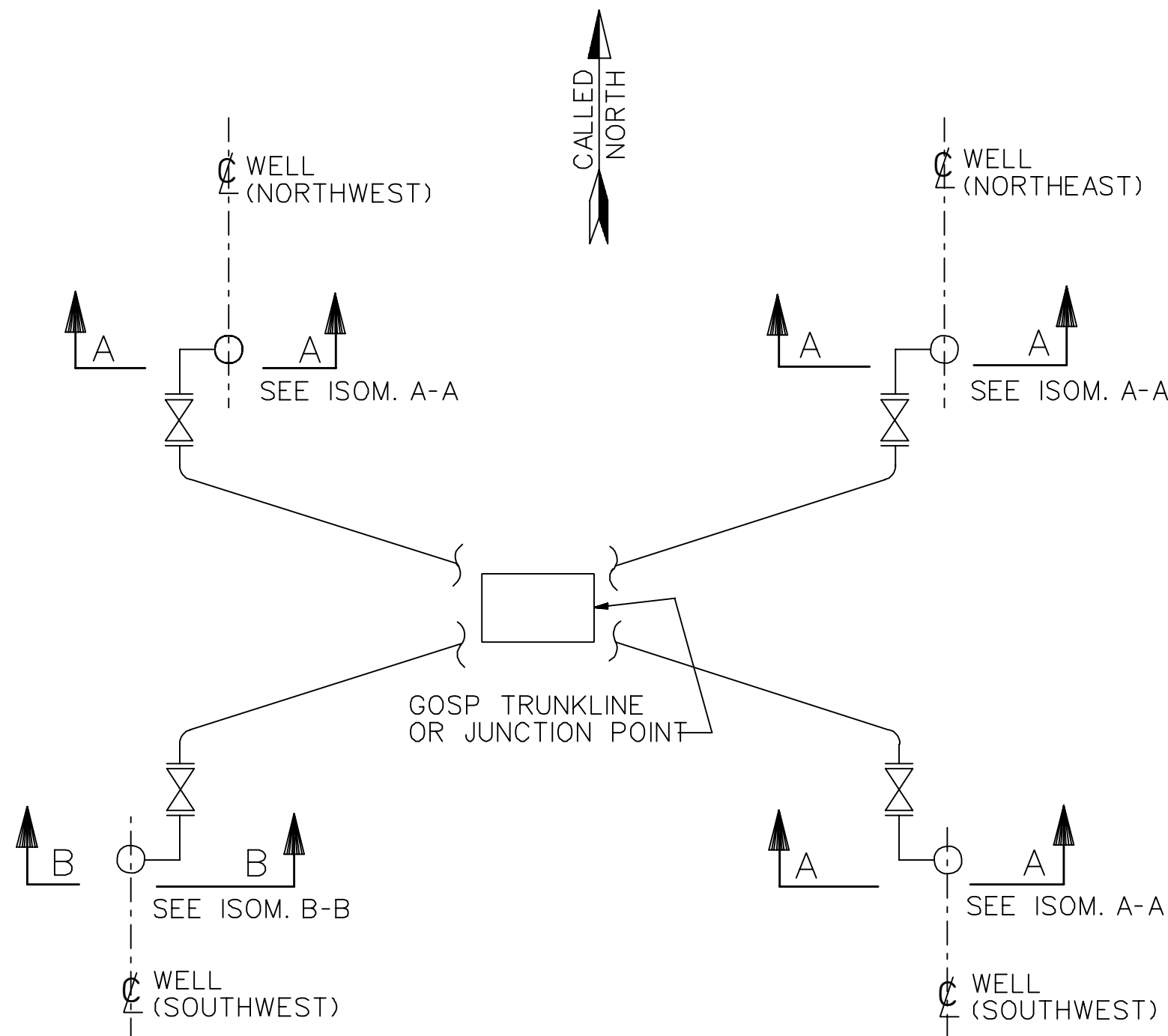
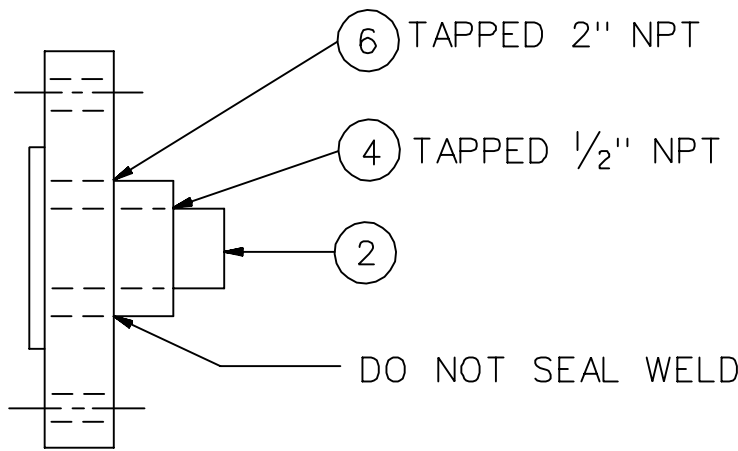


