

**Marshall Test Results****Humboldt Scientific, Inc.**
 ANALYSIS OF COMPACTED BITUMINOUS PAVING MIXTURES  
 BY S.S.D. METHOD

REPORT NUMBER : DATE : 12/02/2006

 CLIENT : Customer Z  
 JOB NUMBER : 34-B321

 PROJECT NUMBER : 1290 SAMPLE NUMBER : 5  
 PROJECT NAME : Sample Marshall Project

 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample

MIX TYPE : R-790

 Date of Sampling : 12/01/2006 Time : 12:00 PM Lot Number : 20  
 Date of Receiving Sample : 12/02/2006 Time : 09:00 AM Lot Size : 600 TON  
 Size of Sample : 8 Nos Area # : - Sender Number : 8576-0

 STABILITY TEST TEMP (°C) : 60.0 NUMBER OF BLOWS ON EACH FACE : 75  
 STABILITY IMMERSION TIME : 35 BITUMEN CONTENT (%) : 3.50  
 BITUMEN TYPE : AC 60/70 METHOD OF DETERMINING FLOW : PEAK

Specimen	A	B	C	D	Average
Diameter (in)	4.000	4.000	4.000	4.000	-
Thickness (in)	2.524	2.524	2.524	2.524	-
Bulk SP GR at 25/25°C	2.552	2.555	2.555	2.554	2.554
Density at 25°C (pcf)	158.8	159.0	159.0	158.9	-
VIM(%)	6.56	6.47	6.44	6.51	6.49
VMA(%)	14.93	14.85	14.82	14.88	14.87
VFB(%)	56.08	56.44	56.57	56.29	56.35
Stability (lbs)	5595.0	9323.0	7218.0	7067.0	7300.8
Flow (0.001 in)	14	21	6	19	15
Remarks					

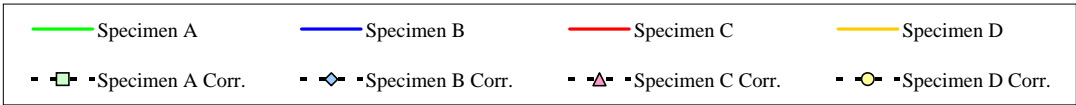
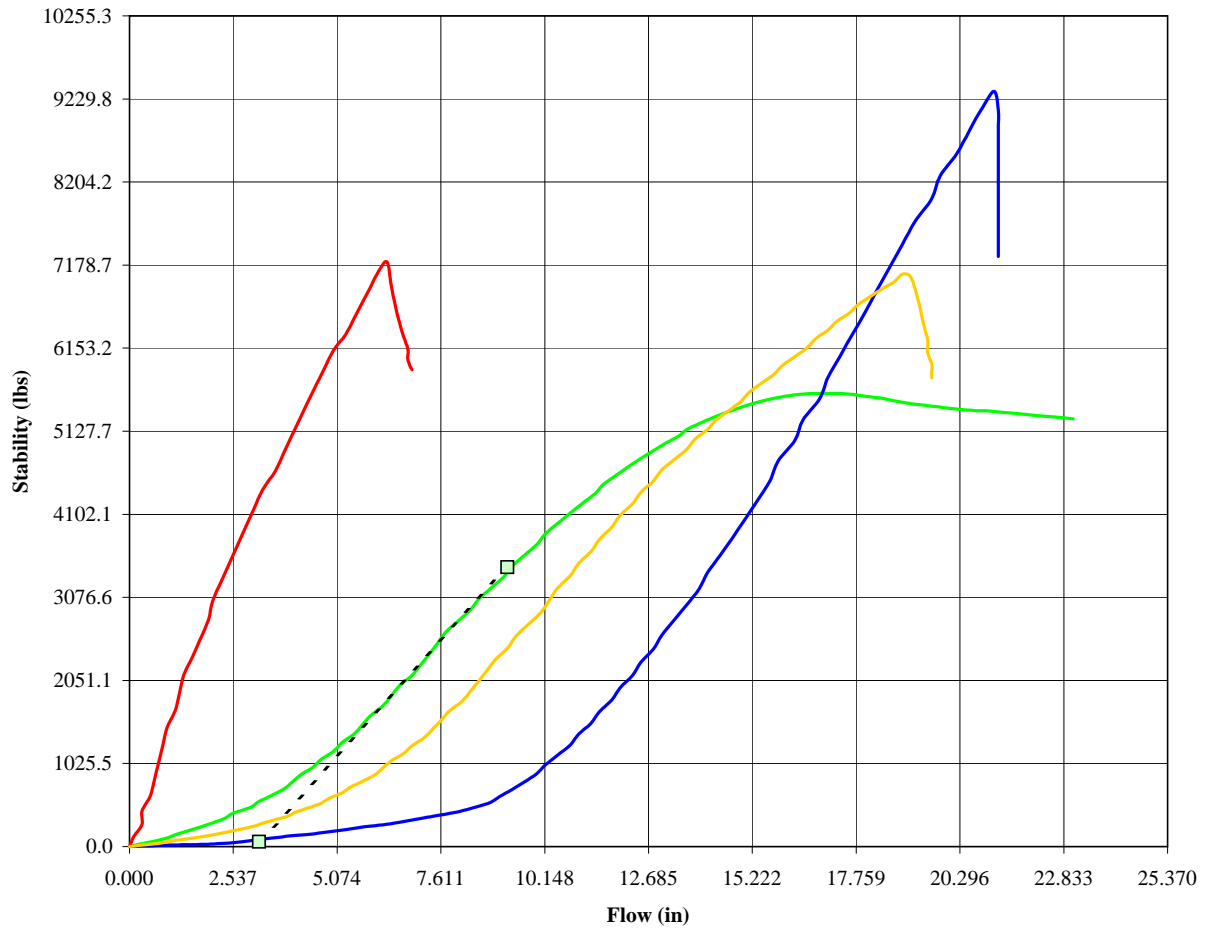
 SAMPLE BY : TESTED BY :  
 SAMPLES BROUGHT IN BY : DATE OF TEST : 12/02/2006  
 SAMPLING METHOD :  
 SAMPLING REPORT NUMBER :  
 TEST METHOD VARIATION :

