

Permit No: 21-7155

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SEP 26 2005

DEPARTMENT OF WATER RESOURCES

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 21-7155

Exam Date: 9/26/2005
1987

1. Current Owner: JAMES R NEDROW
3085 E 1200 N
ASHTON ID 83420
(208)652-3380

2. Accompanied by: James Nedrow
Phone No:
Address:
Relationship to Permit Holder:

3. SOURCE
SAND CREEK

TRIBUTARY
SINKS Henry's fork

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 21-7154
2. Other water rights with the same point of diversion: NONE

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

SAND CREEK NE1/4SE1/4

Sec. 1, Twp 08N, Rge 41E, B.M. Dam

FREMONT County

SAND CREEK NE1/4SE1/4

Sec. 1, Twp 08N, Rge 41E, B.M.

FREMONT County

pump

Method of Determination: GPS / FE

2.

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08N	41E	1																	X

Current Owner: same as Ady claim
J Richard Nedrow (son of James)

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
08N	41E	1	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
						3.5									30.0			32.0	65.5
08N	41E	12	2.8																2.8
			L 7																
08N	42E	6							3.4		15.0	4.3							22.7
									L 5		L 6	L 7							

Total Acres: 91

PLACE OF USE: IRRIGATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
08N	41E	1	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
						X									X				

irrigation pump not present.

reservoir nearly dry

GW 21-7154 is now the primary right

Sand creek sinks before this reservoir or
is a short duration runoff in the spring
Measuring device for the pump was
an hour meter and pump cards used
by WD 01.

Method of Determination:

3. ☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
	Worthington	4"	pump	pto	

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>

2. Measurements:

Dem measurements from 1987
 irrigation pump ran the same 4 handlines as
~~was~~ in 21-7154 gw or 1.48 CFS

E. FLOW CALCULATIONS

Measured Method:

☐ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 91 \times 3.5 = 318.5 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

$$300 \text{ range cattle} = 4 \text{ AF/A}$$

G. NARRATIVE/REMARKS/COMMENTS

dam on sand creek. 18 af storage volume. stockwatering ifrom the reservoir.

2nd point of diversion-worthington 4 inch PTO pump to mainline and 4 handlines. same system as measured on 21-7154.

Place of use based on 2004 photo.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
STOCKWATER	01/01 to 12/31	0.020 CFS	4.00 AF
IRRIGATION	04/01 to 10/31	1.480 CFS	318.50 AF
IRRIGATION STORAGE	01/01 to 12/31		18.00 AF
Totals:		1.480 CFS	318.50 AF

2. Recommended Amendments

☒ Change P.D. as reflected above ☒ Add P.D. as reflected above ☐ None

☒ Change P.U. as reflected above ☒ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name DAVE CARLSON Date 9/21/2005

Reviewer _____ Date _____

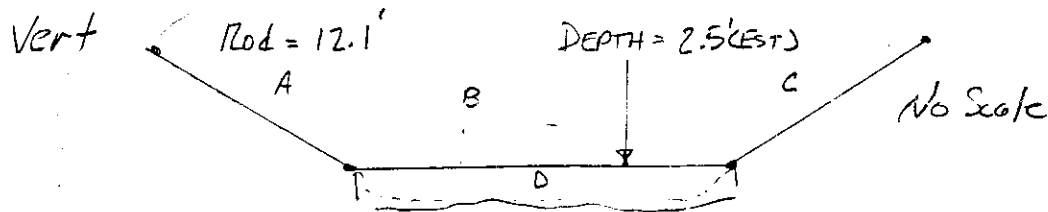
WATER RIGHT EXAMINATION - PERMIT # 21-7155 - JAMES NEADOW

DATE: MARCH 26, 1987 WEATHER: SUNNY WINDY COOL.

EXAMINERS: HAROLD JONES, STEVE MCDORMICA

VOLUME OF NEADOW RESERVOIR BY CROSS SECTION.

