OIL	MILES	ODOMETER	CAR	Vehicle	LNLNODF1	LNLNODFL	FTP Mean	FFE Me
Z	0	4560.5	F150	1	2.1312257	0	14.97925	22.68
A	5000	9889.666667	F150	1	2.2191215	0	15.349	23.3
Z	0	9995	F150	1	2.2202725	0	14.68766667	22.48
GF4	5000	15285	F150	1	2.2653636	0	15.41166667	23.67
Z	0	15377	F150	1	2.2659863	0	15.008	23
C	5000	20615.66667	F150	1	2.2959437	0	15.13946667	23.31
Z	0	20737.33333	F150	1	2.2965359	0	14.86846667	22.9
Z	0	5536.266667	FUSION	1	0	2.1539778	25.98666667	40.82
A	5000	10835.86667	FUSION	1	0	2.229005	27.14	41.85
Z	0	10964.3	FUSION	1	0	2.2302724	26.27333333	40.96
C	5000	16343.66667	FUSION	1	0	2.2722904	27.23333333	42.16
Z	0	16472.06667	FUSION	1	0	2.2730967	26.38	41.36
D	5000	21730.1	FUSION	1	0	2.3012295	27.14	42.27
Z	0	21874.5	FUSION	1	0	2.3018925	26.3625	41.01
B	5000	27179.5	FUSION	1	0	2.323389	27.26666667	42.28
Z	0	27326.45	FUSION	1	0	2.323917	26.23	40.91
K	5000	32628.1	FUSION	1	0	2.3411257	26.95333333	41.99
Z	0	32799.06667	FUSION	1	0	2.3416284	26.48333333	41.27
Z	0	11113.83333	FUSION	2	0	2.2317275	25.89666667	40.75
GF4	5000	16426	FUSION	2	0	2.2728082	27.26333333	42.68
Z	0	21790.125	FUSION	2	0	2.3015057	26.245	41.33

General Linear Model: FTP Mean versus OIL, CAR, Vehicle

Factor	Type	Levels	Values
OIL	fixed	7	A, B, C, D, GF4, K, Z
CAR	fixed	2	F150, FUSION
Vehicle(CAR)	fixed	3	1, 1, 2

Analysis of Variance for FTP Mean, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
LNLNODFUSION	1	624.873	0.127	0.127	2.82	0.121
OIL	6	2.684	2.787	0.464	10.33	0.001
CAR	1	0.237	0.234	0.234	5.20	0.043
Vehicle(CAR)	1	0.052	0.052	0.052	1.15	0.307
Error	11	0.495	0.495	0.045		
Total	20	628.339				

$S = 0.212062$ $R\text{-}Sq = 99.92\%$ $R\text{-}Sq(adj) = 99.86\%$

Term	Coef	SE Coef	T	P
Constant	18.663	1.485	12.57	0.000
LNLNODFUSION	2.154	1.283	1.68	0.121
OIL				
A	0.1387	0.1539	0.90	0.387

General Linear Model: FFE Mean v

Factor	Type	Levels	Values
OIL	fixed	7	A, B, C, D, G
CAR	fixed	2	F150, FUSI
Vehicle(CAR)	fixed	3	1, 1, 2

Analysis of Variance for FFE Mean

Source	DF	Seq SS	Adj SS	
LNLNODFUSION	1	1596.80	0.	
OIL	6	4.65	5.01	0.84
CAR	1	0.99	0.99	0.99
Vehicle(CAR)	1	0.01	0.01	0
Error	11	0.74	0.74	0.07
Total	20	1603.18		

$S = 0.259038$ $R\text{-}Sq = 99.95\%$ R

Term	Coef	SE Coef	T
Constant	30.279	1.814	16.7
LNLNODFUSION	2.143	1.567	
OIL			
A	-0.0752	0.1880	-0.40

B   0.1985   0.1994   1.00   0.341
C   0.0340   0.1467   0.23   0.821
D   0.1195   0.1950   0.61   0.552
GF4   0.2683   0.1641   1.63   0.130
K   -0.1530   0.2057 -0.74   0.473
CAR
F150   -3.317   1.454   -2.28   0.043
(CAR)Vehicle
 FUSION 1   0.08372 0.07817 1.07   0.307

Unusual Observations for FTP Mean

                      St
Obs FTP Mean   Fit SE Fit Residual Resid
 13 27.1400 27.1400 0.2121   0.0000   * X
 15 27.2667 27.2667 0.2121 -0.0000   * X
 17 26.9533 26.9533 0.2121   0.0000   * X

X denotes an observation whose X value gives it large influence.