REMARKS :

Date : 12/02/2006  
 Time : 11:00 AM  
 Project Number : 34-B321  
 Test Method  
 Average Max. Load (lbs) : 7300.8  
 Average Max. Flow (in) : 15.15  
 Temperature (°C) : 60

Specimen	Max. Load (psi)	Max. Flow (in)	Thick-ness (in)	Corr. Load (psi)
A	5595.0	14.07	2.524	5595.0
B	9323.0	21.22	2.524	9323.0
C	7218.0	6.33	2.524	7218.0
D	7067.0	18.98	2.524	7067.0

## Stability vs. Flow



**Marshall Specimen Information Sheet**

**Humboldt Scientific, Inc.**

ANALYSIS OF COMPACTED BITUMINOUS PAVING MIXTURES  
BY S.S.D. METHOD

REPORT NUMBER : DATE : 12/02/2006

CLIENT : Customer Z  
JOB NUMBER : 34-B321  
PROJECT NUMBER : 1290 SAMPLE NUMBER : 5  
PROJECT NAME : Sample Marshall Project  
SAMPLE LOCATION : Road 5  
SAMPLE SOURCE : Asphalt Plant No. 5  
SAMPLE DESCRIPTION : AC Marshall Sample  
MIX TYPE : R-790

Date of Sampling : 12/01/2006 Time : 12:00 PM Lot Number : 20  
Date of Receiving Sample : 12/02/2006 Time : 09:00 AM Lot Size : 600 TON  
Size of Sample : 8 Nos Area # : - Sender Number : 8576-0

SAMPLE BY : TESTED BY :  
SAMPLES BROUGHT IN BY : DATE OF TEST : 12/02/2006  
SAMPLING METHOD :  
SAMPLING REPORT NUMBER :  
TEST METHOD VARIATION :

REMARKS :

