

10-30-2008

Ex. 277-US-456

Unknown

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

Recommended Citation

Unknown, "Ex. 277-US-456" (2008). *In re Klamath River (Klamath Tribe)*. 72.
<https://digitalcommons.law.uidaho.edu/klamath/72>

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 In re Klamath River (Klamath Tribe) 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

(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	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

	L/R WSE	Sta (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
TR1	LWSE	0	104.29	9.67	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


```

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 3
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	95.42	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											