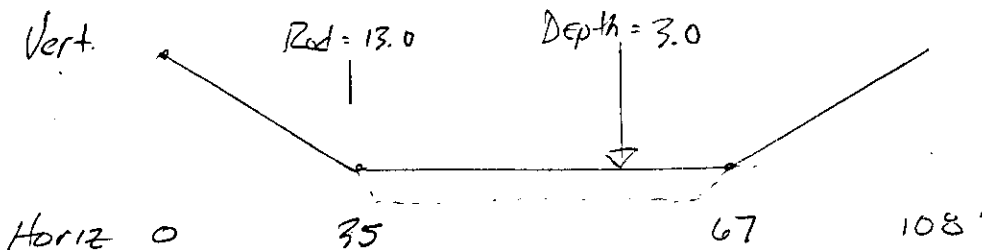
Station 0+00 @ dam. H.I. = 5.8'



Horiz 0 22' 67' 92'

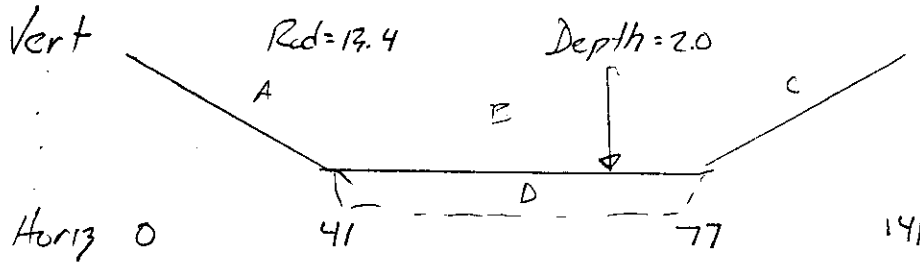
$$\begin{aligned}
 \text{Area A} &= 22' \times 6.3' \times \frac{1}{2} = 69.3 \\
 \text{" B} &= 45 \times 6.3 = 283.5 \\
 \text{" C} &= 25 \times 6.3 \times \frac{1}{2} = 78.8 \\
 \text{" D} &= 45 \times 2.5 = 112.5 \\
 \text{Total} &= 544.0 \text{ sq ft}
 \end{aligned}$$

Station 1+00 upstream



$$\begin{aligned}
 \text{Area A} &= 35' \times 7.2 \times \frac{1}{2} = 126.0 \\
 \text{" B} &= 32 \times 7.2 = 230.4 \\
 \text{" C} &= 41 \times 7.2 \times \frac{1}{2} = 147.6 \\
 \text{" D} &= 32 \times 3.0 = 96.0 \\
 \text{Total} &= 600 \text{ sq ft}
 \end{aligned}$$

$$\text{Volume} = 544.0' + 600.0' / 2 \times 100' \div 43,560'_{\text{ac}} = 1.31 \text{ A.F.}$$

Station 2+00

$$\text{Area A} = 41 \times 7.6 \times \frac{1}{2} = 155.8$$

$$B = 36 \times 7.6 = 273.6$$

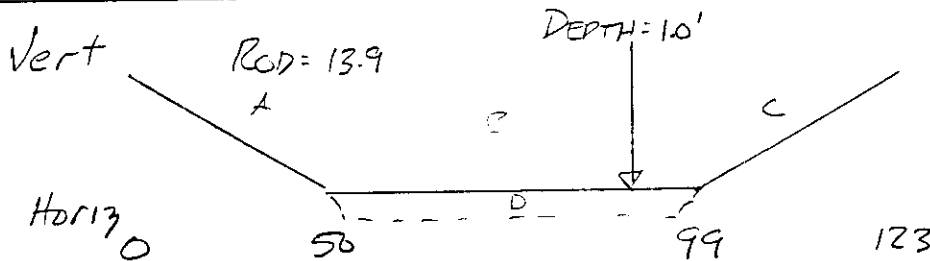
$$C = 64 \times 7.6 \times \frac{1}{2} = 243.2$$

$$D = 36 \times 2.0 = 72.0$$

$$\text{Total} = 744.6 \text{ sq ft}$$

Vol Total

$$\text{Volume} = 600 + 744.6 / 2 \times 100 \div 43560 = 1.54 \text{ A.F.} / 2.85 \text{ A.F.}$$

