YE> 01C

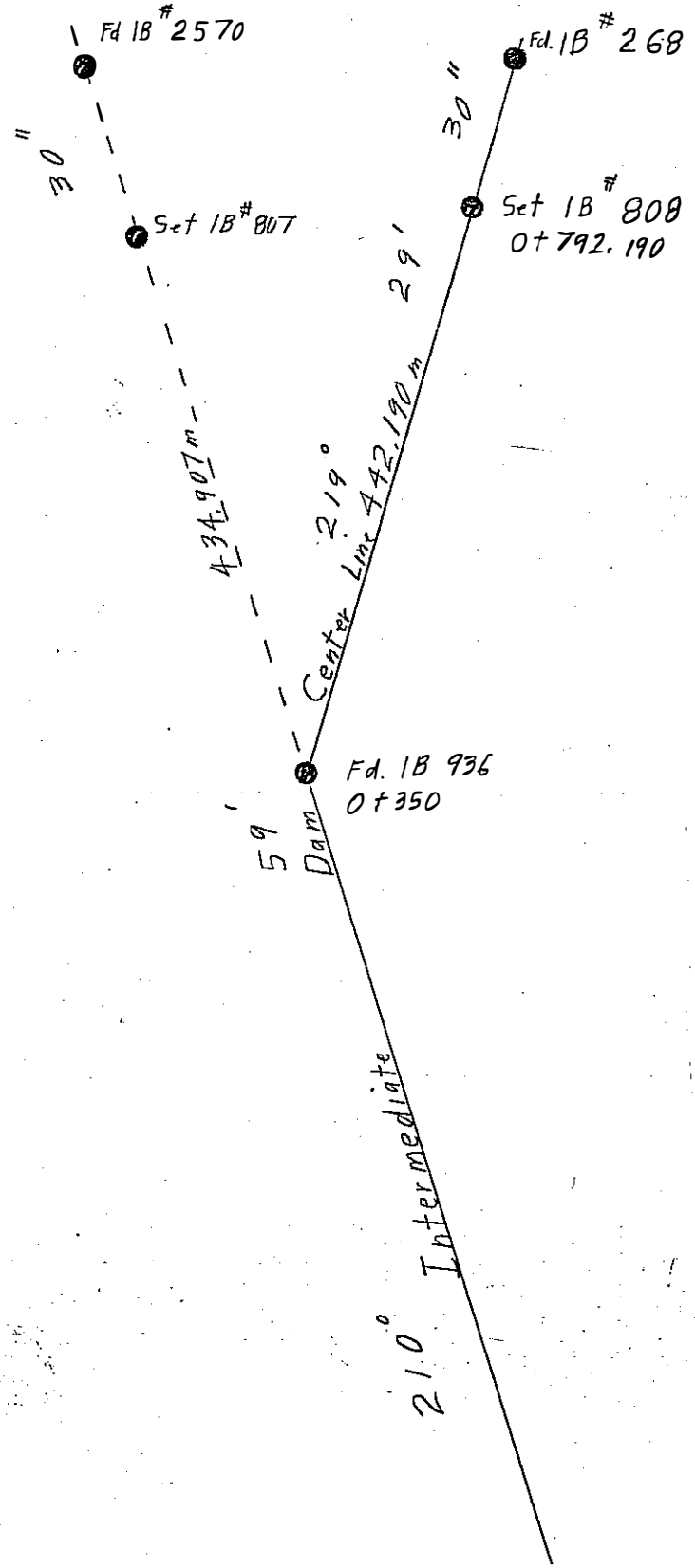
UNDERHILL ENGINEERING LTD.
UNDERHILL & UNDERHILL

Date July 22 1981 Sheet 1 of 1 003458

JOB No. Y2433 Client Golder Associates

Project Intermediate Dam & Reference Bars

Field Book 240 Page 132 Computed By BCW Checked By



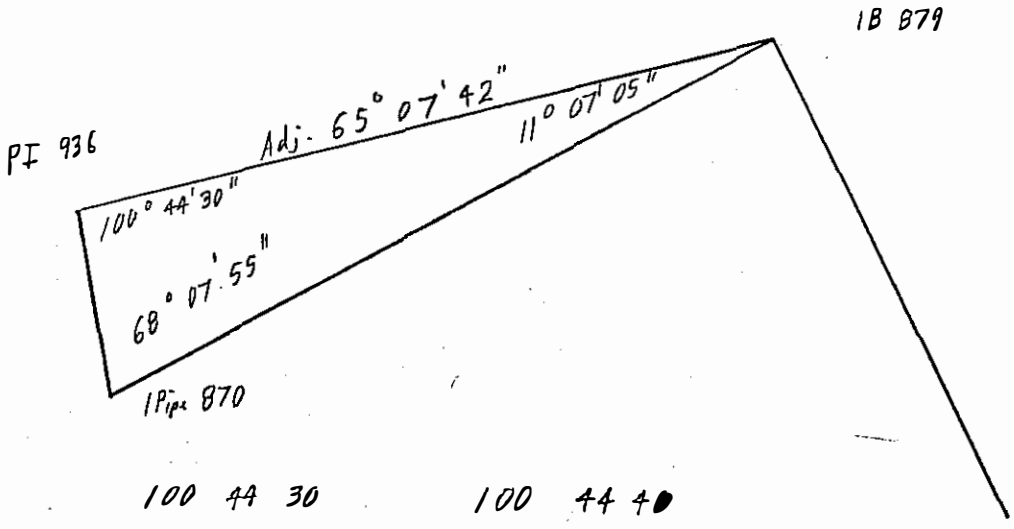
UNDERHILL ENGINEERING LTD.

Date July 7 1981 **UNDERHILL & UNDERHILL** Sheet 2 of 4

Job No. Y2433 Client Golder Associates

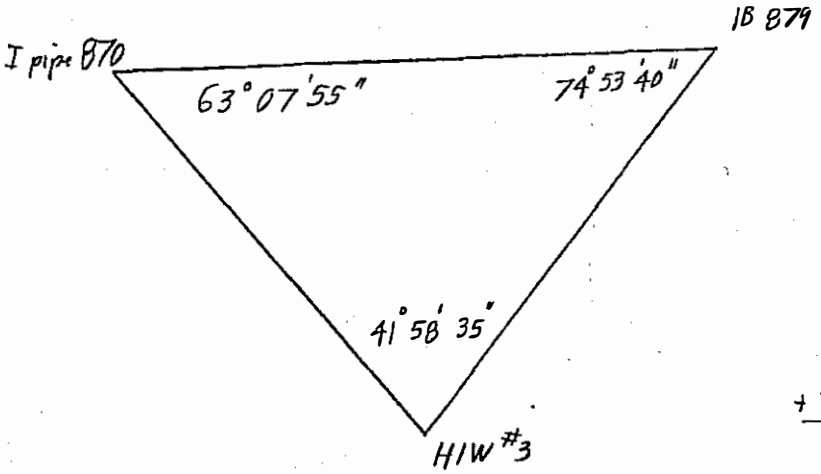
Project Intermediate Dam Control

Field Book 240 Page 93-96, 102 Computed By BCH Checked By



100	44	30
68	07	55
11	07	05
179	59	30

100	44	40
68	08	05
11	07	15
180	00	00



63	07	55
74	53	40
41	58	35
180	00	10

63	07	5
74	53	3
41	58	3
180	00	

11° 07' 15"
+ 74° 53' 37"
86° 00' 52"

YES 5/12

UNDERHILL & UNDERHILL

Y2433

Page 3 of 4

TITLE Intermediate Dam Control

Calc. by BC Walk

Chkd. by

Field Book 240 page 93-96 102

STATION	BEARING	DISTANCE	LAT.	DEP.	ADJ. LAT.	ADJ. DEP.
HIW #3					1443.685	1302.395
I Pipe 870	297° 08' 19"	898.45			1853.51	502.85
IB 879					2219.27	1006.425
I Pipe 870	234° 00' 27"	622.41			1853.49	502.84
PI 936					1972.00	473.00
I Pipe 870	165 52 22	122.22			1853.48	502.83
PI 936					1972.00,	473.00
IB 236	219° 29' 30"	523.73			1567.829	139.926
I Pipe 870	51° 47' 33"	461.85			1853.49	502.84
I Pipe 870				mean	1853.49	502.84
	Note:	Keeping existing control fixed as true.				

