

11-5-2008

Ex. 280-US-431

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Stream: Sprague
 Site: 643
 (Sprague River)

Date: 9/22/1990

Habitat: run

Flow: Low

(1) Level Loop Survey (BM & HP)

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|---------------|------------|------------|------------|--------------|
| BM | 3.38 | 103.38 | | |
| HP1 | | | 7.26 | 96.12 |
| HP2 | | | 4.78 | 98.60 |
| HP3 | | | 4.27 | 99.11 |
| TP | | | | |
| HP3 | 4.10 | 103.21 | 4.61 | 98.60 |
| HP2 | | | 7.09 | 96.12 |
| HP1 | | | 3.21 | 100.00 |
| BM | | | | |

Comment:

Date: 4/4/1991

Habitat: run

Flow: Mid

(1) Level Loop Survey

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|---------------|------------|------------|------------|--------------|
| BM | 2.64 | 102.64 | | |
| HP1 | | | 6.54 | 96.10 |
| HP2 | | | 4.06 | 98.58 |
| HP3 | | | 3.55 | 99.09 |
| TP | | | | |
| HP3 | 3.67 | 102.76 | 4.18 | 98.58 |
| HP2 | | | 6.66 | 96.10 |
| HP1 | | | 2.76 | 100.00 |
| BM | | | | |

Comment:

Date: 6/28/1993

Habitat: run

Flow: High

(1) Level Loop Survey

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|---------------|------------|------------|------------|--------------|
| BM | 1.33 | 101.33 | | |
| HP1 | | | 5.22 | 96.11 |
| HP2 | | | 2.74 | 98.59 |
| HP3 | | | 2.23 | 99.10 |
| TP | | | | |
| HP3 | 2.19 | 101.29 | 2.70 | 98.59 |
| HP2 | | | 5.18 | 96.11 |
| HP1 | | | 1.29 | 100.00 |
| BM | | | | |

Comment:

(2) Water Surface Elevation (WSE) Survey

| | L/R WSE (ft) | Sta (ft) | HI (ft) | FS (ft) | Rod (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|-----|-----------------|-------------|------------|--------------|--------------|----------------|--------------------|------------|
| TR1 | LWSE RWSE | 349.0 | 100.06 | 7.52 7.56 | 0.00 0.00 | 92.54 92.50 | 92.52 | 78.83 |
| TR2 | LWSE RWSE | 523.5 | 100.75 | 8.22 8.22 | 0.00 0.00 | 92.53 92.53 | 92.53 | 77.66 |
| TR3 | LWSE RWSE | 610.8 | 100.75 | 8.20 8.19 | 0.00 0.00 | 92.55 92.56 | 92.56 | 81.65 |
| | | | | | | | Ave Q= | 79.38 |

Note:

WSE slope = 0.013%

(2) Water Surface Elevation (WSE) Survey

| | L/R WSE (ft) | Sta (ft) | HI (ft) | FS (ft) | Rod (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|-----|-----------------|-------------|------------|--------------|--------------|----------------|--------------------|------------|
| TR1 | LWSE RWSE | 349.0 | 102.76 | 9.59 9.58 | 0.00 0.00 | 93.17 93.18 | 93.18 | 303.34 |
| TR2 | LWSE RWSE | 523.5 | 102.76 | 9.55 9.48 | 0.00 0.00 | 93.21 93.28 | 93.25 | 306.88 |
| TR3 | LWSE RWSE | 610.8 | 102.76 | 9.45 9.40 | 0.00 0.00 | 93.31 93.36 | 93.34 | 299.48 |
| | | | | | | | Ave Q= | 303.23 |

Note:

WSE slope = 0.061%

(2) Water Surface Elevation (WSE) Survey

| | L/R WSE (ft) | Sta (ft) | HI (ft) | FS (ft) | Rod (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|-----|-----------------|-------------|------------|--------------|--------------|----------------|--------------------|------------|
| TR1 | LWSE RWSE | 349.0 | 101.29 | 8.00 8.03 | 0.00 0.00 | 93.29 93.26 | 93.28 | |
| TR2 | LWSE RWSE | 523.5 | 101.29 | 7.94 7.92 | 0.00 0.00 | 93.35 93.37 | 93.36 | 322.28 |
| TR3 | LWSE RWSE | 610.8 | 101.29 | 7.83 7.83 | 0.00 0.00 | 93.46 93.46 | 93.46 | |
| | | | | | | | Ave Q= | 322.28 |