BITUMEN PERCENT : 3.50 NUMBER OF BLOWS ON EACH FACE : 75  
BITUMEN TYPE : AC 60/70 IMMERSION TIME : 35  
SP. GR. BITUMEN : 1.017 TEST TEMP (°c) : 60.0  
BULK SP GR. AGGREGATE : 2.895 METHOD OF DETERMINING FLOW : PEAK  
EFF. SP. GR. AGGREGATE : 2.909  
DESIGN BULK SP. GR. : 2.569

**Calculated Results**

SPECIMEN	A	B	C	D	AVERAGE
DIAMETER (in)	4.000	4.000	4.000	4.000	-
THICKNESS (in)	2.524	2.524	2.524	2.524	-
DRY MASS IN AIR (g)	1326.8	1326.3	1326.5	1326.8	-
SSD MASS IN AIR (g)	1329.2	1328.4	1329.8	1329.0	-
MASS IN WATER (g)	809.3	809.2	810.7	809.4	-
BULK VOLUME (CC)	519.900	519.200	519.100	519.600	-
BULK SPECIFIC GRAVITY	2.552	2.555	2.555	2.554	2.554
DENSITY AT 25°C (pcf)	158.8	159.0	159.0	158.9	-
AVERAGE BULK SP. GR.					
MAXIMUM THEO. SP. GR.	2.731	2.731	2.731	2.731	2.731
VOIDS IN MIX (%)	6.6	6.5	6.4	6.5	6.5
BITUMEN BY VOLUME (%)	8.8	8.8	8.8	8.8	-
V.M.A. (%)	14.9	14.8	14.8	14.9	14.9
V.F.B. (%)	56.1	56.4	56.6	56.3	56.3
MAX LOAD READING (lbs)	5595.0	9323.0	7218.0	7067.0	7300.8
CORRECTED MAX LOAD (lbs)	5595.0	9323.0	7218.0	7067.0	7300.8
FLOW (in)	0.138	0.208	0.062	0.186	0.148
FLOW (0.001 in)	14	21	6	19	15

**Marshall Test Specimen A Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
 PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project  
  
 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen A Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
0	0.1	62.000	0.0	0.000	0
1	0.1	62.000	0.0	0.000	0
2	0.1	97.000	35.0	0.003	0
3	0.1	131.000	69.0	0.006	1
4	0.1	168.000	106.0	0.009	1
5	0.1	209.000	147.0	0.011	1
6	0.1	255.000	193.0	0.014	1
7	0.1	304.000	242.0	0.017	2
8	0.1	353.000	291.0	0.020	2
9	0.1	412.000	350.0	0.023	2
10	0.1	475.000	413.0	0.025	3
11	0.1	542.000	480.0	0.029	3
12	0.1	614.000	552.0	0.031	3
13	0.1	689.000	627.0	0.034	3
14	0.1	769.000	707.0	0.037	4
15	0.1	854.000	792.0	0.039	4
16	0.1	944.000	882.0	0.041	4
17	0.1	1037.000	975.0	0.044	4
18	0.1	1135.000	1073.0	0.046	5
19	0.1	1236.000	1174.0	0.049	5
20	0.1	1343.000	1281.0	0.051	5
21	0.1	1453.000	1391.0	0.054	5
22	0.1	1566.000	1504.0	0.056	6
23	0.1	1683.000	1621.0	0.058	6
24	0.1	1801.000	1739.0	0.061	6
25	0.2	1923.000	1861.0	0.063	6
26	0.2	2049.000	1987.0	0.065	7
27	0.2	2175.000	2113.0	0.068	7
28	0.2	2301.000	2239.0	0.070	7
29	0.2	2430.000	2368.0	0.072	7
30	0.2	2564.000	2502.0	0.074	8
31	0.2	2703.000	2641.0	0.076	8
32	0.2	2842.000	2780.0	0.079	8

**Marshall Test Specimen A Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
 PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project  
  