YAS 6/12

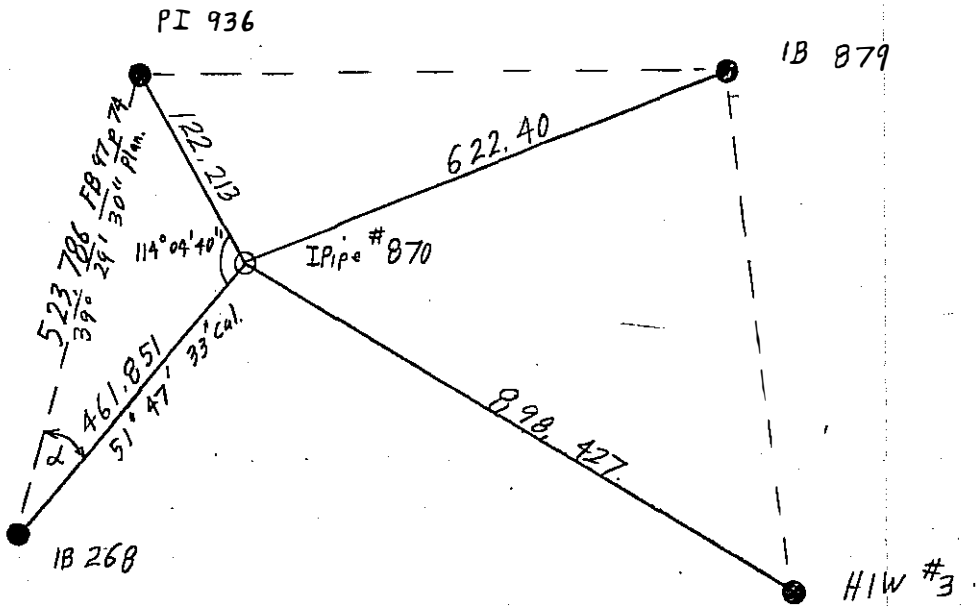
UNDERHILL ENGINEERING LTD.

Date July 7 1981 **UNDERHILL & UNDERHILL** Sheet 4 of 4

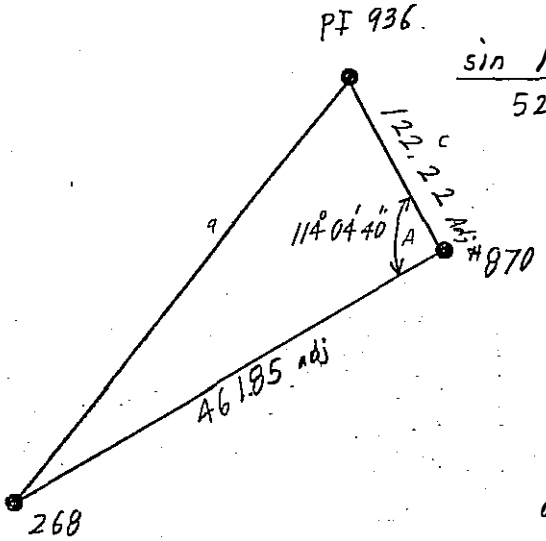
Job No. Y2433 Client Golder Associates

Project Intermediate Dam Control

Field Book 240 Page 93-96, 102 Computed By BCW Checked By



228° 44' 10"
− 114° 39' 30"
114° 04' 40"



$\frac{\sin 114° 04' 40"}{523.730} = \frac{\sin \alpha}{122.213}$ $\alpha = 12° 18' 03"$

∴ 39° 29' 30 + 12° 18' 03" = 51° 47' 33"