Means for Covariates

Covariate   Mean StDev
LNLNODFUSION 1.519 1.101

Least Squares Means for FTP Mean

OIL   Mean SE Mean
A   22.07   0.5415
B   22.13   0.4783
C   21.97   0.5149
D   22.05   0.5035
GF4   22.20   0.5147
K   21.78   0.4584
Z   21.33   0.4963
CAR
F150   18.62   1.9219
FUSION 25.25   0.9911

Tukey Simultaneous Tests
Response Variable FTP Mean
All Pairwise Comparisons among Levels of OIL
OIL = A subtracted from:

     Difference   SE of   Adjusted
OIL   of Means Difference T-Value P-Value
B   0.0598   0.2831   0.211   1.0000

B   0.2414   0.2436   0.99   (
C   0.0391   0.1792   0.22   (
D   0.2716   0.2382   1.14   (
GF4   0.4428   0.2004   2.21
K   -0.0933   0.2513 -0.37   (
CAR
F150   -6.817   1.776   -3.84
(CAR)Vehicle
 FUSION 1 -0.03351 0.09548 -

Unusual Observations for FFE Mea

                      St
Obs FFE Mean   Fit SE Fit Res
 13 42.2657 42.2657 0.2590   0
 15 42.2830 42.2830 0.2590   0
 17 41.9863 41.9863 0.2590   0

X denotes an observation whose X

Means for Covariates

Covariate   Mean StDev
LNLNODFUSION 1.519 1.101

Least Squares Means for FFE Mea

OIL   Mean SE Mean
A   33.46   0.6614
B   33.78   0.5842
C   33.57   0.6290
D   33.81   0.6150
GF4   33.98   0.6287
K   33.44   0.5599
Z   32.71   0.6063
CAR
F150   26.72   2.3476
FUSION 40.35   1.2107

Tukey Simultaneous Tests
Response Variable FFE Mean
All Pairwise Comparisons among L
OIL = A subtracted from:

     Difference   SE of   Adju
OIL   of Means Difference T-Valu
B   0.3167   0.3459   0.916

OIL	Difference of Means	SE of Difference	T-Value	P-Value
C	-0.1047	0.2139	-0.490	0.9985
D	-0.0192	0.2746	-0.070	1.0000
GF4	0.1295	0.2277	0.569	0.9966
K	-0.2918	0.2918	-1.000	0.9437
Z	-0.7447	0.1662	-4.482	0.0116

OIL = B subtracted from:

	Difference	SE of	Adjusted	
OIL	of Means	Difference	T-Value	P-Value
C	-0.1645	0.2748	-0.598	0.9955
D	-0.0789	0.3012	-0.262	1.0000
GF4	0.0698	0.2916	0.239	1.0000
K	-0.3515	0.3008	-1.169	0.8921
Z	-0.8045	0.2378	-3.383	0.0656

OIL = C subtracted from:

	Difference	SE of	Adjusted	
OIL	of Means	Difference	T-Value	P-Value
D	0.0855	0.2690	0.318	0.9999
GF4	0.2343	0.2260	1.037	0.9342
K	-0.1871	0.2815	-0.665	0.9922
Z	-0.6400	0.1640	-3.903	0.0288

OIL = D subtracted from:

	Difference	SE of	Adjusted	
OIL	of Means	Difference	T-Value	P-Value
GF4	0.1487	0.2861	0.520	0.9979
K	-0.2726	0.3042	-0.896	0.9658
Z	-0.7256	0.2310	-3.141	0.0956

OIL = GF4 subtracted from:

	Difference	SE of	Adjusted	
OIL	of Means	Difference	T-Value	P-Value
K	-0.4213	0.2978	-1.415	0.7844
Z	-0.8743	0.1734	-5.042	0.0049

OIL = K subtracted from:

	Difference	SE of	Adjusted	
OIL	of Means	Difference	T-Value	P-Value
Z	-0.4530	0.2455	-1.845	0.5481

OIL	Difference	SE of	
C	0.1143	0.2612	0.437
D	0.3468	0.3355	1.034
GF4	0.5181	0.2782	1.862
K	-0.0180	0.3564	-0.051
Z	-0.7512	0.2030	-3.701

OIL = B subtracted from:

	Difference	SE of	Adju
OIL	of Means	Difference	T-Valu
C	-0.202	0.3357	-0.603
D	0.030	0.3680	0.082
GF4	0.201	0.3562	0.565
K	-0.335	0.3674	-0.911
Z	-1.068	0.2905	-3.676

OIL = C subtracted from:

	Difference	SE of	Adju
OIL	of Means	Difference	T-Valu
D	0.2325	0.3286	0.708
GF4	0.4038	0.2761	1.463
K	-0.1323	0.3438	-0.385
Z	-0.8655	0.2003	-4.321

OIL = D subtracted from:

	Difference	SE of	Adju
OIL	of Means	Difference	T-Valu
GF4	0.171	0.3495	0.490
K	-0.365	0.3716	-0.982
Z	-1.098	0.2821	-3.892

OIL = GF4 subtracted from:

	Difference	SE of	Adju
OIL	of Means	Difference	T-Valu
K	-0.536	0.3638	-1.474
Z	-1.269	0.2118	-5.993

OIL = K subtracted from:

	Difference	SE of	Adju
OIL	of Means	Difference	T-Valu
Z	-0.7331	0.2999	-2.444

Tukey Simultaneous Tests
Response Variable FTP Mean
All Pairwise Comparisons among Levels of CAR
CAR = F150 subtracted from:

CAR	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
FUSION	6.634	2.908	2.281	0.0435

Tukey Simultaneous Tests
Response Variable FFE Mean
All Pairwise Comparisons among L
CAR = F150 subtracted from:

CAR	Difference of Means	SE of Difference	Ad T-V
FUSION	13.63	3.553	3.8:

COMB Mean

17.68005
18.13356
17.40312
18.28121
17.79076
17.97492
17.65342
31.06667
32.21667
31.32667
32.39667
31.51806
32.35142
31.41474
32.45431
31.28133
32.1298
31.57215
30.97766
32.55686
31.40258

versus OIL, CAR, Vehicle

GF4, K, Z
SION

n, using Adjusted SS for Tests

Adj MS   F   P
.13   0.13 1.87 0.199
    12.46 0.000
9 14.73 0.003
0.01 0.12 0.732
ɿ

:-Sq(adj) = 99.92%

      P
70 0.000
ɿ 1.37 0.199

0.697

General Linear Model: COMB Mean versus OIL, CAR, Vehicle

Factor	Type	Levels	Values
OIL	fixed	7	A, B, C, D, GF4, K, Z
CAR	fixed	2	F150, FUSION
Vehicle(CAR)	fixed	3	1, 1, 2

Analysis of Variance for COMB Mean, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
LNLNODFUSION	1	904.06	0.14	0.14	2.74	0.126
OIL	6	3.36	3.55	0.59	11.59	0.000
CAR	1	0.41	0.41	0.41	7.95	0.017
Vehicle(CAR)	1	0.02	0.02	0.02	0.45	0.514
Error	11	0.56	0.56	0.05		
Total	20	908.41				

S = 0.225967   R-Sq = 99.94%   R-Sq(adj) = 99.89%

Term	Coef	SE Coef	T	P
Constant	22.547	1.582	14.25	0.000
LNLNODFUSION	2.264	1.367	1.66	0.126
OIL				
A	0.0772	0.1640	0.47	0.647

