

10-30-2008

Ex. 277-US-456

Unknown

Follow this and additional works at: <https://digitalcommons.law.uidaho.edu/all>

Recommended Citation

Unknown, "Ex. 277-US-456" (2008). *Hedden-Nicely Collection, All*. 378.
<https://digitalcommons.law.uidaho.edu/all/378>

This Expert Report is brought to you for free and open access by the Hedden-Nicely at Digital Commons @ UIdaho Law. It has been accepted for inclusion in Hedden-Nicely Collection, All by an authorized administrator of Digital Commons @ UIdaho Law. For more information, please contact annablaine@uidaho.edu.

Stream: Williamson
 Site: 638 (Irving Creek)

Date: 5/10/1993
 Run
 Habitat: Run

Flow: High

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.37	104.37		
HP1			7.99	96.38
HP2			5.76	98.61
HP3			6.25	98.12
TP				
HP3	5.06	103.18	4.58	98.60
HP2			6.80	96.38
HP1			3.18	100.00
BM				

Comment:

Date: 6/23/1993
 Run
 Habitat: Run

Flow: Low

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.64	104.64		
HP1			8.25	96.39
HP2			6.04	98.60
HP3			6.52	98.12
TP				
HP3	6.36	104.48	5.89	98.59
HP2			8.10	96.38
HP1			4.48	100.00
BM				

Comment:

Date: 9/19/1993
 Run
 Habitat: Run

Flow: Mid

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.51	104.51		
HP1			8.13	96.38
HP2			5.91	98.60
HP3			6.39	98.12
TP				
HP3	6.17	104.29	5.69	98.60
HP2			7.92	96.37
HP1			4.30	99.99
BM				

Comment:

(1) Level Loop Survey (WSE) Survey

	L/R WSE	Sta (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
TR1	LWSE	0	103.18	8.57	0.00	94.61	94.60	1.5
	RWSE			8.59	0.00	94.59		
TR2	LWSE	25.8	103.18	7.05	0.00	96.13	96.12	
	RWSE			7.07	0.00	96.11		
TR3	LWSE	30.7	103.18	7.03	0.00	96.15	96.13	
	RWSE			7.07	0.00	96.11		

Note:

WSE slope = 4.984%

Ave Q= 1.5

(2) Water Surface Elevation (WSE) Survey

	L/R WSE	Sta (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
TR1	LWSE	0	104.48	9.85	0.00	94.63	94.67	1.3
	RWSE			9.78	0.00	94.70		
TR2	LWSE	25.8	104.48	8.31	0.00	96.17	96.17	1.1
	RWSE			8.32	0.00	96.16		
TR3	LWSE	30.7	104.48	8.49	0.00	95.99	96.00	1.3
	RWSE			8.47	0.00	96.01		

Note:

WSE slope = 4.349%

Ave Q= 1.2

(1) Level Loop Survey (BM & HP)

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.51	104.51		
HP1			8.13	96.38
HP2			5.91	98.60
HP3			6.39	98.12
TP				
HP3	6.17	104.29	5.69	98.60
HP2			7.92	96.37
HP1			4.30	99.99
BM				

Comment:

(2) Water Surface Elevation (WSE) Survey

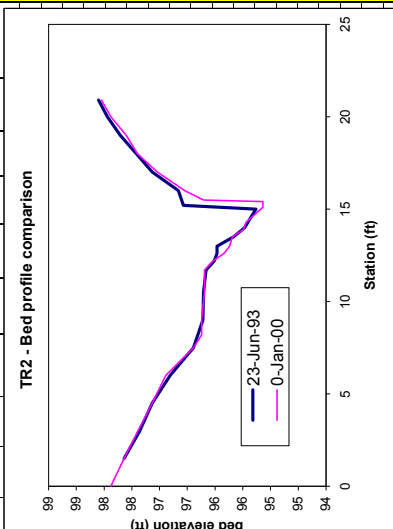
	L/R WSE	Sta (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
TR1	LWSE	0	104.29	9.87	0.00	94.62	94.63	1.3
	RWSE			9.65	0.00	94.64		
TR2	LWSE	25.8	104.29	8.02	0.00	96.27	96.24	1.2
	RWSE			8.08	0.00	96.21		
TR3	LWSE	30.7	104.29	7.90	0.00	96.39	96.27	1.5
	RWSE			8.15	0.00	96.14		