Station 3+00

$$\text{Area A} = 50 \times 8.1 \times \frac{1}{2} = 202.5$$

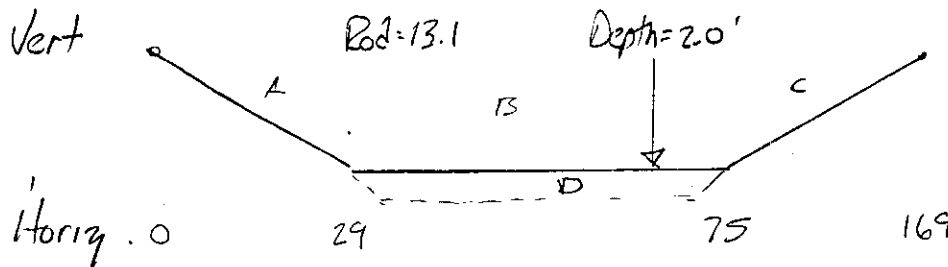
$$B = 49 \times 8.1 = 396.9$$

$$C = 24 \times 8.1 \times \frac{1}{2} = 97.2$$

$$D = 49 \times 1.0 = 49.0$$

$$\text{Total} = 745.6 \text{ sq ft}$$

$$\text{Vol} = 744.6 + 745.6 \times \frac{1}{2} \times 100 \div 43560 = 1.71 \text{ A.F.} / 4.56 \text{ A.F.}$$

Station 4+00

$$\text{Area A} = 29 \times 7.3 \times \frac{1}{2} = 105.9$$

$$B = 46 \times 7.3 = 335.8$$

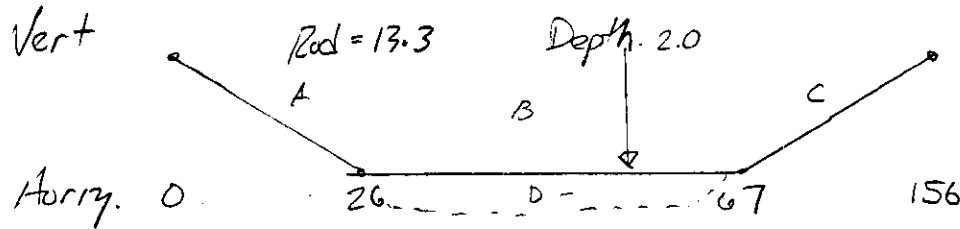
$$C = 94 \times 7.3 \times \frac{1}{2} = 343.1$$

$$D = 46 \times 2.0 = 92.0$$

$$\text{Total} = 876.8$$

$$\text{Vol} = 745.6 + 876.8 / 2 \times 100 \div 43560 = 1.86 \text{ A.F.} / 6.42 \text{ A.F.}$$

Station 5+00

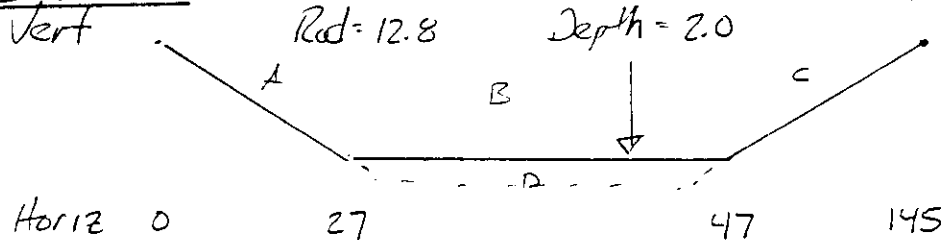


$$\begin{aligned} \text{Area A} &= 26 \times 7.5 \times \frac{1}{2} = 97.5 \\ \text{B} &= 41 \times 7.5 = 307.5 \\ \text{C} &= 67 \times 7.5 \times \frac{1}{2} = 333.8 \\ \text{D} &= 41 \times 2.0 = 82.0 \\ \text{Total} &= 820.8 \end{aligned}$$