Note:

WSE slope = 0.071%


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RUN                MID                TRANSECT 1
IOC                1101100000001000101000
QARD 25.0
QARD 50.0
QARD 79.4
QARD 100.0
QARD 150.0
QARD 200.0
QARD 250.0
QARD 303.2
QARD 322.3
QARD 350.0
QARD 400.0
QARD 450.0
QARD 500.0
QARD 550.0
QARD 600.0
QARD 650.0
QARD 700.0
QARD 750.0
QARD 800.0
QARD 850.0
QARD 900.0
QARD 950.0
QARD 1000.
QARD 1100.
QARD 1200.
QARD 1300.
QARD 1400.
QARD 1600.
QARD 1800.
QARD 2000.
XSEC1000.0        0.00 1.0        89.68  0.00061
1000.0  0.095.34  2.694.70  5.493.18  5.693.08 12.090.98 18.090.88
1000.0  24.090.08 30.089.98 36.089.78 42.089.88 48.089.68 54.089.68
1000.0  60.089.98 66.090.18 72.090.33 78.090.48 84.091.28 90.091.58
1000.0  96.091.48102.091.38112.090.78118.091.28121.092.28124.293.18
1000.0131.094.38
NS 1000.0        1.1        1.1        2.2        2.2 .3    2.7 .2    2.7
NS 1000.0        2.7        2.7        2.9        2.9        4.9        4.9
NS 1000.0        4.9        4.9        4.2        4.2        4.2        4.2
NS 1000.0        4.2        4.2        2.9 .15   2.9 .2    2.9        2.2
NS 1000.0        2.2
CAL11000.0       93.18       303.2
VEL11000.0                0.00 0.01 0.06 0.66 0.84 0.86 0.97 1.87 1.65
VEL11000.0  1.25 1.27 1.17 1.34 1.16 1.42 1.40 1.31 0.93 0.01 0.01 0.01
VEL11000.0
CAL21000.0       92.52       79.4
VEL21000.0
VEL21000.0
VEL21000.0
CAL31000.0       93.28       322.3
VEL31000.0
VEL31000.0
VEL31000.0
ENDJ

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RUN                                MID                                TRANSECT 2
IOC      1101100000001000101000
QARD 25.0
QARD 50.0
QARD 79.4
QARD 100.0
QARD 150.0
QARD 200.0
QARD 250.0
QARD 303.2
QARD 322.3
QARD 350.0
QARD 400.0
QARD 450.0
QARD 500.0
QARD 550.0
QARD 600.0
QARD 650.0
QARD 700.0
QARD 750.0
QARD 800.0
QARD 850.0
QARD 900.0
QARD 950.0
QARD 1000.
QARD 1100.
QARD 1200.
QARD 1300.
QARD 1400.
QARD 1600.
QARD 1800.
QARD 2000.
XSEC1000.0      0.00 1.0      90.25  0.00061
1000.0  0.094.39  1.694.25  1.991.25  2.091.05  4.090.85  7.090.85
1000.0  10.090.05  13.089.95  16.089.75  19.089.95  22.090.05  25.090.05
1000.0  28.090.35  31.090.45  34.090.35  37.090.55  40.090.55  43.090.65
1000.0  46.091.15  49.090.85  52.090.85  55.091.25  58.091.05  61.091.05
1000.0  64.091.75  67.293.25  69.192.55  72.293.05  76.893.82  82.794.79
NS 1000.0      1.1      1.1      1.1      7.6      7.6      7.6
NS 1000.0      7.6      7.6      7.6      7.2      7.2      7.2
NS 1000.0      7.2      7.2      7.2      7.2      7.9      7.9
NS 1000.0      7.9      7.9      7.9      7.9      7.9      7.9
NS 1000.0      7.7      7.7 .10  2.7      2.2      7.6      7.6
CAL11000.0     93.25     303.2
VEL11000.0      0.00 0.43 0.58 0.67 1.28 1.80 2.15 2.19 1.40 1.97
VEL11000.0  2.41 2.37 2.03 2.19 2.23 2.33 2.36 1.88 2.01 1.95 1.75 1.36
VEL11000.0  0.71 0.01 0.11 0.00
CAL21000.0     92.53     79.4
VEL21000.0
VEL21000.0
VEL21000.0
CAL31000.0     93.36     322.3
VEL31000.0
VEL31000.0
VEL31000.0
ENDJ