Note:

WSE slope = 5.326%

Ave Q= 1.3

Stream: Williamson			10-May-93				23-Jun-93				0-Jan-00														
Site:	638		Sta	FS	Ground	Depth	Vel (ft/s)	V _{0.2/0.6}	V _{0.8}	Ave	q	substrate						Depth	Vel (ft/s)	V _{0.2/0.6}	V _{0.8}	Ave	q	substrate	
Transect:	2		(ft)	(ft)	(ft)	(ft)	(ft/s)	(ft)	(ft)	(ft/s)	(cfs)								(ft)	(ft/s)	(ft)	(ft/s)	(ft/s)	(cfs)	
Habitat:	Run																								
Survey Date	HI	Q																							
5/10/1993	103.18																								
6/23/1993	104.48	1.1																							
1/0/1900	104.29	1.2																							




```

RUN                MID                TRANSECT 1
IOC                1101100100001000101000
QARD 0.5
QARD 0.6
QARD 0.7
QARD 0.8
QARD 0.9
QARD 1.0
QARD 1.1
QARD 1.2
QARD 1.3
QARD 1.4
QARD 1.5
QARD 1.6
QARD 1.7
QARD 1.8
QARD 2.0
QARD 2.1
QARD 2.2
QARD 2.3
QARD 2.4
QARD 2.5
QARD 2.6
QARD 2.7
QARD 2.8
QARD 2.9
QARD 3.0
QARD 3.1
QARD 3.2
QARD 3.3
QARD 3.4
QARD 3.5
XSEC1000.0        0.00 1.0      94.07 0.053260
1000.0 0.097.02 1.596.61 3.096.16 4.595.78 6.095.40 7.595.13
1000.0 9.094.98 9.294.62 9.694.48 9.994.43 10.294.43 10.594.33
1000.0 10.894.13 11.194.03 11.493.98 11.793.98 12.094.03 12.394.03
1000.0 12.694.03 12.994.08 13.294.18 13.594.33 13.894.43 14.094.63
1000.0 14.594.68 15.094.69 15.594.70 16.094.70 16.594.74 17.095.74
1000.0 17.595.75 18.095.78 18.595.81 19.095.83 19.595.83 20.496.07
NS 1000.0        1.1      1.1      1.1      1.1      1.1      1.1
NS 1000.0        1.1 1.      1.1 1.      1.1 1.      1.1 1.      1.1
NS 1000.0        1.1      3.4      3.4      3.4      3.4      3.4
NS 1000.0        3.4      3.4      3.4 0.5    1.1 0.55 1.1 1.1
NS 1000.0        1.1      1.1      1.1      1.1      1.1      1.1
NS 1000.0        1.1      1.1      1.1      1.1      1.1      1.1
WSL 1000.0       94.44     94.48     94.50     94.53     94.55     94.57
WSL 1000.0       94.59     94.61     94.63     94.66     94.68     94.71
WSL 1000.0       94.76     94.77     94.79     94.79     94.81     94.81
WSL 1000.0       94.82     94.83     94.84     94.85     94.86     94.87
WSL 1000.0       94.88     94.89     94.89     94.90     94.91     94.93
CAL11000.0       94.63     1.300
VEL11000.0                                0.05 0.04 0.05 -.23
VEL11000.0 0.59 0.97 0.88 0.92 0.88 0.91 0.85 0.71 0.43 0.22 0.14 0.00
VEL11000.0
CAL21000.0       94.63     1.301
VEL21000.0
VEL21000.0
CAL31000.0       94.63     1.302
VEL31000.0
VEL31000.0
VEL31000.0
ENDJ

```

RUN MID
 IOC 1101100100001000101000
 QARD 0.5
 QARD 0.6
 QARD 0.7
 QARD 0.8
 QARD 0.9
 QARD 1.0
 QARD 1.1
 QARD 1.2
 QARD 1.3
 QARD 1.4
 QARD 1.5
 QARD 1.6
 QARD 1.7
 QARD 1.8
 QARD 2.0
 QARD 2.1
 QARD 2.2
 QARD 2.3
 QARD 2.4
 QARD 2.5
 QARD 2.6
 QARD 2.7
 QARD 2.8
 QARD 2.9
 QARD 3.0
 QARD 3.1
 QARD 3.2
 QARD 3.3
 QARD 3.4
 QARD 3.5