 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen A Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
33	0.2	2982.000	2920.0	0.082	8
34	0.2	3117.000	3055.0	0.084	9
35	0.2	3253.000	3191.0	0.087	9
36	0.2	3390.000	3328.0	0.090	9
37	0.2	3523.000	3461.0	0.092	9
38	0.2	3658.000	3596.0	0.095	10
39	0.2	3792.000	3730.0	0.098	10
40	0.2	3922.000	3860.0	0.100	10
41	0.2	4050.000	3988.0	0.103	10
42	0.2	4178.000	4116.0	0.106	11
43	0.2	4300.000	4238.0	0.109	11
44	0.2	4420.000	4358.0	0.112	11
45	0.2	4535.000	4473.0	0.114	12
46	0.2	4646.000	4584.0	0.117	12
47	0.2	4752.000	4690.0	0.120	12
48	0.2	4854.000	4792.0	0.123	12
49	0.2	4949.000	4887.0	0.126	13
50	0.2	5042.000	4980.0	0.129	13
51	0.2	5127.000	5065.0	0.132	13
52	0.2	5209.000	5147.0	0.134	14
53	0.2	5286.000	5224.0	0.137	14
54	0.2	5352.000	5290.0	0.140	14
55	0.2	5410.000	5348.0	0.143	15
56	0.2	5465.000	5403.0	0.146	15
57	0.2	5517.000	5455.0	0.149	15
58	0.2	5560.000	5498.0	0.152	15
59	0.2	5596.000	5534.0	0.155	16
60	0.2	5624.000	5562.0	0.158	16
61	0.2	5642.000	5580.0	0.161	16
62	0.3	5655.000	5593.0	0.165	17
63	0.3	5657.000	5595.0	0.168	17
64	0.3	5654.000	5592.0	0.171	17
65	0.3	5642.000	5580.0	0.174	18

### Marshall Test Specimen A Tabulated Data

#### Humboldt Scientific, Inc.

CLIENT : Customer Z  
JOB NUMBER : 34-B321  
  
PROJECT NUMBER : 1290  
PROJECT NAME : Sample Marshall Project  
  
SAMPLE LOCATION : Road 5  
SAMPLE SOURCE : Asphalt Plant No. 5  
SAMPLE DESCRIPTION : AC Marshall Sample  
SAMPLE NUMBER : 5  
  
MIX TYPE : R-790  
Remarks :

#### Specimen A Tabulated Data

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
66	0.3	5622.000	5560.0	0.177	18
67	0.3	5598.000	5536.0	0.181	18
68	0.3	5565.000	5503.0	0.184	19
69	0.3	5538.000	5476.0	0.187	19
70	0.3	5516.000	5454.0	0.190	19
71	0.3	5495.000	5433.0	0.194	20
72	0.3	5476.000	5414.0	0.197	20
73	0.3	5460.000	5398.0	0.200	20
74	0.3	5448.000	5386.0	0.203	21
75	0.3	5439.000	5377.0	0.207	21
76	0.3	5424.000	5362.0	0.210	21
77	0.3	5410.000	5348.0	0.213	22
78	0.3	5394.000	5332.0	0.216	22
79	0.3	5381.000	5319.0	0.219	22
80	0.3	5365.000	5303.0	0.223	23
81	0.3	5349.000	5287.0	0.226	23
82	0.3	5342.000	5280.0	0.227	23

Test Performed By:

Checked By:

**Marshall Test Specimen B Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
 PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project  
  
 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen B Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
0	0.1	35.000	0.0	0.000	0
1	0.1	38.000	3.0	0.001	0
2	0.1	44.000	9.0	0.004	0
3	0.1	49.000	14.0	0.008	1
4	0.1	55.000	20.0	0.011	1
5	0.1	58.000	23.0	0.014	1
6	0.1	64.000	29.0	0.018	2
7	0.1	70.000	35.0	0.021	2
8	0.1	79.000	44.0	0.024	2
9	0.1	96.000	61.0	0.027	3
10	0.1	114.000	79.0	0.030	3
11	0.1	132.000	97.0	0.033	3
12	0.1	151.000	116.0	0.036	4
13	0.1	169.000	134.0	0.039	4
14	0.1	187.000	152.0	0.043	4
15	0.1	205.000	170.0	0.046	5
16	0.1	225.000	190.0	0.049	5
17	0.1	245.000	210.0	0.052	5
18	0.1	267.000	232.0	0.055	6
19	0.1	287.000	252.0	0.058	6
20	0.1	312.000	277.0	0.062	6
21	0.1	335.000	300.0	0.065	7
22	0.1	361.000	326.0	0.068	7
23	0.1	389.000	354.0	0.071	7
24	0.1	420.000	385.0	0.074	8
25	0.1	452.000	417.0	0.078	8
26	0.1	490.000	455.0	0.081	8
27	0.1	533.000	498.0	0.084	9
28	0.1	584.000	549.0	0.087	9
29	0.1	652.000	617.0	0.089	9
30	0.1	738.000	703.0	0.092	9
31	0.1	832.000	797.0	0.095	10
32	0.2	934.000	899.0	0.098	10

