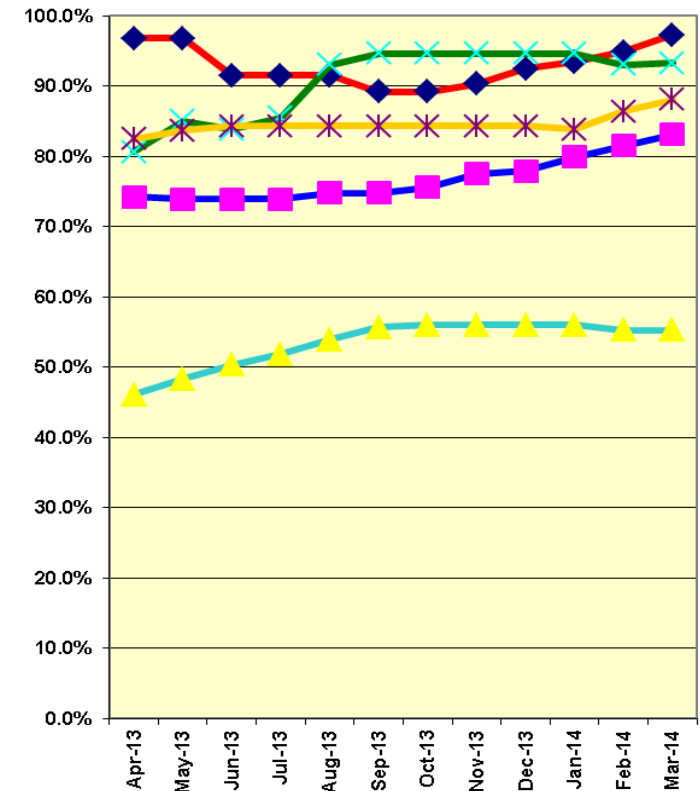
Core Vehicle Training Completed: BLUE RED GREEN GOLD

Percentage of core vehicle training complete: 83.1% 97.3% 93.3% 88.1%

Siemens P2000 training complete: 55.3% N/A N/A N/A

Average Specialist Rail Experience Level in Years: 11.9 10.1 9.9 9.9

Core Training Completed



Variations caused by new hires, employee transfers, & training completed