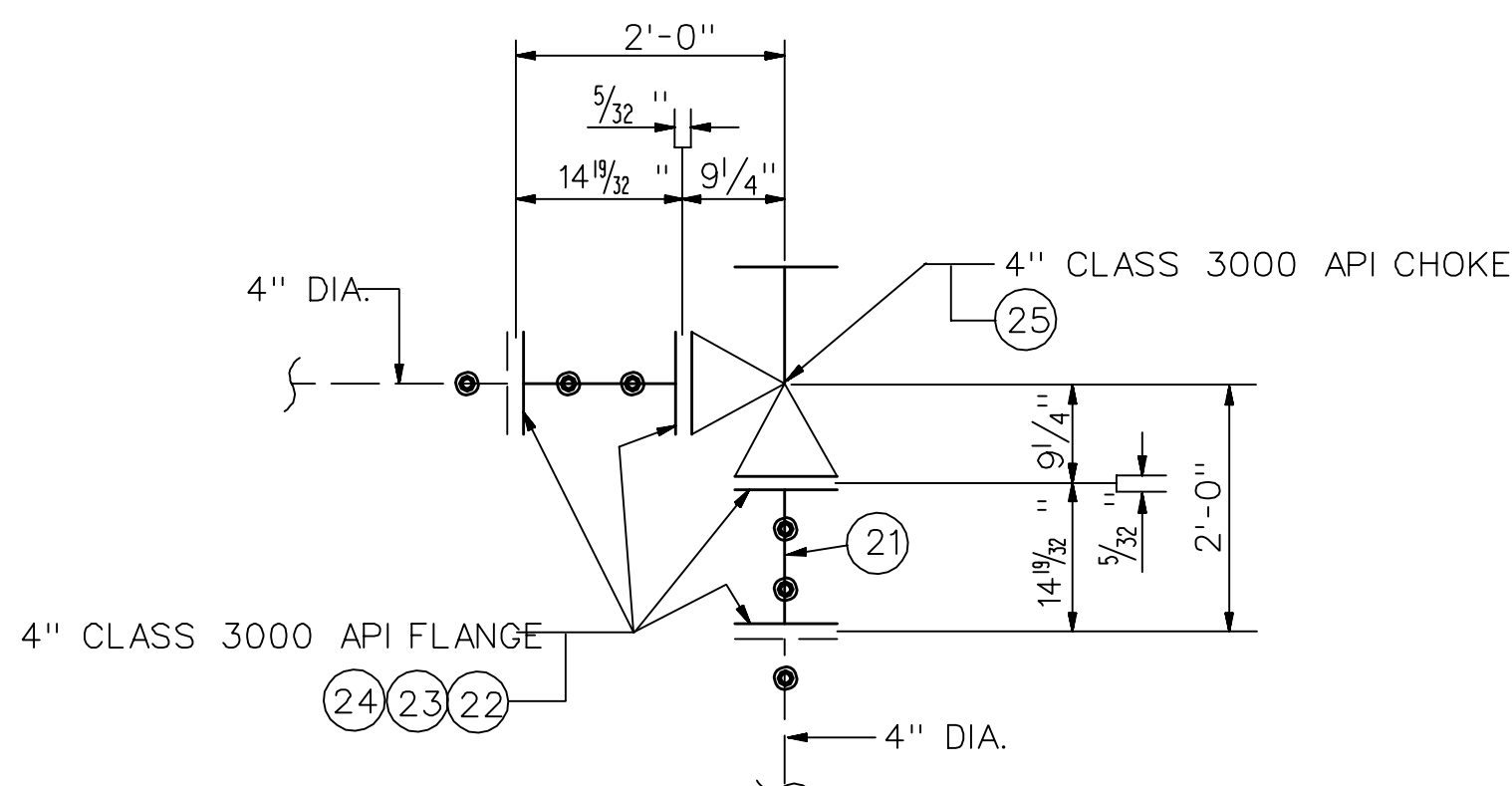
00	100	999930	AA-036529	7	066
NO.	REV.	NO.	DRAWING NUMBER	INDEX	PLANT NO.