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RUN                MID
IOC                1101100000001000101000
QARD 25.0
QARD 50.0
QARD 79.4
QARD 100.0
QARD 150.0
QARD 200.0
QARD 250.0
QARD 303.2
QARD 322.3
QARD 350.0
QARD 400.0
QARD 450.0
QARD 500.0
QARD 550.0
QARD 600.0
QARD 650.0
QARD 700.0
QARD 750.0
QARD 800.0
QARD 850.0
QARD 900.0
QARD 950.0
QARD 1000.
QARD 1100.
QARD 1200.
QARD 1300.
QARD 1400.
QARD 1600.
QARD 1800.
QARD 2000.
XSEC1000.0        0.00 1.0      90.40  0.00061
    1000.0  0.094.74  1.893.34  4.292.34  7.091.34  10.090.44  13.089.84
    1000.0  15.089.84  18.089.84  21.089.84  23.089.64  26.089.64  29.089.84
    1000.0  32.089.54  35.089.64  38.089.64  41.089.64  44.089.94  47.090.14
    1000.0  50.090.34  53.090.54  56.091.34  59.091.54  62.091.64  65.091.84
    1000.0  68.092.44  71.092.44  74.393.24  79.093.99  101.095.40  120.096.55
    1000.0  130.097.95  134.998.62
NS 1000.0         2.1      2.2      2.1      2.2      2.7      2.7
NS 1000.0         2.7      2.7      2.7      2.7      2.7      2.7
NS 1000.0         2.7      2.7      .075  2.7      2.7      2.7      7.2
NS 1000.0         7.2      7.2      7.2      7.2      7.2      7.2
NS 1000.0         7.2      7.2      2.6      7.6      7.6      7.6
NS 1000.0         3.2      3.2
CAL11000.0        93.34      303.2
VEL11000.0        0.00 0.32 0.41 0.78 1.52 1.94 1.90 1.84 1.44 1.69 1.88
VEL11000.0  1.69 1.62 0.91 1.65 1.81 1.43 1.76 1.81 1.81 1.88 1.88 1.38
VEL11000.0  1.35 0.86 0.00
CAL21000.0        92.56      79.4
VEL21000.0
VEL21000.0
VEL21000.0
CAL31000.0        93.46      322.3
VEL31000.0
VEL31000.0
VEL31000.0
ENDJ

```


Stream: Sprague River
 Site: 643
 Date: 4/11/2004
 Habitat: Run

Flow: High

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|------------|---------|---------------|----------|-----------|
| | | | | |
| | | L/R bank (ft) | Ave (ft) | |
| BM | 1.23 | 101.23 | | 100.00 |
| HP1 | | | 6.97 | 94.26 |
| BM2 | 4.55 | 96.81 | 8.97 | 92.26 |
| HP2 | 4.78 | 98.64 | 2.95 | 93.86 |
| HP3 | 4.87 | 98.77 | 4.74 | 93.90 |
| HP2 | 3.65 | 97.51 | 4.91 | 93.86 |
| BM2 | 8.46 | 100.72 | 5.25 | 92.26 |
| HP1 | | | 6.47 | 94.25 |
| BM | | | 0.73 | 99.99 |

Comment: Unable to get loop to close. Use elevations from 4/11 data

Date: 6/26/2004
 Habitat: Run

Flow: Mid

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|------------|---------|---------------|----------|-----------|
| | | | | |
| | | L/R bank (ft) | Ave (ft) | |
| BM | 0.11 | 100.11 | | 100.00 |
| HP1 | | | 5.82 | 94.29 |
| HP2 | 3.84 | 97.37 | 6.58 | 93.53 |
| HP3 | 4.71 | 97.95 | 4.13 | 93.24 |
| HP2 | | | 4.43 | 93.52 |
| BM2 | 7.89 | 99.74 | 6.10 | 91.85 |
| BM1 | | | 0.18 | 99.56 |