0.343	B	0.2213	0.2125	1.04	0.320
0.832	C	0.0389	0.1564	0.25	0.808
0.278	D	0.1686	0.2078	0.81	0.434
l 0.049	GF4	0.3277	0.1749	1.87	0.088
0.718	K	-0.1433	0.2192	-0.65	0.527
	CAR				
0.003	F150	-4.370	1.550	-2.82	0.017
	(CAR)Vehicle				
-0.35 0.732	FUSION 1	0.05615	0.08329	0.67	0.514

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Unusual Observations for COMB Mean

				St		
sidual Resid	Obs	COMB Mean	Fit	SE Fit	Residual	Resid
).0000 * X	13	32.3514	32.3514	0.2260	0.0000	* X
).0000 * X	15	32.4543	32.4543	0.2260	0.0000	* X
).0000 * X	17	32.1298	32.1298	0.2260	0.0000	* X

X value gives it large influence.   X denotes an observation whose X value gives it large influence.

Means for Covariates

Covariate	Mean	StDev
LNLNODFUSION	1.519	1.101

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Least Squares Means for COMB Mean

OIL	Mean	SE Mean
A	26.06	0.5770
B	26.21	0.5096
C	26.02	0.5487
D	26.15	0.5365
GF4	26.31	0.5484
K	25.84	0.4884
Z	25.29	0.5289
CAR		
F150	21.62	2.0479
FUSION	30.36	1.0561

Tukey Simultaneous Tests
Response Variable COMB Mean

Levels of OIL   All Pairwise Comparisons among Levels of OIL
OIL = A subtracted from:

usted		Difference	SE of		Adjusted	
ue P-Value	OIL	of Means	Difference	T-Value	P-Value	
0.9622	B	0.1441	0.3017	0.478	0.9987	

0.9992

0.9350

0.5384

1.0000

0.0398

OIL = B subtracted from:

		Difference	SE of		Adjusted
usted
ue P-Value | OIL | of Means | Difference | T-Value | P-Value

0.9953

1.0000

0.9967

0.9630

0.0414

OIL = C subtracted from:

usted
ue P-Value

0.9892

0.7599

0.9996

0.0149

OIL = D subtracted from:

usted
ue P-Value

0.9985

0.9481

0.0294

OIL = GF4 subtracted from:

usted
ue P-Value

0.7541

0.0013

OIL = K subtracted from:

usted
ue P-Value

0.2661

OIL	Difference of Means	SE of Difference	T-Value	P-Value
C	-0.0383	0.2279	-0.168	1.0000
D	0.0914	0.2926	0.312	0.9999
GF4	0.2505	0.2427	1.032	0.9354
K	-0.2206	0.3109	-0.709	0.9891
Z	-0.7678	0.1771	-4.336	0.0146

OIL = B subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	P-Value
C	-0.1824	0.2928	-0.623	0.9944
D	-0.0527	0.3210	-0.164	1.0000
GF4	0.1064	0.3107	0.342	0.9998
K	-0.3647	0.3205	-1.138	0.9030
Z	-0.9119	0.2534	-3.598	0.0467

OIL = C subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	P-Value
D	0.1297	0.2866	0.453	0.9990
GF4	0.2888	0.2408	1.199	0.8807
K	-0.1822	0.2999	-0.608	0.9951
Z	-0.7294	0.1747	-4.175	0.0188

OIL = D subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	P-Value
GF4	0.1591	0.3049	0.522	0.9979
K	-0.3119	0.3242	-0.962	0.9526
Z	-0.8591	0.2461	-3.491	0.0554

OIL = GF4 subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	P-Value
K	-0.471	0.3174	-1.484	0.7485
Z	-1.018	0.1848	-5.511	0.0025

OIL = K subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	P-Value
Z	-0.5472	0.2616	-2.091	0.4178

Tukey Simultaneous Tests
Response Variable COMB Mean

Levels of CAR   All Pairwise Comparisons among Levels of CAR
                                  CAR = F150 subtracted from:

djusted   Difference   SE of   Adjusted
/alue   P-Value   CAR   of Means Difference T-Value P-Value
37   0.0028   FUSION   8.740   3.099   2.820   0.0167