SCHEMATIC ORIENTATION OF
WELL HEAD PIPING
(SEE NOTE 2)

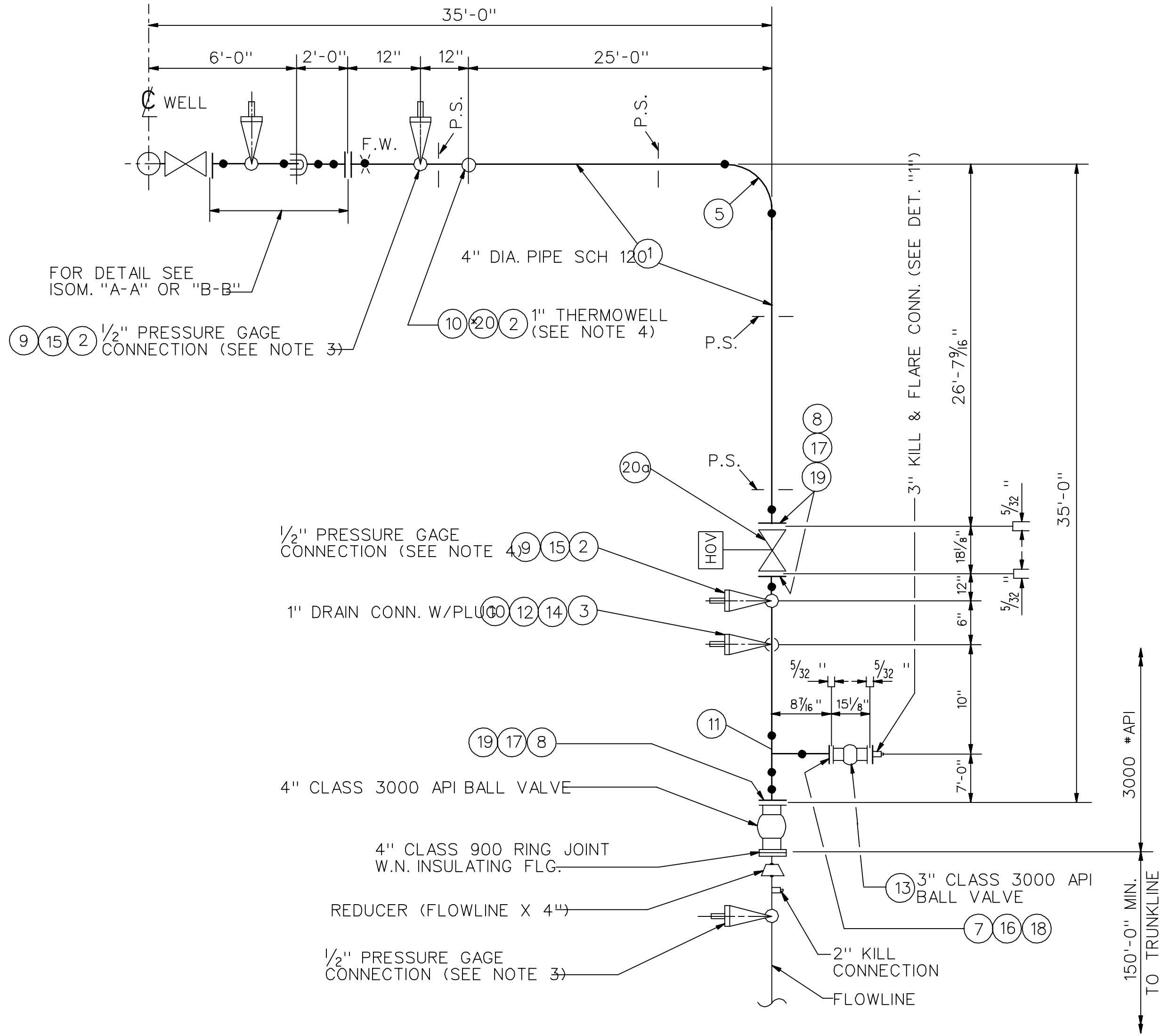


DETAIL 1