Vol / Volume
This Sta. / Total

$$\text{Volume} = 876.8 + 820.8 / 2 \times 100 \div 43,560 = 1.95 \text{ af} / 8.37 \text{ af}$$

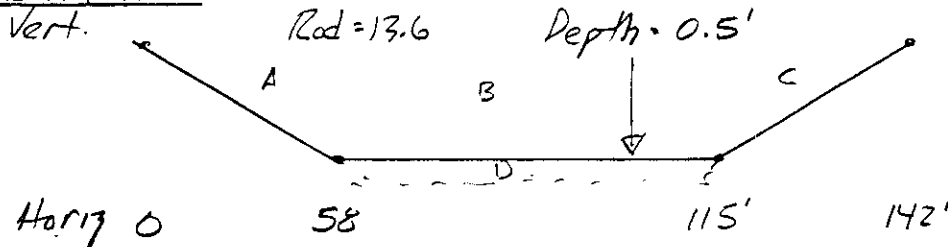
Sta 6+00



$$\begin{aligned} \text{Area A} &= 27 \times 7.0 \times \frac{1}{2} = 94.5 \\ \text{B} &= 20 \times 7.0 = 140.0 \\ \text{C} &= 47 \times 7.0 \times \frac{1}{2} = 343.0 \\ \text{D} &= 20 \times 2.0 = 40.0 \\ \text{Total} &= 617.5 \end{aligned}$$

$$\text{Volume} = (820.8 + 617.5) / 2 \times 100 \div 43,560 = 1.65 \text{ af} / 10.02 \text{ af}$$

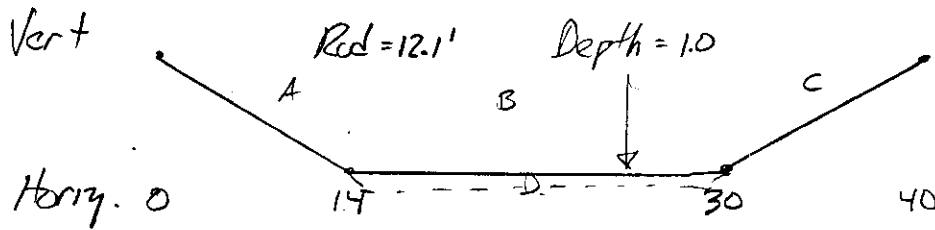
Station 7+00



$$\begin{aligned} \text{Area A} &= 58 \times 7.8 \times \frac{1}{2} = 226.2 \\ \text{B} &= 57 \times 7.8 = 444.6 \\ \text{C} &= 115 \times 7.8 \times \frac{1}{2} = 105.3 \\ \text{D} &= 57 \times 0.5 = 28.5 \\ \text{Total} &= 804.6 \text{ sq ft} \end{aligned}$$

$$\text{Volume} = (617.5 + 804.6) / 2 \times 100 \div 43,560 = 1.63 \text{ af} / 11.65 \text{ af}$$

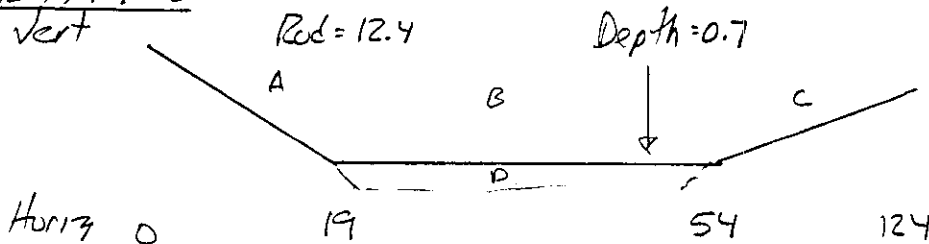
Station 8+00



$$\begin{aligned} \text{Area A} &= 14 \times 6.3 \times \frac{1}{2} = 44.1 \\ \text{" B} &= 16 \times 6.3 = 100.8 \\ \text{C} &= 10 \times 6.3 \times \frac{1}{2} = 31.5 \\ \text{D} &= 16 \times 1.0 = 16.0 \\ \text{Total} &= 192.4 \end{aligned}$$

$$\text{Volume} = (804.6 + 192.4) / 2 \times 100 \div 43,560 = 1.14 \text{ cf} / 12.79 \text{ cf.}$$