**Marshall Test Specimen B Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
 PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project  
  
 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen B Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
33	0.2	1044.000	1009.0	0.100	10
34	0.2	1163.000	1128.0	0.103	10
35	0.2	1289.000	1254.0	0.106	11
36	0.2	1420.000	1385.0	0.108	11
37	0.2	1557.000	1522.0	0.111	11
38	0.2	1698.000	1663.0	0.113	11
39	0.2	1843.000	1808.0	0.116	12
40	0.2	1993.000	1958.0	0.118	12
41	0.2	2149.000	2114.0	0.121	12
42	0.2	2309.000	2274.0	0.123	12
43	0.2	2471.000	2436.0	0.126	13
44	0.2	2643.000	2608.0	0.128	13
45	0.2	2830.000	2795.0	0.131	13
46	0.2	3019.000	2984.0	0.134	14
47	0.2	3215.000	3180.0	0.137	14
48	0.2	3417.000	3382.0	0.139	14
49	0.2	3625.000	3590.0	0.142	14
50	0.2	3844.000	3809.0	0.145	15
51	0.2	4071.000	4036.0	0.148	15
52	0.2	4306.000	4271.0	0.151	15
53	0.2	4547.000	4512.0	0.154	16
54	0.2	4795.000	4760.0	0.156	16
55	0.2	5047.000	5012.0	0.160	16
56	0.2	5304.000	5269.0	0.162	16
57	0.2	5565.000	5530.0	0.166	17
58	0.2	5829.000	5794.0	0.168	17
59	0.2	6100.000	6065.0	0.171	17
60	0.2	6371.000	6336.0	0.174	18
61	0.2	6641.000	6606.0	0.177	18
62	0.2	6919.000	6884.0	0.180	18
63	0.2	7198.000	7163.0	0.183	19
64	0.2	7474.000	7439.0	0.186	19
65	0.2	7754.000	7719.0	0.189	19



**Marshall Test Specimen B Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321

PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project

SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5

MIX TYPE : R-790  
 Remarks :

**Specimen B Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
66	0.2	8033.000	7998.0	0.193	20
67	0.2	8310.000	8275.0	0.195	20
68	0.3	8589.000	8554.0	0.199	20
69	0.3	8867.000	8832.0	0.202	21
70	0.3	9139.000	9104.0	0.205	21
71	0.3	9358.000	9323.0	0.208	21
72	0.3	9129.000	9094.0	0.209	21
73	0.3	8893.000	8858.0	0.209	21
74	0.3	8694.000	8659.0	0.209	21
75	0.3	8517.000	8482.0	0.209	21
76	0.3	8362.000	8327.0	0.209	21
78	0.3	8086.000	8051.0	0.209	21
81	0.3	7748.000	7713.0	0.209	21
82	0.3	7648.000	7613.0	0.209	21
83	0.3	7554.000	7519.0	0.209	21
84	0.3	7482.000	7447.0	0.209	21
85	0.3	7427.000	7392.0	0.209	21
86	0.3	7371.000	7336.0	0.209	21
87	0.3	7318.000	7283.0	0.209	21
88	0.3	7318.000	7283.0	0.209	21

Test Performed By:

Checked By:

**Marshall Test Specimen C Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
 PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project  
  