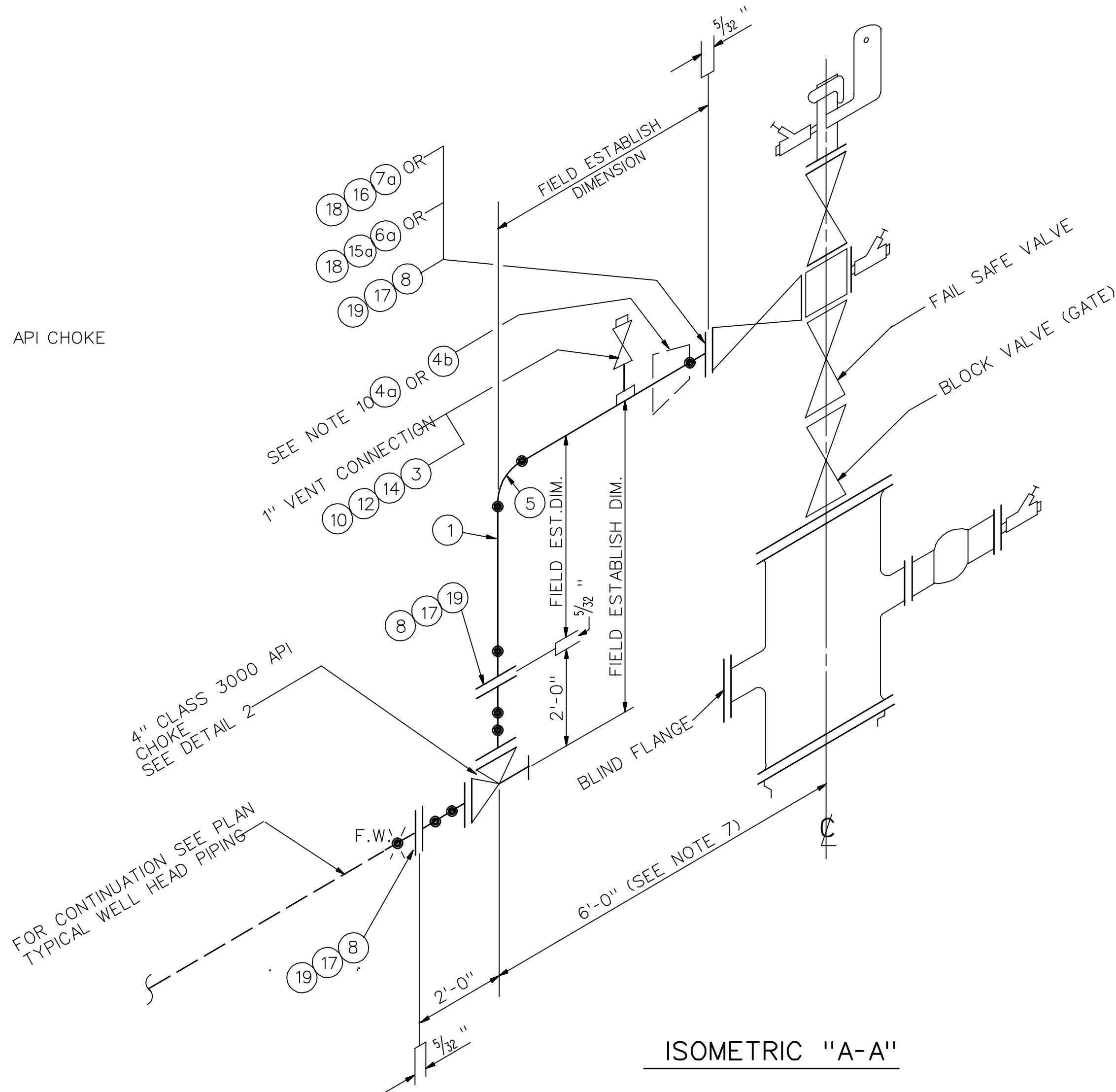


DETAIL 2 (ALTERNATIVE)
(4" CLASS 3000 API CHOKE)