$a^2 = b^2 + c^2 - 2bc \cos A$

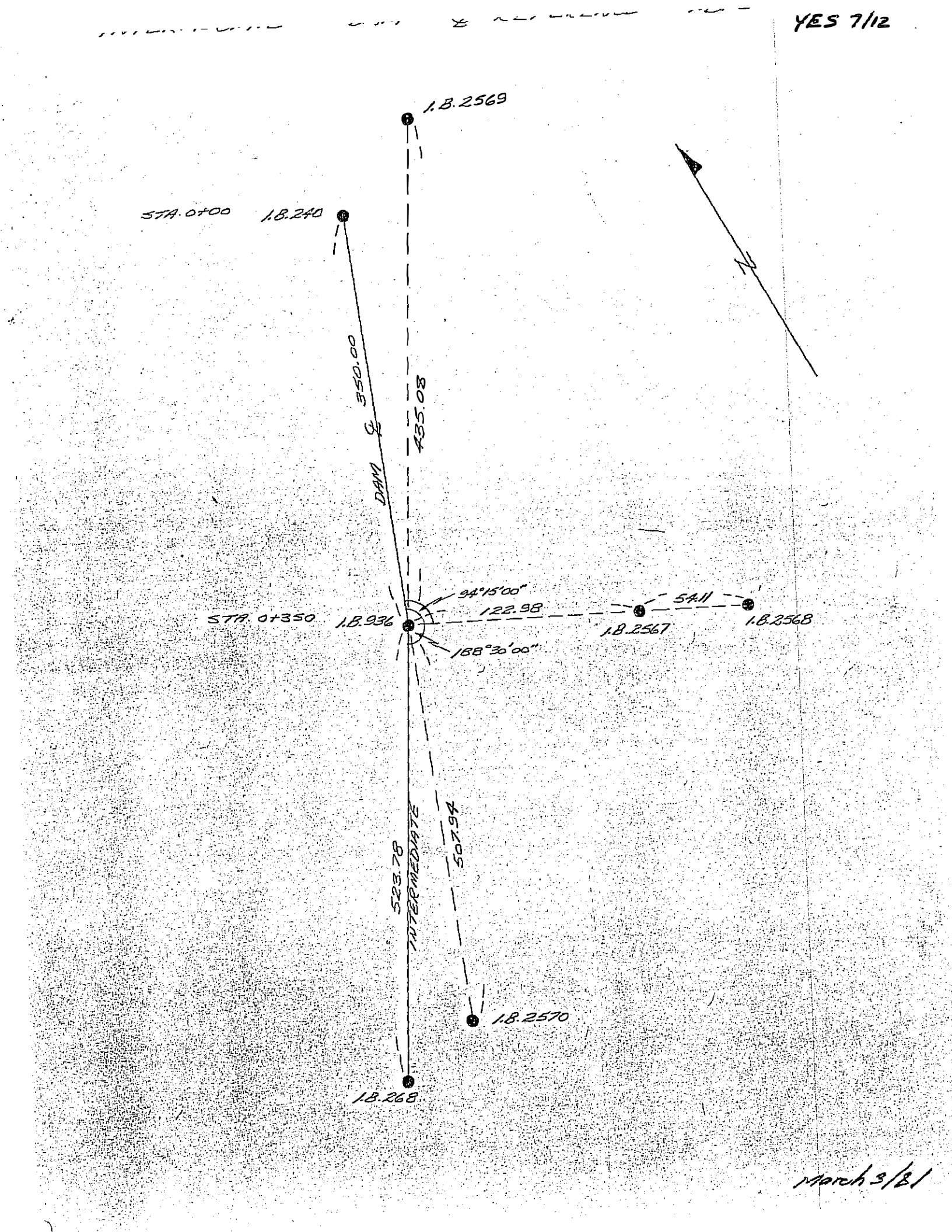
$461.85^2 + 122.22^2 - 2(461.85)(122.22) \cos 114° 04' 40$

=

a = 523.738 as check.

523.730 field

YES 7/12



March 3/81