Comment: Unable to get loop to close. Use elevations from 4/11 data

Date: 8/18/2004
 Habitat: Run

Flow: Low

| BM/HP (ft) | BS (ft) | HI (ft) | FS (ft) | Elev (ft) |
|------------|---------|---------------|----------|-----------|
| | | | | |
| | | L/R bank (ft) | Ave (ft) | |
| BM | 0.11 | 100.11 | | 100.00 |
| HP1 | | | 5.84 | 94.27 |
| TP1 | 3.40 | 97.52 | 5.99 | 94.12 |
| TP2 | 6.24 | 98.81 | 4.95 | 92.57 |
| HP2 | | | 4.94 | 93.87 |
| HP3 | | | 4.97 | 93.84 |
| TP | | | | |
| HP3 | 4.45 | 98.29 | | 93.84 |
| HP2 | | | 4.44 | 93.85 |
| TP2 | 4.73 | 97.29 | 5.73 | 92.56 |
| TP1 | 6.03 | 100.14 | 3.18 | 94.11 |
| HP1 | | | 5.89 | 94.25 |
| BM | | | 0.15 | 99.99 |

Comment: HP3 moved .06

(1) Level Loop Survey (WSE) Survey

| TR | Station | | Rod (ft) | FS (ft) | HI (ft) | FS (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|--------------|---------------|----------|----------|---------|---------|---------|----------|--------------|---------|
| | L/R bank (ft) | Ave (ft) | | | | | | | |
| 1-L | 0 | 0 | 0.46 | 9.94 | 100.72 | 9.74 | 91.24 | 91.24 | 959.1 |
| 1-R | 0 | 0 | 0.26 | 9.74 | 97.05 | 6.20 | 91.24 | 91.29 | |
| 2-L | 684 | 597 | 0.44 | 6.20 | 97.05 | 6.20 | 91.29 | 91.29 | |
| 2-R | 510 | 1014 | 0.20 | 5.92 | 97.05 | 5.92 | 91.33 | 91.33 | |
| 3-L | 1023 | 1014 | | | | | | | |
| 3-R | 1005 | | | | | | | | |
| Ave Q= 959.1 | | | | | | | | | |

Note: WSE slope = 0.009%

(2) Water Surface Elevation (WSE) Survey

| TR | Station | | Rod (ft) | FS (ft) | HI (ft) | FS (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|--------------|---------------|----------|----------|---------|---------|---------|----------|--------------|---------|
| | L/R bank (ft) | Ave (ft) | | | | | | | |
| 1-L | 0 | 0 | 0.00 | 11.41 | 100.50 | 11.75 | 89.09 | 89.09 | 148.2 |
| 1-R | 0 | 0 | 0.34 | 9.71 | 98.84 | 10.30 | 89.13 | 89.13 | 115.4 |
| 2-L | 684 | 597 | 0.59 | 10.30 | 99.61 | 10.38 | 89.27 | 89.27 | 146.6 |
| 2-R | 510 | 1014 | 1.37 | 11.71 | 100.50 | 11.71 | 89.27 | 89.27 | |
| 3-L | 1023 | 1014 | | | | | | | |
| 3-R | 1005 | | | | | | | | |
| Ave Q= 136.7 | | | | | | | | | |

Note: Check Loop and HP elevations after next field trip. WSE slope = 0.018%

(2) Water Surface Elevation (WSE) Survey

| TR | Station | | Rod (ft) | FS (ft) | HI (ft) | FS (ft) | WSE (ft) | Ave WSE (ft) | Q (cfs) |
|--------------|---------------|----------|----------|---------|---------|---------|----------|--------------|---------|
| | L/R bank (ft) | Ave (ft) | | | | | | | |
| 1-L | 0 | 0 | 0.00 | 10.40 | 99.88 | 10.42 | 89.26 | 89.26 | 118 |
| 1-R | 0 | 0 | 0.00 | 10.42 | 98.52 | 9.15 | 89.37 | 89.36 | 110.8 |