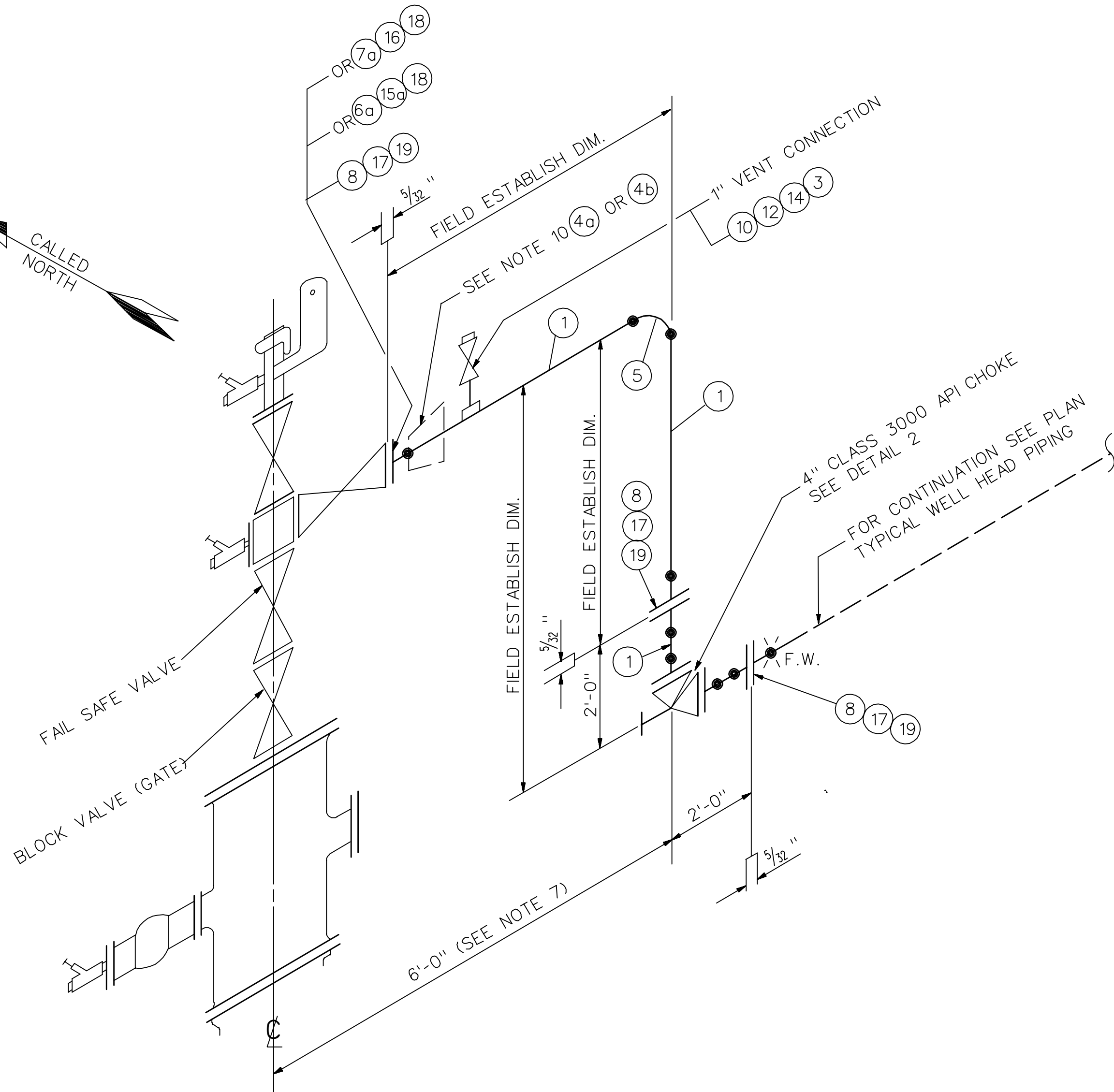
NOTE: FLANGED L.R. ELBOW CAN BE
INSTALLED AS ALTERNATIVE
FOR THE CHOKE .



PLAN
TYPICAL WELL HEAD PIPING



ISOMETRIC "A-A"



ISOMETRIC "B-B"

LIST OF MATERIALS (FOR ONE WELL HEAD PIPING INSTALLATION ONLY)				
DWG. CODE	STOCK NO.	QTY.	ISSUE UNIT	DESCRIPTION
1	01-167-415	80	FT	PIPE: STL; API 5L GR. B; 4" X 0.438" W.T.
2	02-120-458	4	EA	PLUG: PIPE, BAR STOCK, C.S., 1/2"
3	02-120-461	2	EA	PLUG: PIPE, BAR STOCK, C.S., 1"
4	02-120-464	1	EA	PLUG: PIPE, BAR STOCK, C.S., 2"
4a	02-221-416	1	EA	REDUCER: B.W., C.S., CONC. 4" X 2" (0.438" W.T. x 0.344" W.T.)
4b	02-221-420	1	EA	REDUCER: B.W., C.S., CONC. 4" X 3" (0.438" W.T. x 0.438" W.T.)
5	02-277-730	3	EA	ELBOW: B.W.; C.S., 90° L.R. X 0.438" W.T.
6	02-375-414	1	EA	FLANGE: BLIND, F.S., R.J., CLASS 3000 API, 3"
6a	02-393-590	1	EA	FLANGE: W.N, F.S., R.J., CLASS 3000 API, 2" x 0.344" W.T.
7	02-393-598	1	EA	FLANGE: W.N, F.S., R.J., CLASS 3000 API, 3" x 0.300" W.T.
7a	02-393-608	1	EA	FLANGE: W.N, F.S., R.J., CLASS 3000 API, 3" x 0.438" W.T.
8	02-393-611	10	EA	FLANGE: W.N, F.S., R.J., CLASS 3000 API, 4" x 0.438" W.T.
9	XX-XXX-XXX	2	EA	BOSS: WELDING, C.S., 1/2", CLASS 6000* OWG
10	02-457-478	3	EA	BOSS: WELDING, C.S., 1", CLASS 6000* OWG
11	02-605-418	1	EA	TEE: BW, 4"x4"x3" (4" x 0.438" W.T., 3" x 0.300" W.T.)
12	02-672-238	2	EA	NIPPLE: PIPE, API 5L GR. B 1" x CLOSE
13	04-604-823	1	EA	VALVE: BALL, FLANGED., R.J., CLASS 3000 API, 3"
13a	04-604-830	1	EA	VALVE: BALL, FLANGED., R.J., CLASS 3000 API, 4"
14	04-238-406	2	EA	VALVE: GATE, THRD, C.S., CLASS 1500, 1"
15	04-796-621	2	EA	VALVE: GAGE, SHUT-OFF, F.S., CLASS 10,000 45°, 1/2"
15a	06-142-710	1	EA	GASKET: R.J, CLASS 3000 API, 2"
16	06-142-717	3	EA	GASKET: R.J, CLASS 3000 API, 3"
17	06-142-724	7	EA	GASKET: R.J, CLASS 3000 API, 4"
18	10-354-550	32	EA	BOLTS: STUD, STL, W/NUTS, 7/8" DIA. x 6" LG. FOR 3" & 2" FLGS.
19	10-355-688	56	EA	BOLTS: STUD, STL, W/NUTS, 1/8" DIA. x 7" LG. FOR 4" FLGS.
20	34-465-561	1	EA	THERMOWELL, SST, 1" MALE, 1/2" FEMALE
20a		1	EA	VALVE: GATE, FLGD., R.J., CLASS 3000 API, 4" (HYDRAULIC OPERATED)

MATERIALS FOR ALTERNATIVE DETAIL				
21	01-167-415	2	FT	PIPE: STL; API 5L GR. B; 4" x 0.438" W.T.
22	02-393-611	2	EA	FLANGE: W.N.; F.S.; R.J.; CLASS 3000 API, 4" x 0.438" W.T.
23	06-142-724	2	EA	GASKET: R.J.; CLASS 3000 API, 4"
24	10-355-688	16	EA	BOLTS: STUD, STL, W/NUTS, 1/8" DIA. x 7" LG. FOR 4" FLGS.
25	45-XXX-XXX	1	EA	BEAN: FLOW ADJUSTABLE: R.J., 4" CLASS 3000 API, 3" ORIFICE

- NOTES:
1. BLIND FLANGE ON OFF SIDE OF TREE EQUIPPED WITH 1/2 " PIPE PLUGS. REINSTALL PLUGS IN GAGE SHUT-OFF VALVES AFTER THESE ARE INSTALLED IN BLIND FLANGES.
 2. ALL WELL HEAD AND CHRISTMAS TREE VALVE HAND-WHEELS AND OPERATORS ARE TO FACE NORTHWARD.
 3. SEAL-WELD GAUGE SHUT-OFF VALVES, 2 PASSES WITH 1/8 " E7018 WELDING ELECTRODE.
 4. INSTALL THERMOWELL IN ACCORDANCE WITH STD. DWG. AB-036019.
 5. GRIND INSIDE WELD OF MATING FLANGE OF 3" BRANCH OF KILL CONNECTION.
 6. INSTALL REDUCER FOR 2" AND 3" VALVE TUBING CONNECTION.
 7. MAINTAIN AT 6'-0" WHENEVER POSSIBLE.

REFERENCE DRAWING

ASSEMBLY AND DETAIL OF THERMOWELL	AB-036019
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TYPICAL INSTALLATION DRAWING

THIS DRAWING SUPERSEDES
STD. DRAWING AA-036529.

03	JAN/98	ESSD CAB	CHANGED STOCK NO. OF ITEM 10 FROM '02-455-428' TO '02-457-478'.			
02	12-14-87	RLO	CHANGED NOTE NO. FROM 12 TO 7.			
1	07-12-86	RLO	REVISED AND ADDED TYPICAL INSTALLATION DRAWING.			

REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT.	APPD.
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SAUDI ARABIAN OIL COMPANY

DRAWN BY Naeem Latif CHECKED BY _____ SCALE: _____ NONE

DATE STARTED 03-13-1985 DATE COMPLETED 03-18-1985

OPR'G. DEPT. _____ ENG. DEPT. _____

APP'D. FOR CONST. _____

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED

CERTIFIED BY _____ DATE _____

2", 3" OR 4" SINGLE TUBING CONNECTION
WELLHEAD PIPING
FOR ONSHORE WELLS

PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.
990	L	AA-036565	001	03