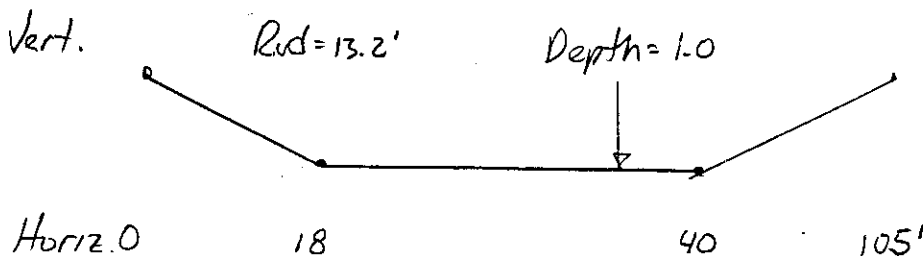
Station 9+00



$$\begin{aligned} \text{Area A} &= 19 \times 6.6 \times \frac{1}{2} = 62.7 \\ \text{B} &= 35 \times 6.6 = 231.0 \\ \text{C} &= 70 \times 6.6 \times \frac{1}{2} = 231.0 \\ \text{D} &= 35 \times 0.7 = 24.5 \\ \text{Total} &= 549.2 \end{aligned}$$

$$\text{Volume} = (192.4 + 549.2) / 2 \times 100 \div 43,560 = 0.85 \text{ cf.} / 13.64 \text{ cf.}$$

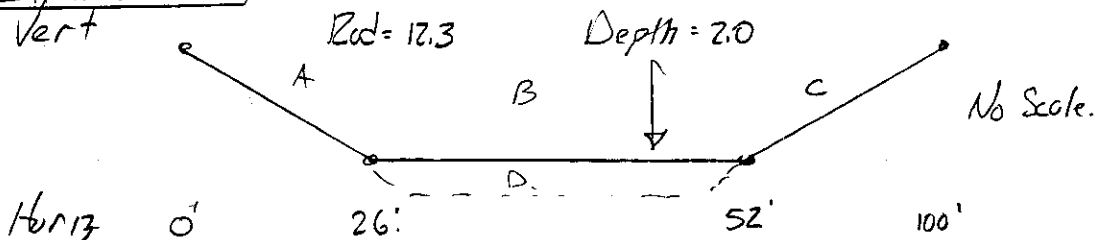
Station 10+00



$$\begin{aligned} \text{Area A} &= 18 \times 7.4 \times \frac{1}{2} = 66.6 \\ \text{B} &= 22 \times 7.4 = 162.8 \\ \text{C} &= 65 \times 7.4 \times \frac{1}{2} = 240.5 \\ \text{D} &= 22 \times 1.0 = 22 \\ \text{Total} &= 491.9 \end{aligned}$$

$$\text{Volume} = (549.2 + 491.9) / 2 \times 100 \div 43,560 = 1.20 \text{ cf} / 14.84 \text{ cf.}$$

Station 11+00

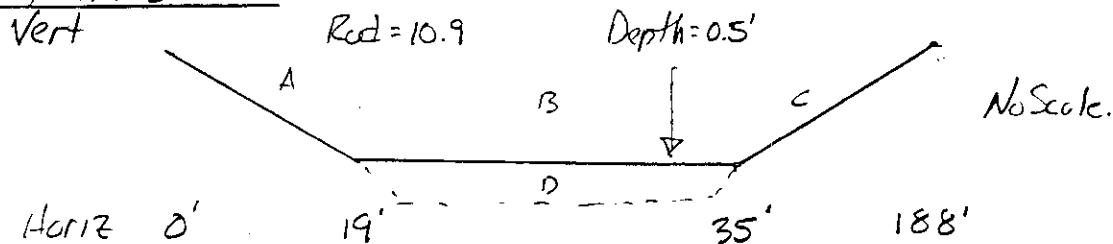


$$\begin{aligned} \text{Area A} &= 26 \times 6.5 \times \frac{1}{2} = 84.5 \\ B &= 26 \times 6.5 = 169.0 \\ C &= 48 \times 6.5 \times \frac{1}{2} = 156.0 \\ D &= 26 \times 2.0 = 52.0 \\ \text{Total} &= 461.5 \end{aligned}$$

Volume / Tot Volume

$$\text{Volume} = (491.9 + 461.5) / 2 \times 100 \div 43,560 = 1.09 \text{ af} / 15.93 \text{ af}$$

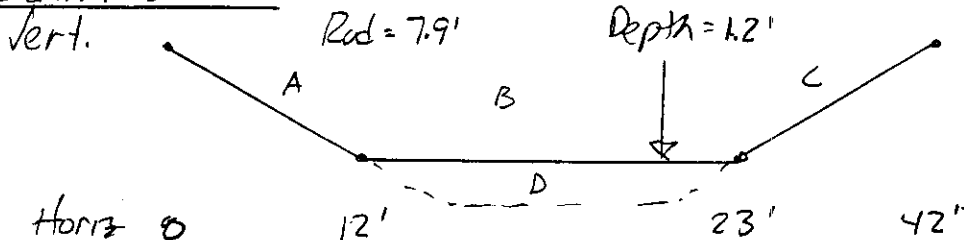
Station 12+00



$$\begin{aligned} \text{Area A} &= 19 \times 5.1 \times \frac{1}{2} = 48.5 \\ B &= 16 \times 5.1 = 81.6 \\ C &= 153 \times 5.1 \times \frac{1}{2} = 390.2 \\ D &= 16 \times 0.5 = 8.0 \\ \text{Total} &= 528.2 \end{aligned}$$

$$\text{Volume} = (461.5 + 528.2) / 2 \times 100 \div 43,560 = 1.14 \text{ af} / 17.07 \text{ af}$$

Station 13+00



$$\begin{aligned} \text{Area A} &= 12 \times 2.1 \times \frac{1}{2} = 12.6 \\ B &= 11 \times 2.1 = 23.1 \\ C &= 19 \times 2.1 \times \frac{1}{2} = 19.9 \\ D &= 11 \times 1.2 = 13.2 \\ \text{Total} &= 68.8 \end{aligned}$$

$$\text{Volume} = (528.2 + 68.8) / 2 \times 100 \div 43,560 = 0.69 \text{ af} / 17.75 \text{ af}$$

Sec 14+35

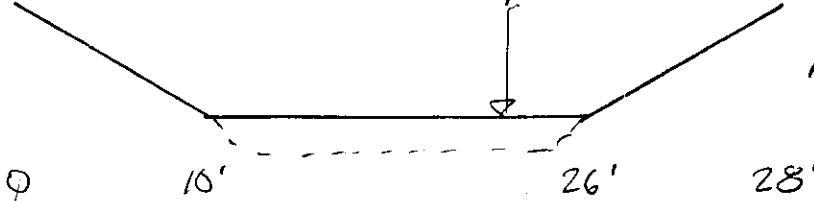
Vertical

Rad = 8.5

Depth = 1.5'

No Sect.

Horiz.



$$\begin{aligned}
 \text{Area } A &= 10 \times 2.7 \times \frac{1}{2} = 13.5 \\
 B &= 16 \times 2.7 = 43.2 \\
 C &= 2 \times 2.7 \times \frac{1}{2} = 2.7 \\
 D &= 16 \times 1.5 = 24.0 \\
 \hline
 \text{Total} &= 83.4
 \end{aligned}$$

Total ac ft

$$\text{Volume} = (68.8 + 58.9) / 2 \times 35 \div 43,560 = 0.17 \text{ af} / 17.92$$

21-7155 POD2



6/2005

21-7155