 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen C Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
0	0.0	84.000	0.0	0.000	0
1	0.0	207.000	123.0	0.001	0
2	0.0	355.000	271.0	0.003	0
3	0.0	522.000	438.0	0.003	0
4	0.0	708.000	624.0	0.005	1
5	0.0	908.000	824.0	0.006	1
6	0.0	1118.000	1034.0	0.007	1
7	0.0	1331.000	1247.0	0.008	1
8	0.0	1548.000	1464.0	0.009	1
9	0.0	1764.000	1680.0	0.011	1
10	0.0	1978.000	1894.0	0.012	1
11	0.0	2196.000	2112.0	0.013	1
12	0.0	2412.000	2328.0	0.015	2
13	0.1	2644.000	2560.0	0.017	2
14	0.1	2883.000	2799.0	0.019	2
15	0.1	3119.000	3035.0	0.020	2
16	0.1	3351.000	3267.0	0.022	2
17	0.1	3582.000	3498.0	0.024	2
18	0.1	3810.000	3726.0	0.026	3
19	0.1	4037.000	3953.0	0.028	3
20	0.1	4264.000	4180.0	0.030	3
21	0.1	4489.000	4405.0	0.032	3
22	0.1	4713.000	4629.0	0.035	4
23	0.1	4937.000	4853.0	0.037	4
24	0.1	5158.000	5074.0	0.039	4
25	0.1	5371.000	5287.0	0.041	4
26	0.1	5585.000	5501.0	0.043	4
27	0.1	5796.000	5712.0	0.045	5
28	0.1	6002.000	5918.0	0.047	5
29	0.1	6208.000	6124.0	0.049	5
30	0.1	6409.000	6325.0	0.052	5
31	0.1	6608.000	6524.0	0.054	5
32	0.1	6803.000	6719.0	0.056	6

### Marshall Test Specimen C Tabulated Data

#### Humboldt Scientific, Inc.

CLIENT : Customer Z  
JOB NUMBER : 34-B321

PROJECT NUMBER : 1290  
PROJECT NAME : Sample Marshall Project

SAMPLE LOCATION : Road 5  
SAMPLE SOURCE : Asphalt Plant No. 5  
SAMPLE DESCRIPTION : AC Marshall Sample  
SAMPLE NUMBER : 5

MIX TYPE : R-790  
Remarks :

#### Specimen C Tabulated Data

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
33	0.1	6998.000	6914.0	0.058	6
34	0.1	7189.000	7105.0	0.060	6
35	0.1	7302.000	7218.0	0.062	6
36	0.1	7014.000	6930.0	0.063	6
37	0.1	6758.000	6674.0	0.064	7
38	0.1	6551.000	6467.0	0.065	7
39	0.1	6375.000	6291.0	0.066	7
40	0.1	6223.000	6139.0	0.067	7
41	0.1	6090.000	6006.0	0.067	7
42	0.1	5970.000	5886.0	0.068	7
43	0.1	5970.000	5886.0	0.068	7

Test Performed By:

Checked By:

### Marshall Test Specimen D Tabulated Data

#### Humboldt Scientific, Inc.

CLIENT : Customer Z  
 JOB NUMBER : 34-B321

PROJECT NUMBER : 1290  
 PROJECT NAME : Sample Marshall Project

SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5

MIX TYPE : R-790  
 Remarks :

#### Specimen D Tabulated Data

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
0	0.1	50.000	0.0	0.000	0
1	0.1	58.000	8.0	0.001	0
2	0.1	74.000	24.0	0.004	0
3	0.1	91.000	41.0	0.007	1
4	0.1	110.000	60.0	0.009	1
5	0.1	132.000	82.0	0.012	1
6	0.1	154.000	104.0	0.015	2
7	0.1	178.000	128.0	0.018	2
8	0.1	205.000	155.0	0.021	2
9	0.1	236.000	186.0	0.024	2
10	0.1	269.000	219.0	0.027	3
11	0.1	304.000	254.0	0.030	3
12	0.1	340.000	290.0	0.032	3
13	0.1	380.000	330.0	0.035	4
14	0.1	425.000	375.0	0.038	4
15	0.1	475.000	425.0	0.040	4
16	0.1	528.000	478.0	0.043	4
17	0.1	585.000	535.0	0.046	5
18	0.1	646.000	596.0	0.048	5
19	0.1	711.000	661.0	0.051	5
20	0.1	781.000	731.0	0.053	5
21	0.1	856.000	806.0	0.056	6
22	0.1	935.000	885.0	0.059	6
23	0.1	1020.000	970.0	0.061	6
24	0.1	1107.000	1057.0	0.063	6
25	0.1	1199.000	1149.0	0.066	7
26	0.1	1295.000	1245.0	0.068	7
27	0.1	1397.000	1347.0	0.071	7
28	0.1	1503.000	1453.0	0.073	7
29	0.1	1612.000	1562.0	0.075	8
30	0.1	1726.000	1676.0	0.077	8
31	0.1	1843.000	1793.0	0.080	8
32	0.1	1966.000	1916.0	0.082	8