| 2-L | 684 | 597 | 0.00 | 9.18 | 99.45 | 10.07 | 89.38 | 89.38 | 117.1 |
| 2-R | 510 | 1014 | 0.00 | 10.08 | 100.00 | 10.08 | 89.37 | 89.37 | |
| 3-L | 1023 | 1014 | | | | | | | |
| 3-R | 1005 | | | | | | | | |
| Ave Q= 115.4 | | | | | | | | | |

Note: WSE slope = 0.010%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 0068
 Propeller ID: NA

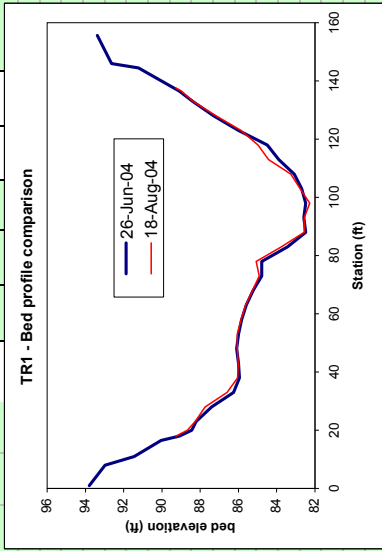
(3) Meter and propeller ID for Velocity Correction

Meter ID: 0068
 Propeller ID: NA

(3) Meter and propeller ID for Velocity Correction

Meter ID: 0068
 Propeller ID: na

| Stream: Sprague River | | 11-Apr-04 | | | | | 26-Jun-04 | | | | | 18-Aug-04 | | | | | | | | | | | |
|--|--------------|-----------|---------|-------------|------------|------------|--------------------|------------------|-------|---------|-----------|-----------|---------|-------------|------------|------------|--------------------|------------------|-------|---------|-----------|-------|-------|
| Site: 643 | Transsect: I | Sta (ft) | FS (ft) | Ground (ft) | Depth (ft) | Vel (ft/s) | V _{0.206} | V _{0.8} | Ave | q (cfs) | substrate | Sta (ft) | FS (ft) | Ground (ft) | Depth (ft) | Vel (ft/s) | V _{0.206} | V _{0.8} | Ave | q (cfs) | substrate | | |
| DISCHARGE TRANSECT ONLY ** NOT TR1 ** JUST USE TO CALCULATE Q | | | | | | | | | | | | | | | | | | | | | | | |
| 6/26/2004 | 100.50 | 148.2 | 11.5 | 91.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.2 | 18.0 | 89.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.2 | |
| 8/18/2004 | 99.68 | 118.2 | 14.5 | 90.49 | 0.75 | 0.19 | 0.27 | 0.55 | 0.27 | 0.55 | 1.2 | 20.0 | 88.44 | 0.65 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 1.2 | |
| | | | 17.0 | 89.59 | 1.65 | 0.50 | 0.60 | 2.23 | 0.60 | 2.23 | 1.2 | 23.0 | 88.22 | 0.87 | 0.03 | 0.05 | 0.16 | -0.02 | -0.03 | -0.12 | 0.00 | 1.2 | |
| | | | 19.0 | 89.04 | 2.20 | 0.76 | 0.89 | 7.87 | 0.89 | 7.87 | 1.2 | 28.0 | 87.41 | 1.68 | 0.15 | 0.22 | 1.84 | 0.39 | 0.39 | 0.49 | 3.72 | 1.2 | |
| | | | 25.0 | 88.24 | 3.00 | 0.83 | 0.86 | 17.80 | 0.99 | 17.80 | 1.2 | 33.0 | 86.25 | 2.84 | 0.26 | 0.34 | 4.88 | 0.38 | 0.38 | 0.49 | 3.72 | 1.2 | |
| | | | 31.0 | 85.84 | 5.40 | 1.02 | 1.05 | 39.01 | 1.20 | 39.01 | 1.2 | 38.0 | 85.95 | 3.14 | 0.16 | 0.08 | 0.18 | 0.20 | 0.12 | 0.23 | 3.71 | 1.2 | |
| | | | 37.0 | 85.24 | 6.00 | 1.16 | 1.18 | 48.92 | 1.36 | 48.92 | 1.2 | 43.0 | 85.99 | 3.10 | 0.24 | 0.24 | 0.24 | 0.24 | 0.14 | 0.06 | 0.15 | 2.44 | 1.2 |
| | | | 43.0 | 84.64 | 6.60 | 1.25 | 1.18 | 55.86 | 1.41 | 55.86 | 1.2 | 48.0 | 85.99 | 3.00 | 0.24 | 0.09 | 0.32 | 3.47 | 0.42 | 0.12 | 0.35 | 5.61 | 1.2 |
| | | | 49.0 | 83.24 | 8.00 | 1.33 | 1.30 | 73.20 | 1.53 | 73.20 | 1.2 | 53.0 | 85.99 | 3.10 | 0.18 | 0.30 | 0.32 | 4.94 | 0.30 | 0.20 | 0.33 | 5.62 | 1.2 |
| | | | 55.0 | 82.94 | 8.30 | 1.29 | 1.32 | 75.38 | 1.51 | 75.38 | 1.2 | 58.0 | 85.84 | 3.25 | 0.29 | 0.20 | 0.33 | 5.30 | 0.28 | 0.20 | 0.33 | 5.62 | 1.2 |
| | | | 61.0 | 82.94 | 8.40 | 1.34 | 1.45 | 81.47 | 1.62 | 81.47 | 1.2 | 68.0 | 85.24 | 3.85 | 0.32 | 0.11 | 0.29 | 5.55 | 0.19 | 0.12 | 0.22 | 4.48 | 1.2 |
| | | | 67.0 | 82.84 | 8.40 | 1.34 | 1.45 | 81.47 | 1.62 | 81.47 | 1.2 | 73.0 | 84.79 | 4.30 | 0.02 | 0.40 | 0.26 | 5.68 | 0.12 | 0.00 | 0.09 | 1.98 | 1.2 |
| | | | 73.0 | 83.94 | 7.30 | 1.39 | 1.53 | 74.04 | 1.69 | 74.04 | 1.2 | 78.0 | 84.79 | 4.30 | 0.44 | -0.03 | 0.25 | 5.30 | 0.28 | 0.18 | 0.31 | 6.49 | 1.2 |
| | | | 79.0 | 85.34 | 5.90 | 1.23 | 1.50 | 56.00 | 1.58 | 56.00 | 1.2 | 83.0 | 83.44 | 5.65 | 0.13 | 0.46 | 0.38 | 10.68 | 0.40 | 0.60 | 0.61 | 16.66 | 1.2 |
| | | | 85.0 | 85.04 | 6.20 | 1.08 | 1.44 | 54.38 | 1.46 | 54.38 | 1.2 | 88.0 | 82.49 | 6.60 | 0.52 | 0.24 | 0.47 | 15.61 | 0.39 | 0.08 | 0.31 | 10.23 | 1.2 |
| | | | 91.0 | 85.64 | 5.60 | 1.11 | 1.34 | 47.77 | 1.42 | 47.77 | 1.2 | 93.0 | 82.59 | 6.50 | 0.44 | 0.52 | 0.58 | 18.90 | 0.44 | 0.33 | 0.48 | 16.05 | 1.2 |
| | | | 97.0 | 85.94 | 5.30 | 1.16 | 1.32 | 44.46 | 1.44 | 44.46 | 1.2 | 98.0 | 82.49 | 6.60 | 0.49 | 0.23 | 0.45 | 14.91 | 0.49 | 0.03 | 0.32 | 11.17 | 1.2 |
| | | | 103.0 | 86.09 | 5.15 | 1.10 | 1.38 | 44.46 | 1.44 | 44.46 | 1.2 | 103.0 | 82.69 | 6.40 | 0.30 | 0.44 | 0.46 | 14.78 | 0.20 | 0.08 | 0.20 | 6.04 | 1.2 |
| | | | 109.0 | 86.24 | 5.00 | 0.99 | 1.37 | 41.10 | 1.37 | 41.10 | 1.2 | 108.0 | 83.09 | 6.00 | 0.32 | 0.09 | 0.27 | 8.21 | 0.48 | 0.18 | -0.20 | -0.01 | -0.29 |
| | | | 115.0 | 85.99 | 5.25 | 0.83 | 1.18 | 36.90 | 1.17 | 36.90 | 1.2 | 113.0 | 83.89 | 5.20 | 0.30 | 0.19 | 0.32 | 8.45 | 0.18 | -0.04 | 0.00 | -0.03 | -0.67 |
| | | | 121.0 | 86.24 | 5.00 | 0.72 | 1.27 | 34.85 | 1.16 | 34.85 | 1.2 | 118.0 | 84.49 | 4.60 | 0.14 | -0.01 | 0.10 | 2.20 | 0.30 | 0.01 | 0.00 | 0.13 | |
| | | | 127.0 | 87.34 | 3.90 | 0.88 | 1.05 | 26.30 | 1.12 | 26.30 | 1.2 | 123.0 | 85.99 | 3.10 | 0.09 | 0.22 | 0.22 | 3.42 | 0.16 | 0.00 | 0.01 | 0.13 | |
| | | | 133.0 | 88.29 | 2.95 | 0.66 | 0.51 | 0.70 | 12.34 | 0.70 | 2.3 | 128.0 | 87.29 | 1.80 | 0.13 | 0.20 | 1.76 | 2.10 | 0.06 | 0.00 | 0.23 | 2.42 | |
| | | | 139.0 | 89.94 | 1.30 | 0.09 | 0.14 | 0.97 | 0.14 | 0.97 | 2.3 | 133.0 | 88.39 | 0.70 | -0.05 | -0.08 | -0.23 | 2.3 | 0.06 | 0.00 | 0.05 | 0.18 | |
| | | | 143.6 | 91.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.3 | 136.5 | 89.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | | | | | | | | | 1.2 | 144.5 | 9.28 | 91.22 | | | | | | | | 1.2 | |
| | | | | | | | | | | | 1.2 | 146.0 | 7.87 | 92.63 | | | | | | | | 1.2 | |
| | | | | | | | | | | | 1.2 | 155.6 | 7.12 | 93.38 | | | | | | | | 1.2 | |



Run LOW TRANSECT 1
 IOC 1100000100001000101000
 QARD 45.0
 QARD 50.0
 QARD 75.0
 QARD 100.0
 QARD 115.4
 QARD 125.0
 QARD 147.4
 QARD 175.0
 QARD 200.0
 QARD 225.0
 QARD 250.0
 QARD 275.0
 QARD 300.0
 QARD 325.0
 QARD 350.0
 QARD 375.0
 QARD 400.0
 QARD 425.0
 QARD 450.0
 QARD 475.0
 QARD 500.0
 QARD 525.0
 QARD 550.0
 QARD 575.0
 QARD 600.0
 QARD 650.0
 QARD 700.0
 QARD 800.0
 QARD 900.0
 QARD 959.1
 XSEC 0.0 0.0 1.0 82.27 0.00010
 0.0 1.0 93.8 8.0 93.0 11.0 91.5 16.5 90.1 18.0 89.3 20.0 88.7
 0.0 23.0 88.3 28.0 87.7 33.0 86.6 38.0 86.0 43.0 86.0 48.0 86.1
 0.0 53.0 86.1 58.0 85.9 63.0 85.6 68.0 85.3 73.0 84.9 78.0 85.1
 0.0 83.0 83.8 88.0 82.6 93.0 82.6 98.0 82.3103.0 82.8108.0 83.3
 0.0113.0 84.4118.0 85.0123.0 85.9128.0 87.2133.0 88.4136.5 89.0
 0.0137.6 89.3144.5 91.2146.0 92.6155.6 93.4
 NS 0.0 1.2 1.2 1.2 1.2 2.1 1.2
 NS 0.0 2.1 .06 2.3 2.3 2.3 2.4 .30 2.4
 NS 0.0 2.4 2.4 2.4 2.4 .25 2.4 2.3
 NS 0.0 .090 2.3 2.3 2.3 2.3 2.3 2.3
 NS 0.0 2.3 2.3 2.3 2.3 .15 2.3 2.3
 NS 0.0 2.3 1.2 1.2 1.2
 WSL 0.0 88.59 88.66 88.96 89.18 89.29 89.35
 WSL 0.0 89.49 89.63 89.75 89.85 89.94 90.02
 WSL 0.0 90.10 90.18 90.25 90.31 90.38 90.43
 WSL 0.0 90.48 90.54 90.59 90.64 90.68 90.73
 WSL 0.0 90.77 90.85 90.93 91.07 91.18 91.26
 CAL1 0.0 89.27 115.4
 VEL1 0.0 0.00 0.01-0.03 0.49 0.26 0.23 0.15 0.05
 VEL1 0.0 0.35 0.33 0.25 0.22 0.09 0.31 0.61 0.31 0.48 0.32 0.41 0.20
 VEL1 0.0-0.01-0.03 0.01 0.23 0.05 0.08 0.00
 CAL2 0.0 91.24 959.1
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 CAL3 0.0 89.09 147.4
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 ENDJ


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Run                LOW                TRANSECT 2
IOC                1100000100001000101000
QARD 45.0
QARD 50.0
QARD 75.0
QARD 100.0
QARD 115.4
QARD 125.0
QARD 147.4
QARD 175.0
QARD 200.0
QARD 225.0
QARD 250.0
QARD 275.0
QARD 300.0
QARD 325.0
QARD 350.0
QARD 375.0
QARD 400.0
QARD 425.0
QARD 450.0
QARD 475.0
QARD 500.0
QARD 525.0
QARD 550.0
QARD 575.0
QARD 600.0
QARD 650.0
QARD 700.0
QARD 800.0
QARD 900.0
QARD 959.1
XSEC 0.0          0.0 1.0          86.46  0.00010
      0.0  1.0 93.5 19.3 91.3 33.2 91.0 37.0 89.8 60.0 89.4 61.0 89.2
      0.0 65.0 88.9 73.0 88.6 81.0 88.6 89.0 87.6 97.0 87.4 105.0 87.4
      0.0 113.0 87.3 121.0 87.3 129.0 87.2 137.0 86.9 145.0 86.5 153.0 86.7
      0.0 161.0 87.1 169.0 86.7 177.0 86.6 185.0 86.6 190.0 87.1 192.0 88.3
      0.0 200.0 88.9 212.0 89.3 214.0 89.4 224.2 90.4 226.5 92.9 236.3 93.2
NS    0.0          1.2          1.2          1.2          2.1          2.3  .1  2.3
NS    0.0 .09      2.3 .045  2.3 .15  2.3          2.3          2.3          2.3
NS    0.0          2.3          2.3          2.3          2.3          2.3          2.3
NS    0.0          2.4          2.4          2.4          2.3          2.3          2.3
NS    0.0          2.3          2.3          2.3          2.3          1.2          1.2
WSL   0.0          88.70          88.77          89.04          89.25          89.36          89.42
WSL   0.0          89.56          89.69          89.81          89.91          89.99          90.08
WSL   0.0          90.16          90.23          90.30          90.36          90.42          90.47
WSL   0.0          90.53          90.58          90.63          90.68          90.72          90.77
WSL   0.0          90.81          90.89          90.97          91.11          91.22          91.29
CAL1  0.0          89.37          115.4
VEL1  0.0          0.00 0.01 0.05 0.45 0.05 0.29 0.14 0.30
VEL1  0.0 0.19 0.51 0.47 0.40 0.47 0.29 0.60 0.63 0.46 0.59 0.35 0.44
VEL1  0.0 0.18 0.05 0.00
CAL2  0.0          91.29          959.1
VEL2  0.0
VEL2  0.0
VEL2  0.0
CAL3  0.0          89.13          147.4
VEL3  0.0
VEL3  0.0
VEL3  0.0
ENDJ

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Run LOW TRANSECT 3
 IOC 1100000100001000101000
 QARD 45.0
 QARD 50.0
 QARD 75.0
 QARD 100.0
 QARD 115.4
 QARD 125.0
 QARD 147.4
 QARD 175.0
 QARD 200.0
 QARD 225.0
 QARD 250.0
 QARD 275.0
 QARD 300.0
 QARD 325.0
 QARD 350.0
 QARD 375.0
 QARD 400.0
 QARD 425.0
 QARD 450.0
 QARD 475.0
 QARD 500.0
 QARD 525.0
 QARD 550.0
 QARD 575.0
 QARD 600.0
 QARD 650.0
 QARD 700.0
 QARD 800.0
 QARD 900.0
 QARD 959.1
 XSEC 0.0 0.0 1.0 86.46 0.00010
 0.0 1.0 91.3 22.0 92.3 24.0 91.4 29.5 90.5 31.2 89.4 34.0 88.4
 0.0 39.0 87.4 44.0 86.6 49.0 85.8 54.0 85.4 59.0 85.0 64.0 84.9
 0.0 69.0 85.0 74.0 84.9 79.0 84.9 84.0 84.6 89.0 84.9 94.0 85.1
 0.0 99.0 85.3104.0 85.5109.0 85.6114.0 86.2119.0 87.1124.0 87.4
 0.0128.0 88.4129.0 89.4129.5 89.3145.0 92.4149.7 93.7
 NS 0.0 1.2 1.2 1.2 1.2 2.1 .20 2.3
 NS 0.0 .15 2.3 2.3 2.3 2.3 2.3 2.3
 NS 0.0 .090 2.3 2.3 4.2 4.2 4.2 4.2
 NS 0.0 4.2 4.2 4.2 2.3 2.3 2.3
 NS 0.0 0.25 2.3 2.3 1.2 2.1 2.1
 WSL 0.0 88.73 88.80 89.08 89.28 89.39 89.45
 WSL 0.0 89.58 89.72 89.83 89.93 90.02 90.10
 WSL 0.0 90.18 90.25 90.32 90.38 90.44 90.49
 WSL 0.0 90.55 90.60 90.65 90.70 90.74 90.79
 WSL 0.0 90.83 90.91 90.98 91.12 91.23 91.30
 CAL1 0.0 89.38 115.4
 VEL1 0.0 0.00-0.11 0.08 0.19 0.26 0.30 0.40 0.45
 VEL1 0.0 0.54 0.44 0.46 0.41 0.45 0.40 0.35 0.31 0.28 0.16 0.16 0.12
 VEL1 0.0 0.01 0.00
 CAL2 0.0 91.33 959.1
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 CAL3 0.0 89.27 147.4
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 ENDJ