XSEC1000.0 0.00 1.0 95.27 0.053260
 1000.0 0.097.88 1.597.64 3.097.39 4.597.13 6.096.89 7.596.39
 1000.0 8.296.24 9.096.24 10.596.19 11.796.19 12.296.04 12.695.84
 1000.0 13.095.74 13.595.69 13.995.49 14.395.44 14.795.29 15.195.14
 1000.0 15.495.14 15.596.21 16.096.55 17.097.04 18.097.40 19.097.60
 1000.0 20.097.88 20.998.05
 NS 1000.0 1.1 1.1 1.1 1.1 1.1 1.1
 NS 1000.0 1.1 1.1 1.5 1.1 1.5 1.1 .32 1.1 3.2
 NS 1000.0 3.2 3.3 3.3 3.3 3.3 3.3
 NS 1000.0 .5 3.3 .5 1.1 1.1 1.1 1.1
 NS 1000.0 1.1 1.1
 WSL 1000.0 95.84 95.89 95.93 95.97 96.01 96.05
 WSL 1000.0 96.09 96.12 96.24 96.27 96.29 96.31
 WSL 1000.0 96.32 96.34 96.35 96.37 96.38 96.39
 WSL 1000.0 96.41 96.42 96.43 96.44 96.46 96.47
 WSL 1000.0 96.48 96.49 96.50 96.51 96.53 96.55
 CAL11000.0 96.24 1.300
 VEL11000.0 0.00 0.01 0.01 0.01 0.41 0.15
 VEL11000.0 0.35 0.34 0.49 0.51 0.50 0.72 0.85
 VEL11000.0
 CAL21000.0 96.24 1.301
 VEL21000.0
 VEL21000.0
 VEL21000.0
 CAL31000.0 96.24 1.209
 VEL31000.0
 VEL31000.0
 VEL31000.0
 ENDJ

RUN	MID										TRANSECT
IOC	1101100100001000101000										3
QARD	0.5										
QARD	0.6										
QARD	0.7										
QARD	0.8										
QARD	0.9										
QARD	1.0										
QARD	1.1										
QARD	1.2										
QARD	1.3										
QARD	1.4										
QARD	1.5										
QARD	1.6										
QARD	1.7										
QARD	1.8										
QARD	2.0										
QARD	2.1										
QARD	2.2										
QARD	2.3										
QARD	2.4										
QARD	2.5										
QARD	2.6										
QARD	2.7										
QARD	2.8										
QARD	2.9										
QARD	3.0										
QARD	3.1										
QARD	3.2										
QARD	3.3										
QARD	3.4										
QARD	3.5										
XSEC1000.0	0.00	1.0	95.42	0.053260							
1000.0	0.097.50	1.597.20	3.096.87	4.596.48	6.096.17	7.596.17					
1000.0	9.096.07	10.596.12	11.496.27	11.996.27	12.096.27	12.595.67					
1000.0	13.095.52	13.595.42	14.095.47	14.595.47	14.895.47	15.095.47					
1000.0	15.295.47	15.395.52	15.496.27	16.797.17	17.997.43						
NS 1000.0	1.1	1.1	1.1	1.1	0.60	1.1	.5	1.1			
NS 1000.0	.50	1.1	1.1	1.1	1.1	1.1	1.1	3.3			
NS 1000.0	3.3	3.3	3.3	1.2	3.3	3.3	3.3	3.3			
NS 1000.0	3.3	3.3	.35	1.1	1.1	1.1	1.1				
WSL 1000.0	95.88	95.93	95.98	96.02	96.08	96.21					
WSL 1000.0	96.23	96.25	96.27	96.29	96.31	96.32					
WSL 1000.0	96.34	96.35	96.38	96.39	96.41	96.42					
WSL 1000.0	96.43	96.44	96.45	96.47	96.48	96.49					
WSL 1000.0	96.50	96.51	96.52	96.53	96.54	96.55					
CAL11000.0	96.27	1.300									
VEL11000.0		0.00	1.09	0.09	0.14	0.22	0.01	0.01	0.01	0.37	
VEL11000.0	0.53	0.26	0.57	0.08	0.73	1.01	1.32	1.35	0.00		
CAL21000.0	96.27	1.301									
VEL21000.0											
VEL21000.0											
CAL31000.0	96.27	1.209									
VEL31000.0											
VEL31000.0											
ENDJ											