### Marshall Test Specimen D Tabulated Data

#### Humboldt Scientific, Inc.

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 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

#### Specimen D Tabulated Data

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
33	0.1	2092.000	2042.0	0.084	9
34	0.1	2223.000	2173.0	0.086	9
35	0.1	2357.000	2307.0	0.088	9
36	0.2	2502.000	2452.0	0.091	9
37	0.2	2649.000	2599.0	0.093	9
38	0.2	2795.000	2745.0	0.096	10
39	0.2	2943.000	2893.0	0.099	10
40	0.2	3092.000	3042.0	0.101	10
41	0.2	3241.000	3191.0	0.103	10
42	0.2	3391.000	3341.0	0.106	11
43	0.2	3541.000	3491.0	0.108	11
44	0.2	3691.000	3641.0	0.111	11
45	0.2	3840.000	3790.0	0.113	11
46	0.2	3991.000	3941.0	0.116	12
47	0.2	4138.000	4088.0	0.118	12
48	0.2	4280.000	4230.0	0.121	12
49	0.2	4422.000	4372.0	0.123	12
50	0.2	4561.000	4511.0	0.126	13
51	0.2	4698.000	4648.0	0.128	13
52	0.2	4827.000	4777.0	0.131	13
53	0.2	4953.000	4903.0	0.134	14
54	0.2	5077.000	5027.0	0.136	14
55	0.2	5196.000	5146.0	0.139	14
56	0.2	5310.000	5260.0	0.141	14
57	0.2	5426.000	5376.0	0.144	15
58	0.2	5542.000	5492.0	0.147	15
59	0.2	5655.000	5605.0	0.149	15
60	0.2	5769.000	5719.0	0.152	15
61	0.2	5879.000	5829.0	0.155	16
62	0.2	5988.000	5938.0	0.157	16
63	0.2	6100.000	6050.0	0.160	16
64	0.2	6210.000	6160.0	0.163	17
65	0.2	6318.000	6268.0	0.165	17

**Marshall Test Specimen D Tabulated Data**

**Humboldt Scientific, Inc.**

CLIENT : Customer Z  
 JOB NUMBER : 34-B321  
  
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 SAMPLE LOCATION : Road 5  
 SAMPLE SOURCE : Asphalt Plant No. 5  
 SAMPLE DESCRIPTION : AC Marshall Sample  
 SAMPLE NUMBER : 5  
  
 MIX TYPE : R-790  
 Remarks :

**Specimen D Tabulated Data**

Read Number	Stability (lbs)	Flow (in)	Corrected Stability (lbs)	Corrected Flow (in)	Flow (0.001 in)
66	0.2	6426.000	6376.0	0.168	17
67	0.2	6529.000	6479.0	0.170	17
68	0.2	6631.000	6581.0	0.173	18
69	0.2	6732.000	6682.0	0.175	18
70	0.2	6836.000	6786.0	0.178	18
71	0.2	6931.000	6881.0	0.181	18
72	0.2	7024.000	6974.0	0.184	19
73	0.2	7117.000	7067.0	0.186	19
74	0.2	7077.000	7027.0	0.188	19
75	0.3	6746.000	6696.0	0.190	19
76	0.3	6501.000	6451.0	0.191	19
77	0.3	6309.000	6259.0	0.192	20
78	0.3	6149.000	6099.0	0.192	20
79	0.3	6014.000	5964.0	0.193	20
80	0.3	5894.000	5844.0	0.193	20
81	0.3	5839.000	5789.0	0.193	20

Test Performed By:

Checked By: