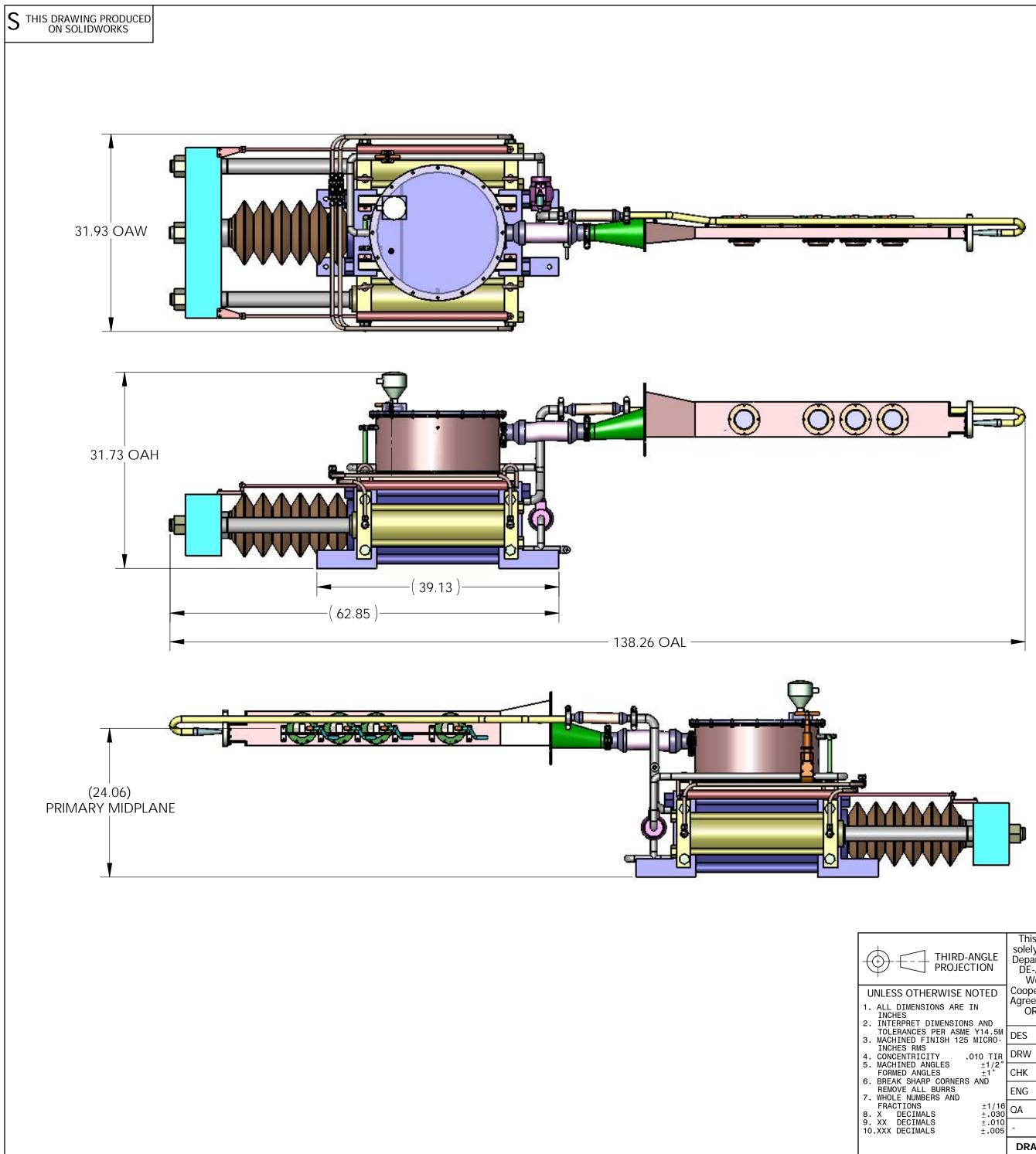
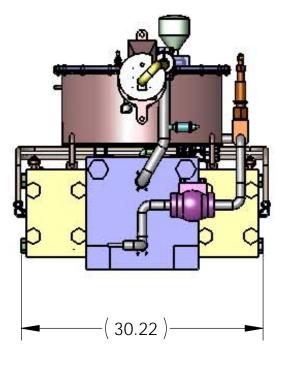


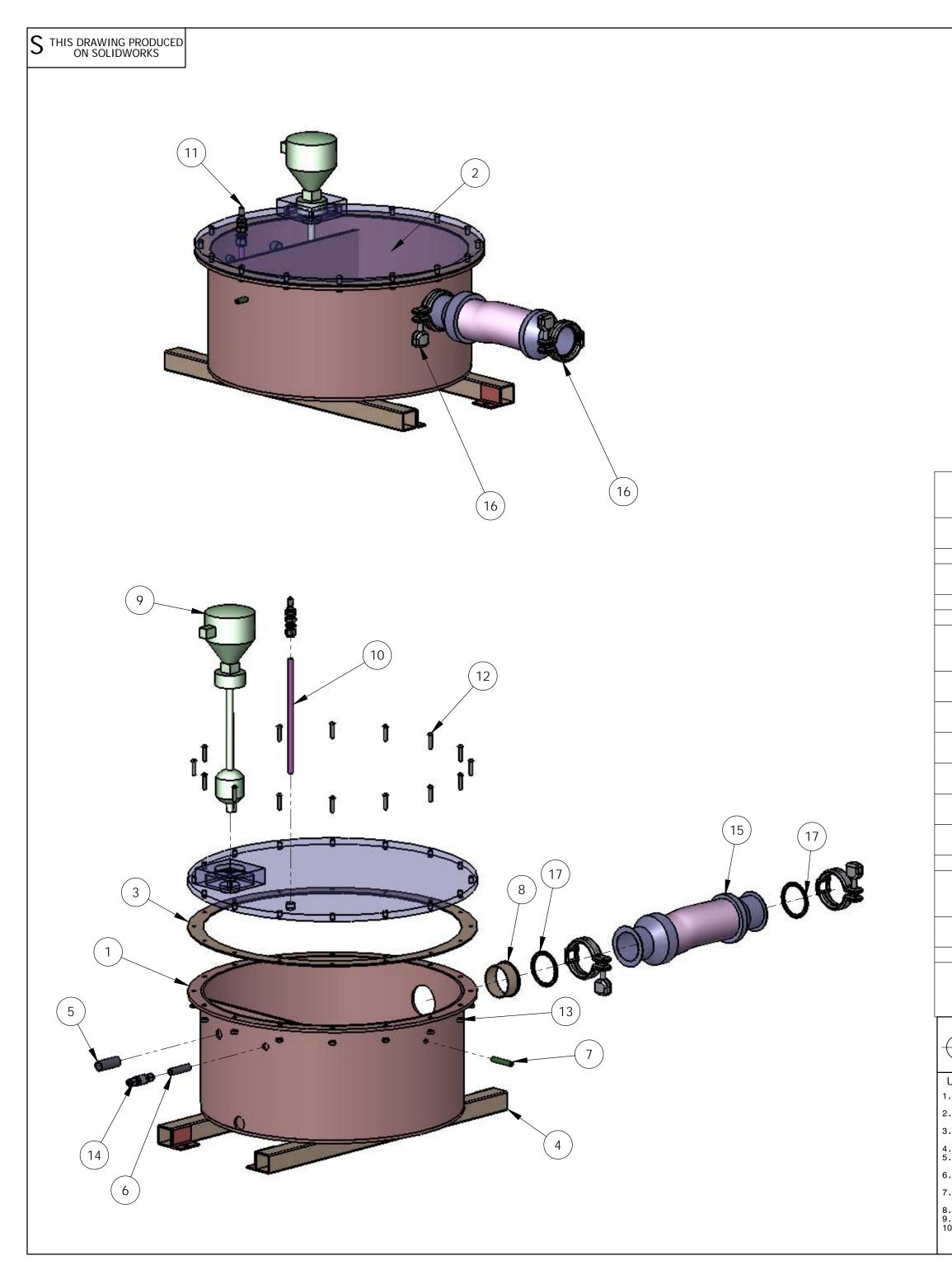
-	-		J		,				
5	1	h	g inlet assy hjt			-		203-H.	JT-0680
4	1	hg c	lischarge assy hjt			-		203-H.	JT-0670
3	1	sur	mp tank assy hjt			-		203-H.	JT-0640
2	1	р	ri tube assy hjt			-		203-H.	JT-0610
1	1	syring	je cylinder assy hjt			-	PROVIDED BY AIRLINE HYDRAULICS	N	/A
ITEM	Default/QTY.		NAME		MATE	ERIAL	DESCRIPTION	DV	NG
ALL DIME INCHES	THIRD-ANGLE PROJECTION	solely f Departi DE-A0 Wor Coopera Agreem	Irawing was prepared for use in work perfor ment of Energy contra C05-000R22725 and a k for Others Agreeme ative Research and D lents. This drawing is IL and must be return request.	med under act number applicable ents and evelopment property of		opera col	CRIDGE NATIONAL ated for the U.S. Department ntract DE-AC05-000R22725 REMOTE SYSTEMS JCLEAR SCIENCE & TECHNO	of Energ Oak Ridgo GROUP	iy under e, TN
MACHINED	ES PER ASME Y14.5M FINISH 125 MICRO-	DES	V GRAVES	06/04/2005		МЕ	RIT EXPERIMENT		
INCHES R CONCENTR	ICITY .010 TIR	DRW	T OQUIN	06/04/2005					
MACHINED FORMED A		СНК				HG E	DELIVERY SYSTE	VI	
REMOVE A	ARP CORNERS AND LL BURRS MBERS AND	ENG	V GRAVES	06/04/2005		PRIMARY	Y CONTAINMENT	ASSY	
FRACTION X DECI	S ±1/16	QA			CAD FI	LE	PREV ASSY	SCALE	SHEET
XX DECI	MALS ±.010					SYRINGE HJT	203-HJT-0500	1:12	1 of 2
.XXX DECI	MALS ±.005	-	-	-		DWG NO.			REV
				DATE			$\Delta \Delta \Delta$ IIIT $\Delta / \Delta \Delta$		í A I



NOTE: SYRINGE STROKE 15 INCH



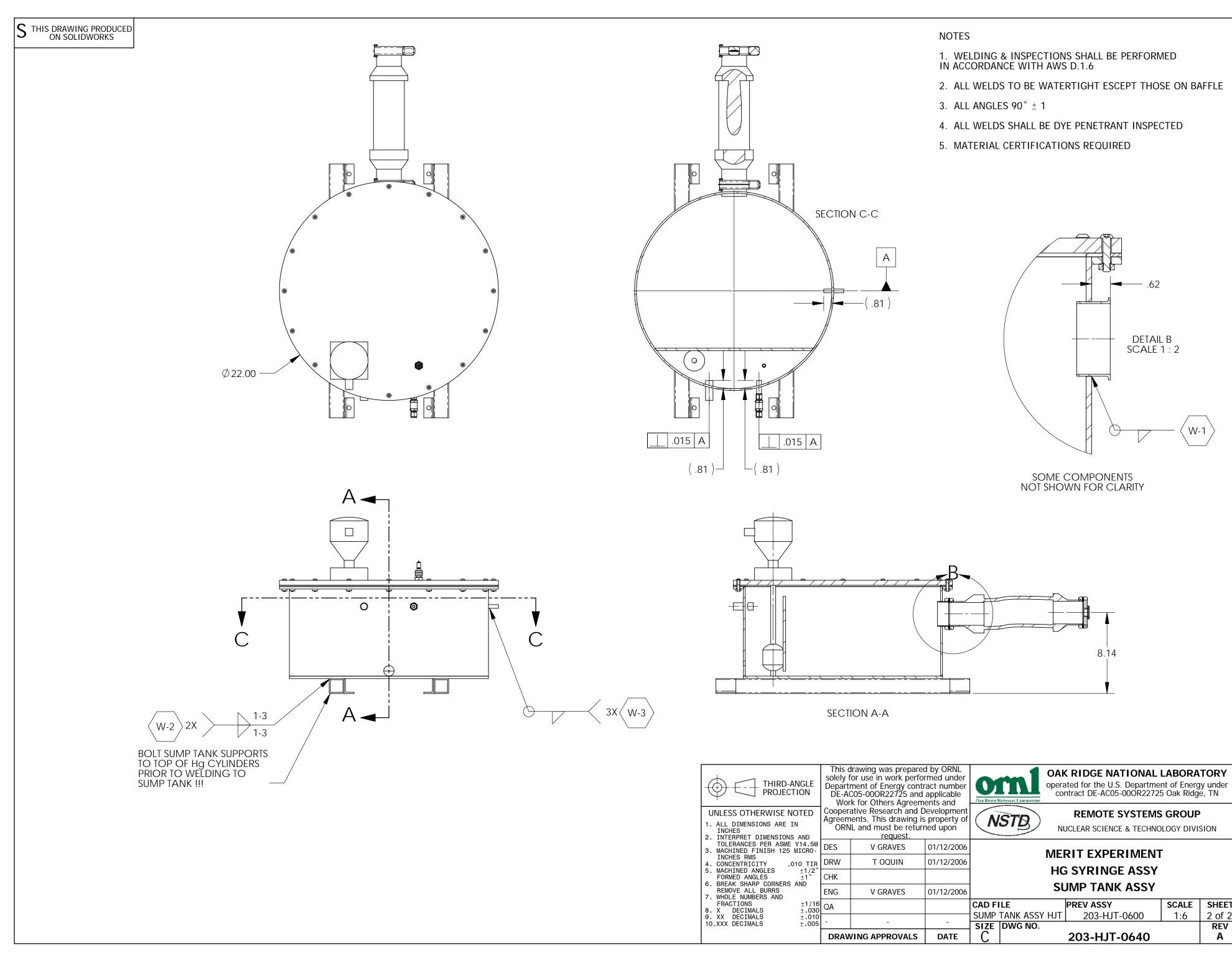
	solely f Departi DE-A Wor	Irawing was prepared for use in work performent of Energy contro C05-000R22725 and fk for Others Agreem	rmed under ract number applicable ents and		OAK RIDGE NATIONA operated for the U.S. Depart contract DE-AC05-000R22	ment of Energ	v under		
JNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND	Coopera Agreem	ative Research and E ients. This drawing is IL and must be return request.	Development s property of	NSTP REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION					
TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-	DES	V GRAVES	06/04/2005		MERIT EXPERIME	ΝΤ			
INCHES RMS CONCENTRICITY .010 TIR MACHINED ANGLES +1/2°	DRW	T OQUIN	06/04/2005		HG DELIVERY SYST				
MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND	СНК								
REMOVE ALL BURRS	ENG	V GRAVES	06/04/2005	PRIM	ARY CONTAINMEN	NT ASSY			
FRACTIONS ±1/16 X DECIMALS ±.030	QA			CAD FILE	PREV ASSY	SCALE	SHEET		
XX DECIMALS ±.010	_	_	_	HG SYRINGE	HJT 203-HJT-0500	1:12	2 of 2		
.XXX DECIMALS ±.005				SIZE DWG NO.			REV		
	DRAW	VING APPROVALS	DATE		203-HJT-0600		A		



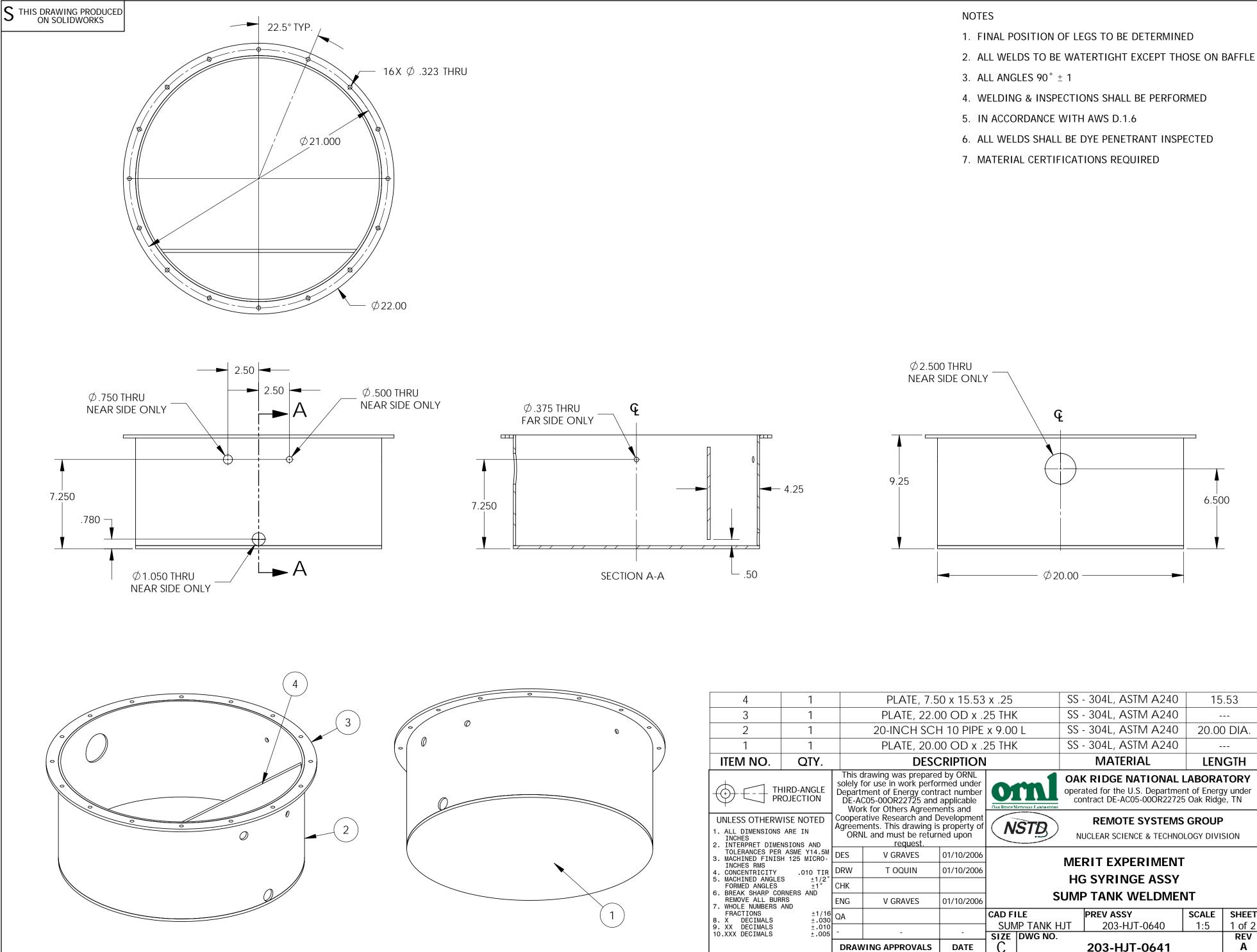
- 1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
- 2. ALL WELDS TO BE WATERTIGHT EXCEPT THOSE ON BAFFLE

- 3. ALL ANGLES 90 $^{\circ}$ ± 1
- 4. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 5. MATERIAL CERTIFICATIONS REQUIRED

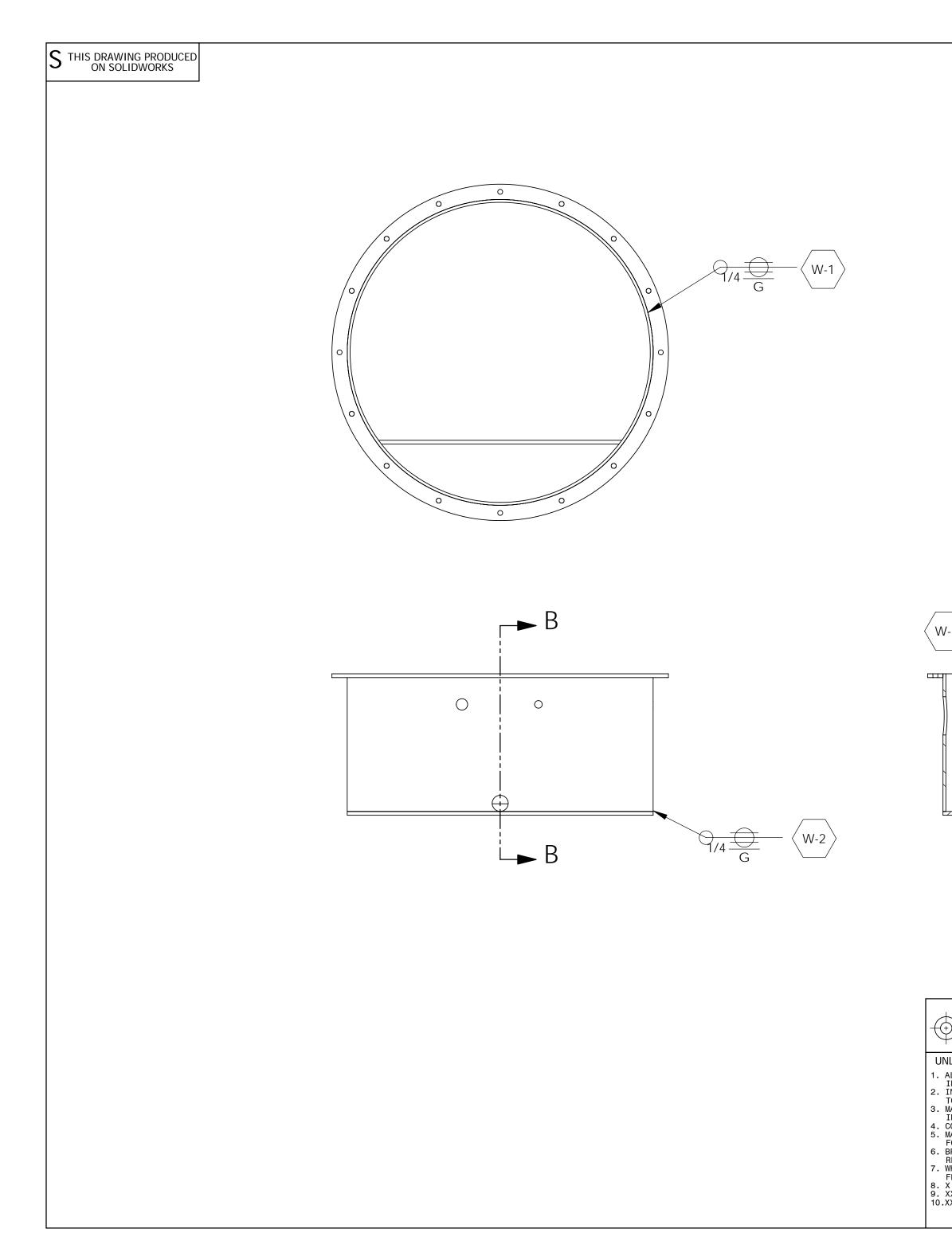
		DRAW	ING APPROVALS	DATE	C			203-HJT-0640		A		
. XX DECIM D.XXX DECIM			-	-		DWG NO.		203-HJT-0600	1:6	1 of 2 REV		
FRACTIONS X DECIM	ALS ±1/10 ±.030	0 27				le Tank Ass			SCALE	SHEET		
REMOVE AL	L BURRS	ENG	V GRAVES	01/12/2006			50	IMP TANK ASSY				
. MACHINED FORMED AN . BREAK SHA		СНК					_	SYRINGE ASS				
INCHES RM . CONCENTRI	CITY .010 TIR		T OQUIN	01/12/2006								
. MACHINED	TOLERANCES PER ASME Y14.5M DES V GRAVES 01/12/2006				MFG		іт					
INCHES INTERPRET	LL DIMENSIONS ARE IN ODNI and must be returned upon		neu upon			NL	ICLEAR SCIENCE & TECHN	NOLOGY DIVI	SION			
. ALL DIMEN	HERWISE NOTED SIONS ARE IN	Agreem	ents. This drawing is	s property of	(N	STO)					
	7	Worl	C05-00OR22725 and k for Others Agreem ative Research and D	ents and	-	ATIONAL LABORATORY		htract DE-AC05-000R227				
⊕. <u></u> [THIRD-ANGLE	Departn	or use in work performent of Energy contri	ract number	01	m	opera	ted for the U.S. Departm	nent of Energ	y under		
		This d	rawing was prepared	d by ORNL			ΟΑΚ		L LABORA	TORY		
ITEM	Hg Suppress ed/QTY.		NAME		MA	TERIAL	[DESCRIPTION	DW	G		
1	1		sump tank hjt					SUMP TANK	203-HJ1	-0641		
2	1		sump tank cover	hjt		EXAN	SHEF	T, 22.000 OD x .500 THK	203-HJ1			
					SHE	et, 50A	CLIEF	#86715K869				
3	1		np tank cover gas			1/8" INA-N	М	CMASTER-CARR	203-HJ1	-0643		
4	2		sump tank support	t hjt	,,,,,,,,				203-HJ1	-0647		
5	1		tubing			- 304L, M A249	.750	OD x .065 WALL x 2.000 L	N/.	Ą		
6	1		tubing		- 304L, M A269				Ą			
7	1		tubing		- 304L, M A269	.375 OD x .065 WALL x N/A 2.000 L			A			
8	1	ferr	ferrule - sanitary kwik-clamp buttweld			- 304L		2.50" TUBE N/A				
9	1		omega level sensor				LV	FLOATEK 50-S001-12.0-0.25	N/	Ą		
10	1		hg straw hjt			- 304L IBING	5/8" OD X .065 WALL (16 GA.) x 10.00			Ą		
11	1	QC S	nentation Quick-C ieries_SS-QC6-D1-6 jelok Bulkhead Tub	00 3 8		SWAGELOK QC SERIES 3/8"				Ą		
12	16	socket	t button head cap screw_ai		SS	- 18-8		BHCS - 1/4-20	N/.	А		
13	16		PEM WNS-0420-0 -		SS	SS - 18-8 PEM WELDNUT - 1/4-20			N/.	N/A		
14	1	Swa Va	agelok Compact (alves_SS-CHS4-EP-1	Check I_1_4			SWAGELOK 1/3 PSI CHK N/			Ą		
15	1		flex discharge lin	е			PAR	KER 2.5" HOSE TBD	N/.	Ą		
16	2	Je	nsen Clamp #JC1	3HDR	SS	- 304	JENS	SEN #JC13HDR - 6" OD CLAMP	N/.	Ą		
17	2	ł	kwik-clamp gasket	t hjt	E	PDM		VAGELOK JC40E CLAMP GASKET - 6" OD	N/	Ą		



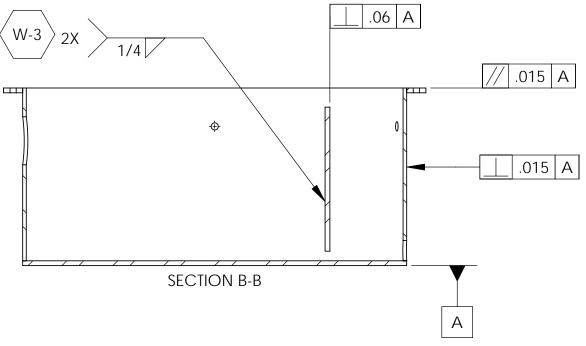
REAK SHARP CORNERS A		•••••							
EMOVE ALL BURRS	שאור	ENG	V GRAVES	01/12/2006		SL	JMP TANK ASSY		
RACTIONS DECIMALS	±1/16 ±.030	QA			CAD FI		PREV ASSY	SCALE	SHEET
K DECIMALS	±.010				SUMP	TANK ASSY HJT	203-HJT-0600	1:6	2 of 2
X DECIMALS	±.005	-	-	-	SIZE	DWG NO.			REV
		DRAV	VING APPROVALS	DATE	С		203-HJT-0640		Α
		DRAV	VING APPROVALS	DATE	C		203-HJT-0640		_



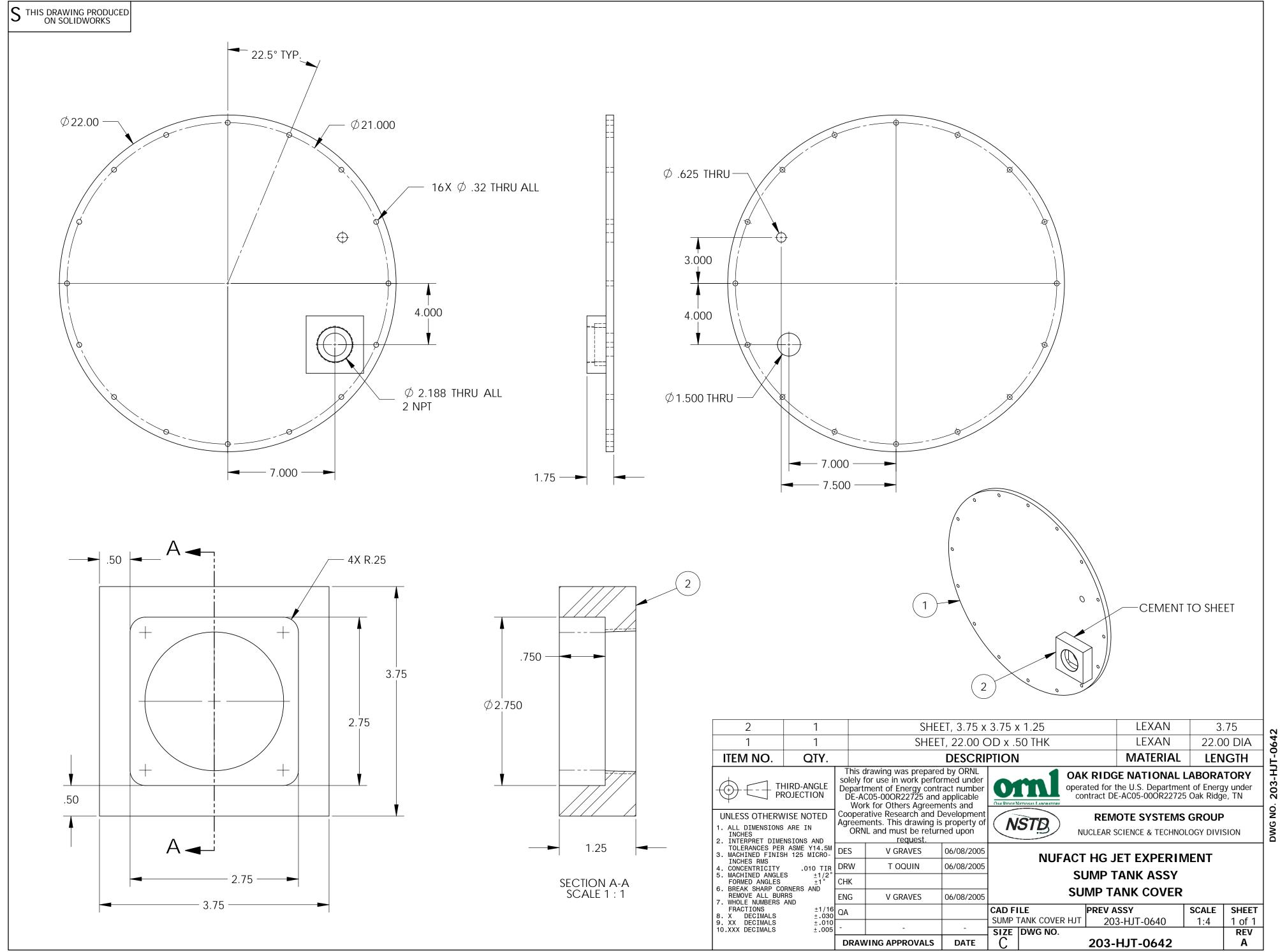
		DRAV	VING APPROVALS	DATE	С			203-HJT-0641		Α	
0.XXX DECIMALS	±.005	-	-	-		DWG NO.	·			REV	
FRACTIONS . X DECIMALS . XX DECIMALS	±1/16 ±.030 ±.010	QA			CAD FI SUN	i le 1p tank hjt		203-HJT-0640	SCALE 1:5	SHEET 1 of 2	
REMOVE ALL BURI	RS AND	ENG	V GRAVES	01/10/2006							
. MACHINED ANGLES FORMED ANGLES . BREAK SHARP CON	±1 [°]	СНК			HG SYRINGE ASSY						
INCHES RMS . CONCENTRICITY	.010 TIR	DRW	T OQUIN	01/10/2006							
TOLERANCES PER . MACHINED FINISH	ASME Y14.5M	DES	V GRAVES	01/10/2006	MERIT EXPERIMENT						
UNLESS OTHERW . ALL DIMENSIONS INCHES . INTERPRET DIMEN	ative Research and D nents. This drawing is IL and must be return request.	property of	REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION								
	IIRD-ANGLE OJECTION	solely f Depart DE-A Wor	Irawing was prepared for use in work performent of Energy contro C05-00OR22725 and k for Others Agreem	rmed under act number applicable ents and			operat	RIDGE NATIONAL I ted for the U.S. Department tract DE-AC05-000R22725	nt of Energ	y under	
ITEM NO.	QTY.		DESC	RIPTION				MATERIAL	LEN	GTH	Ŀ
1	1		PLATE, 20.0	0 OD x .2	25 THK		SS - 304L, ASTM A240				
2	1		20-INCH SCH	1 10 PIPE	x 9.00) L 🤤	SS -	304L, ASTM A240	20.00) DIA.	~
5	I		FLAIL, ZZ.U		20 1116	· ·	55 -	304L, A31101 A240	-		

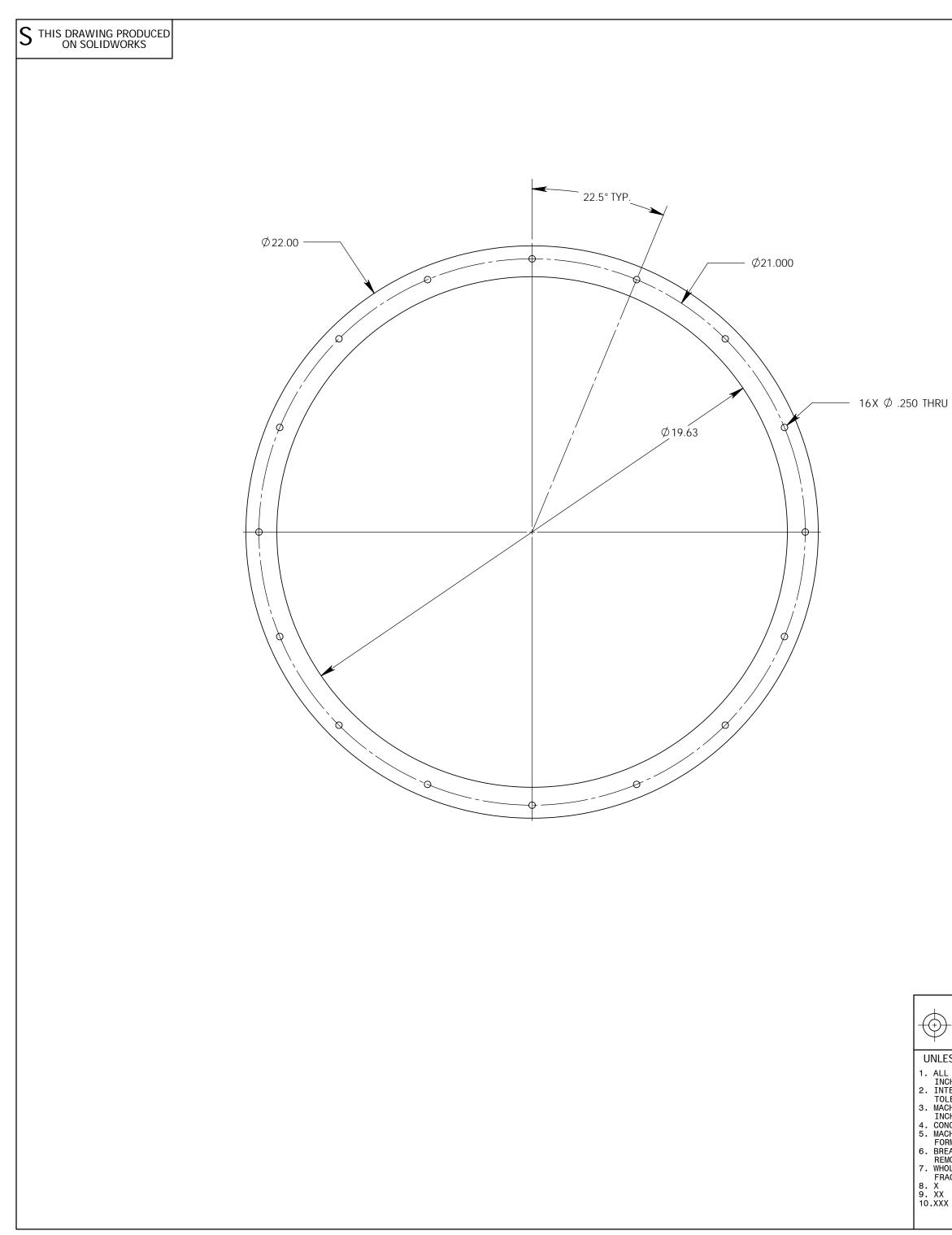


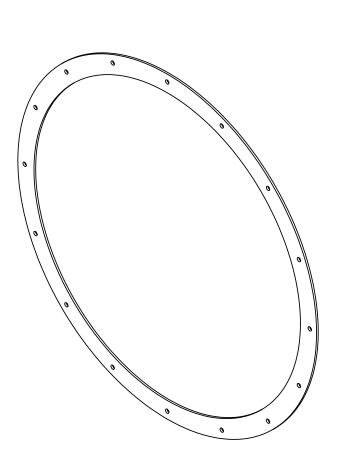
- 1. FINAL POSITION OF LEGS TO BE DETERMINED
- 2. ALL WELDS TO BE WATERTIGHT EXCEPT THOSE ON BAFFLE
- 3. ALL ANGLES 90 $^{\circ}$ \pm 1
- 4. WELDING & INSPECTIONS SHALL BE PERFORMED
- 5. IN ACCORDANCE WITH AWS D.1.6
- 6. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 7. MATERIAL CERTIFICATIONS REQUIRED



				i								
	solely Depart DE-A Wo	drawing was prepare for use in work perfo ment of Energy conti C05-00OR22725 and rk for Others Agreem	rmed under ract number applicable ients and	_	ope	K RIDGE NATIONAL rated for the U.S. Departme ontract DE-AC05-000R2272	nt of Enera	v under				
LESS OTHERWISE NOTED	Cooper	ative Research and E nents. This drawing is	Development		CTO	REMOTE SYSTEMS GROUP						
ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND	ORN	IL and must be return request.	ned upon		STA	NUCLEAR SCIENCE & TECHNOLOGY DIVIS						
TOLERANCES PER ASME Y14.5 MACHINED FINISH 125 MICRO		V GRAVES	01/10/2006									
INCHES RMS CONCENTRICITY .010 TIP		T OQUIN	01/10/2006				I					
ACHINED ANGLES ±1/2 FORMED ANGLES ±1°	СНК					G SYRINGE ASSY						
BREAK SHARP CORNERS AND REMOVE ALL BURRS VHOLE NUMBERS AND	ENG	V GRAVES	01/10/2006		SUM	IP TANK WELDME	NT					
FRACTIONS ±1/1 C DECIMALS ±.03	6 QA			CAD FI		PREV ASSY	SCALE	SHEET				
X DECIMALS ±.01	õ				<u>IP TANK HJT</u>	203-HJT-0640	1:4	2 of 2				
(XX DECIMALS ±.00	5	-	-	SIZE	DWG NO.			REV				
	DRAV	VING APPROVALS	DATE	I C		203-HJT-0641		Α				



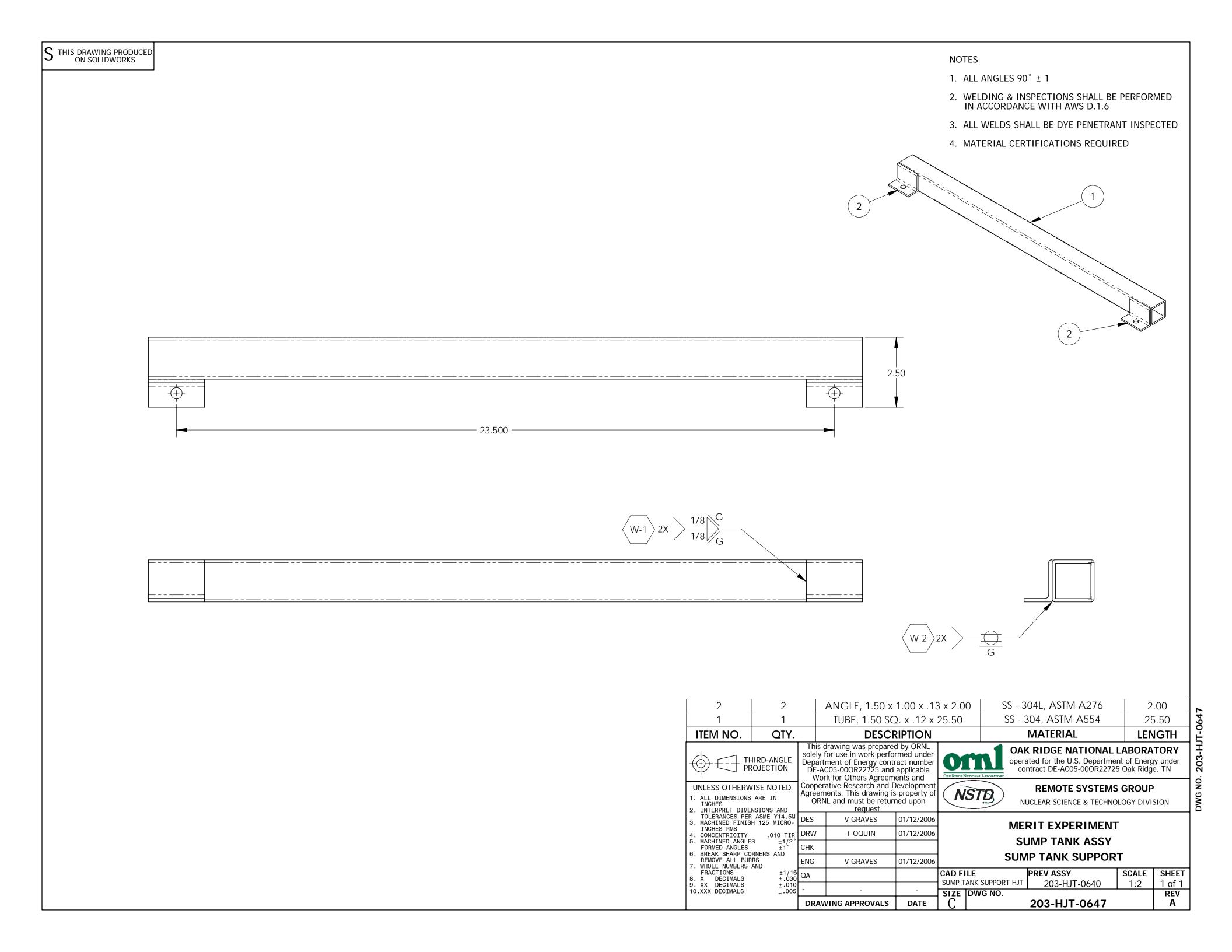


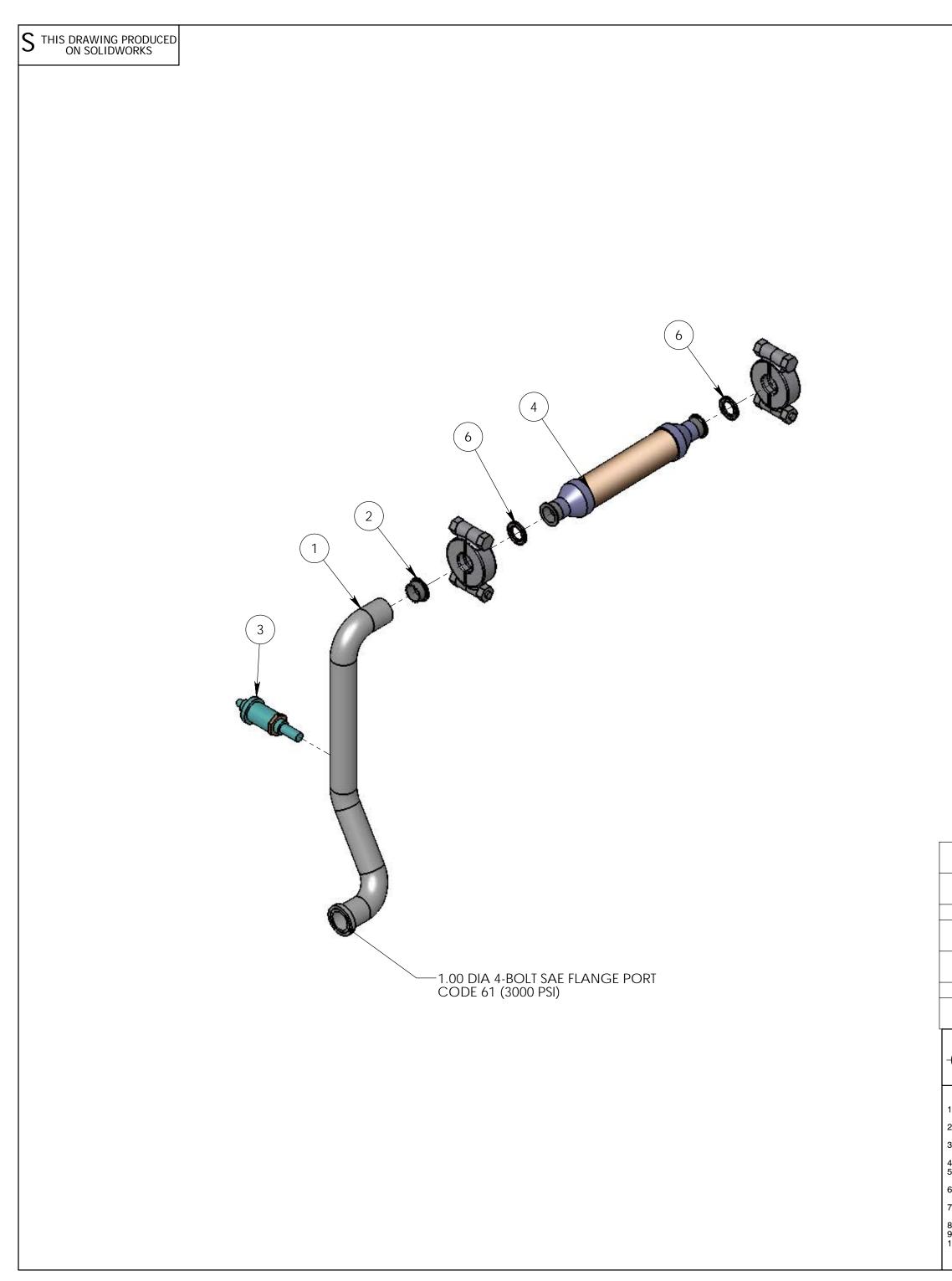


MATERIAL: 1/8" BUNA-N SHEET, 50A

THIRD-ANGLE PROJECTION	solely f Departr DE-A0	lrawing was prepared or use in work performent of Energy contr C05-000R22725 and k for Others Agreem	rmed under act number applicable	OAK RIDGE N		operate	RIDGE NATIONAL ed for the U.S. Departmen ract DE-AC05-000R22725	nt of Enera	v under
NLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND	Coopera	ative Research and D ents. This drawing is L and must be return request.	evelopment		NSTE NUCLEAR SCIENCE & TECHNOLOGY DIVI				
TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO-	DES	V GRAVES	07/10/2005						
INCHES RMS CONCENTRICITY .010 TIR	DRW	T OQUIN	07/10/2005		NUFA		HG JET EXPERIN		
MACHINED ANGLES ±1/2° FORMED ANGLES ±1°	СНК						MP TANK ASSY		
BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND	ENG	V GRAVES	07/10/2005		SUM	1P T/	ANK COVER GAS	KET	
FRACTIONS ±1/16 X DECIMALS ±.030	QA			CAD FI			PREV ASSY	SCALE	SHEET
XX DECIMALS ±.010	_	_	_		IK COVER GASKE	et hjt	203-HJT-0640	1:3	1 of 1
.XXX DECIMALS ±.005	DRAW	/ING APPROVALS	DATE	size C	DWG NO.		203-HJT-0643		REV A

.125 — —

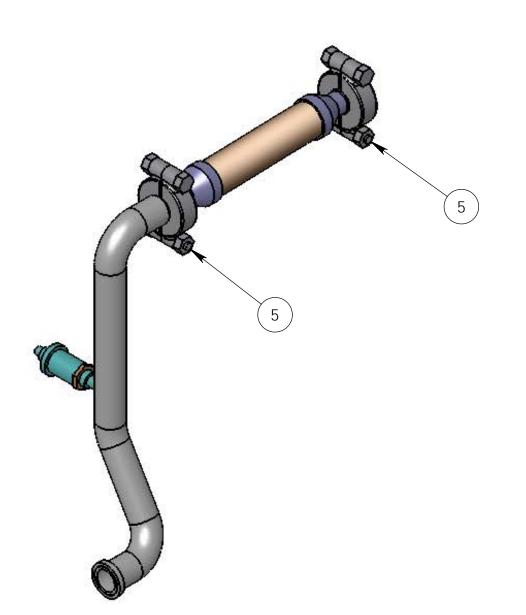




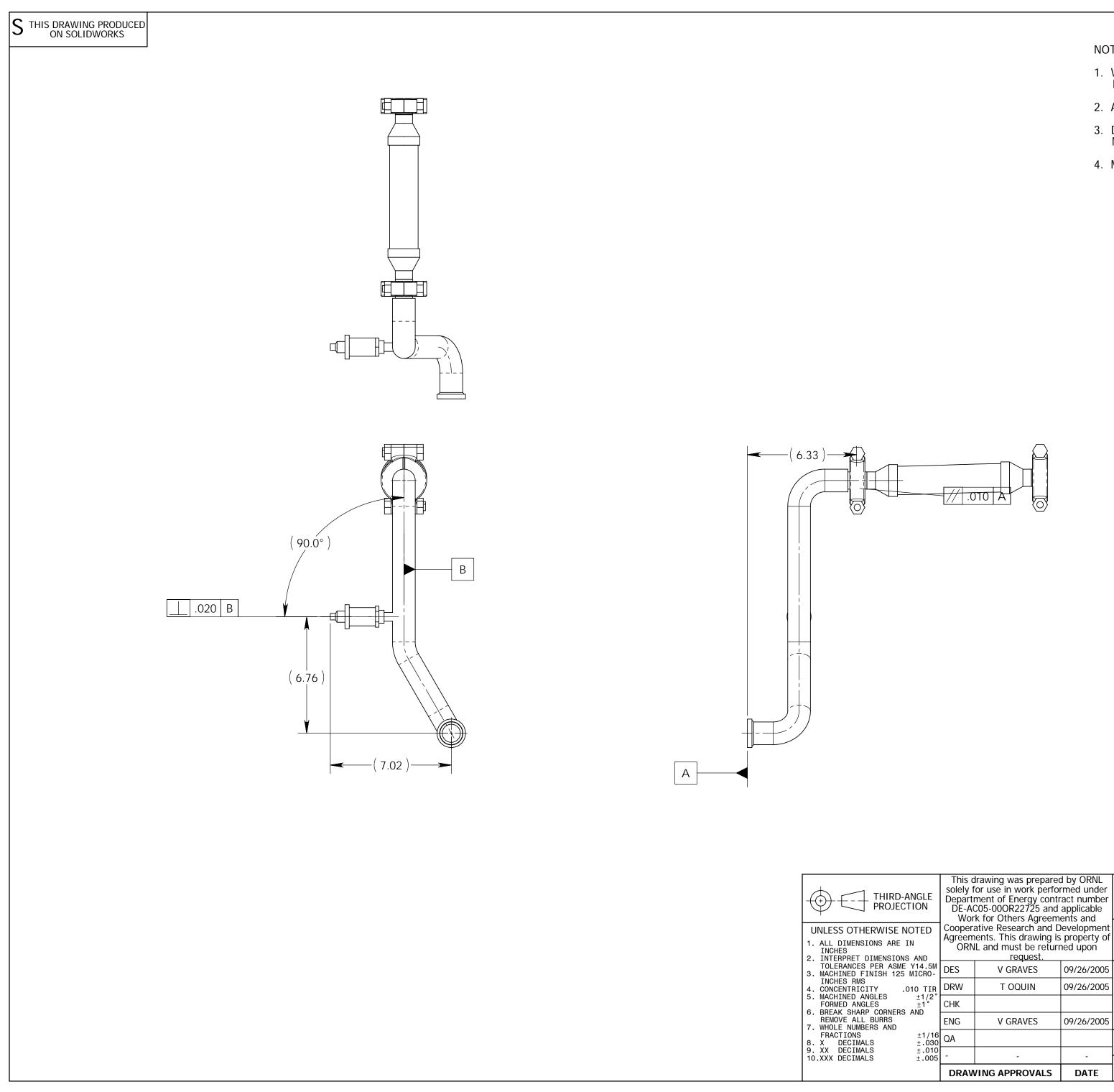
UNI 1. A I 2. I 3. M 4. C 5. M 6. B 7. W 8. X 10.X

NOTES

- 1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
- 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 3. DIMENSIONS SHOWN ARE APPROXIMATE. FIELD MEASUREMENT REQUIRED
- 4. MATERIAL CERTIFICATIONS REQUIRED
- 5. PIPE TO TUBE ADAPTER NOT SHOWN

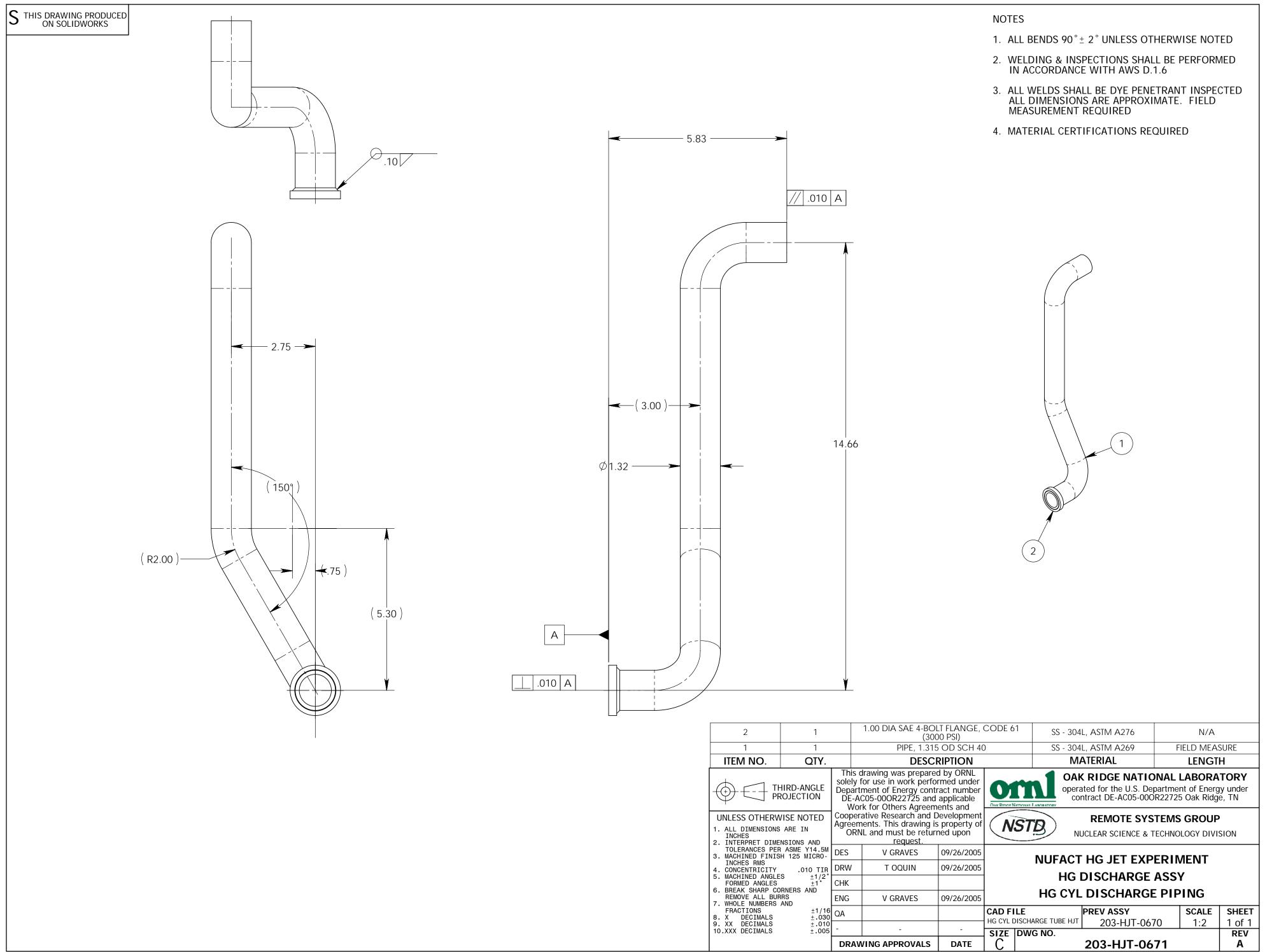


X DECI XX DECI XXX DECI	IMALS	±.030 ±.010 ±.005	-	-	-		WG NO.	203-HJT-0650	1:4	1 of 2 REV
		±.030				1 H(1)INCE			1 1.1	1 of 2
FRACTIO					CAD FILE PREV ASSY SCALE SF HG DISCHARGE ASSY HJT 203-H IT-0650 1 · 4 1					
REMOVE A	BREAK SHARP CORNERS AND REMOVE ALL BURRS WHOLE NUMBERS AND			V GRAVES	09/26/2005			DISCHARGE ASS		
FORMED A		±1/2° ±1°	СНК			1	_	IGE CYLINDER AS		
INCHES F	RMS RICITY .	010 TIR	DRW	T OQUIN	09/26/2005	1				
TOLERAN	CES PER ASME D FINISH 125	Y14.5M	DES	V GRAVES	09/26/2005					
ALL DIME INCHES	THERWISE N ENSIONS ARE	IN	Agreem	ative Research and E nents. This drawing is IL and must be return request.	property of	REMOTE SYSTEMS GROUP NUCLEAR SCIENCE & TECHNOLOGY DIVISION				
+	7		Wor	k for Others Agreem	ents and	OAK RIDGE NATH	ONAL LABORATORY			·
$ \rightarrow \in $			solely f	drawing was prepare for use in work perfo ment of Energy cont C05-00OR22725 and	rmed under act number	01	opera	K RIDGE NATIONAL ated for the U.S. Departme ntract DE-AC05-000R2272	nt of Energ	y under
ITEM	Default/ QTY.			NAME	N	IATERIAL		DESCRIPTION	D	WG
1	1	hç	g cyl dis	charge tube hjt	SS - 304	1L, ASTM A	4279	PIPE, 1" SCH 40	203-H	IJT-0671
2	1 tube1.0 1 hg cyl discharge tube hjt			ube1.0	S	S - 304L		SWAGELOK KWIK-CLAMP BUTT WELD FERRELL - 1.00 OD x .50		
3	1	þ	pressure	transducer hjt				VAC/2000PSI TRANSDUCER, 4-20MA		N/A
4	1	f	lex supp	oly line assy hjt			1" IE	ASSY, XXX FACE-FACE	1	N/A
5	2	Je	nsen Cl	amp #AJC13HP		SS - 304		JENSEN AJC13HP - 1" CLAMP		N/A
6	2	ŀ	kwik-cla	ımp gasket hjt		EPDM	KWIK	SWAGELOK JC40E -CLAMP GASKET - 1" OD	1	N/A



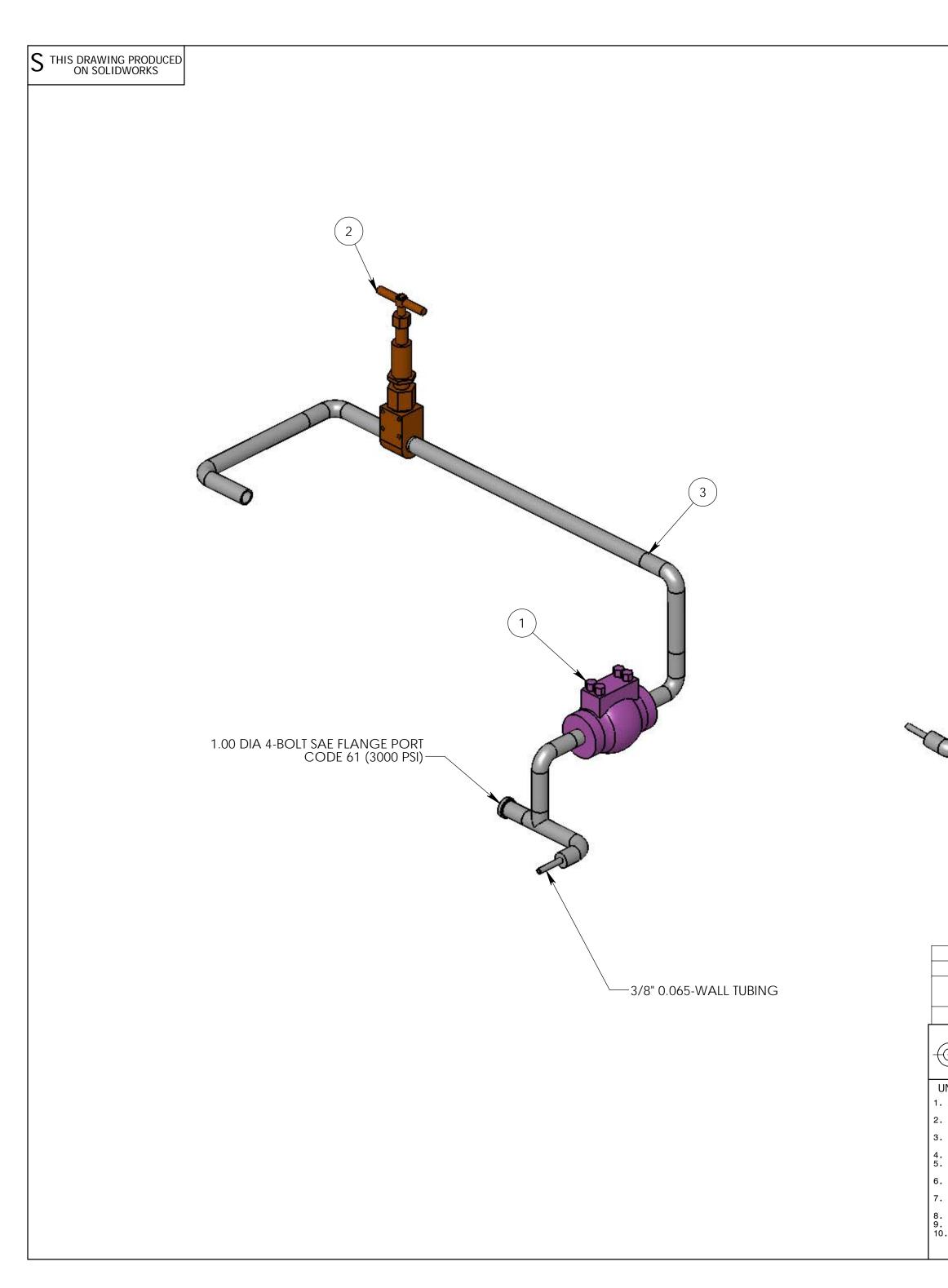
- 1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
- 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 3. DIMENSIONS SHOWN ARE APPROXIMATE. FIELD MEASUREMENT REQUIRED
- 4. MATERIAL CERTIFICATIONS REQUIRED

PROJECTION NLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M MACHINED FINISH 125 MICRO- INCHES RMS CONCENTRICITY .010 TIR	Wor Coopera Agreem ORN	C05-00OR22725 and k for Others Agreem ative Research and E ents. This drawing is IL and must be return request. V GRAVES T OQUIN	ents and Development s property of	OAK RIDGE N	STB	ated for the U.S. Departme intract DE-AC05-00OR2272 REMOTE SYSTEMS UCLEAR SCIENCE & TECHNO THG JET EXPERIN	GROUP		
MACHINED ANGLES ±1/2° FORMED ANGLES ±1° BREAK SHARP CORNERS AND REMOVE ALL BURRS	CHK	V GRAVES	09/26/2005			IGE CYLINDER AS			
WHOLE NUMBERS AND FRACTIONS±1/16XDECIMALS±.030XXDECIMALS±.010				CAD FI HG DIS	LE CHARGE ASSY HJT	PREV ASSY 203-HJT-0650	SCALE 1:4	SHEET 2 of 2	
.XXX DECIMALS ±.005		- /ING APPROVALS	- DATE	size	DWG NO.	203-HJT-0670		REV A	

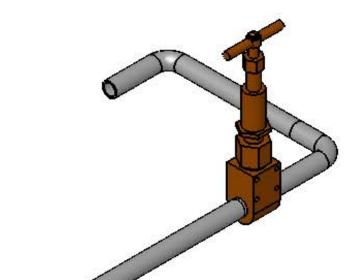


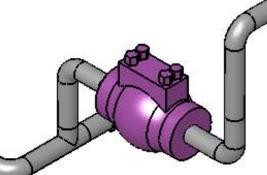
SHARP CORNERS A		-	1			<i></i>		
ALL BURRS		ENG	V GRAVES	09/26/2005	HG C	PING		
ONS CIMALS	±1/16 ±.030	QA			CAD FILE	PREV ASSY	SCALE	SHEET
CIMALS	±.010				HG CYL DISCHARGE TUBE H	^{UT} 203-HJT-0670	1:2	1 of 1
CIMALS	±.005	-	-	-	SIZE DWG NO.		_	REV
		DRAW	VING APPROVALS	DATE	C	203-HJT-0671		Α

-0671 203-HJ ОN N DWG

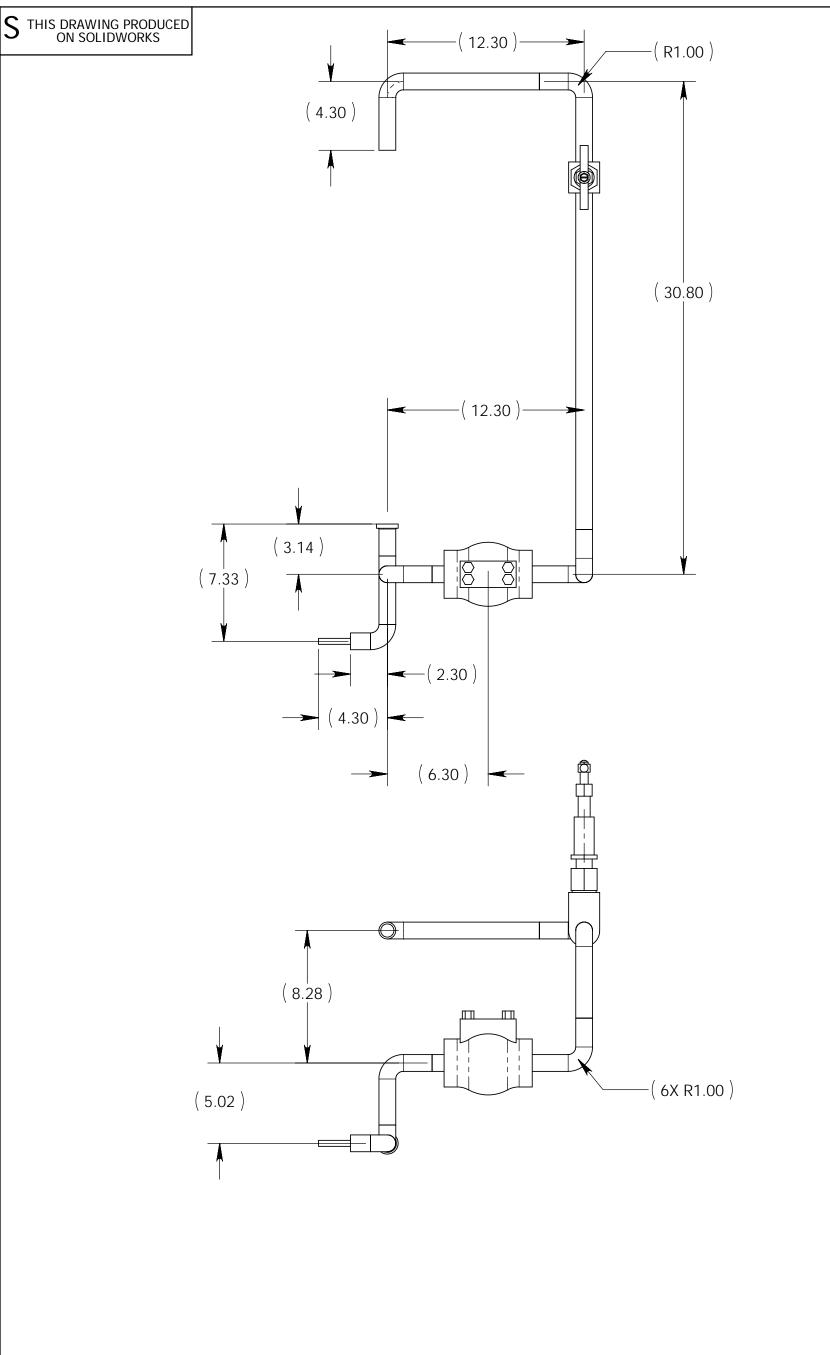


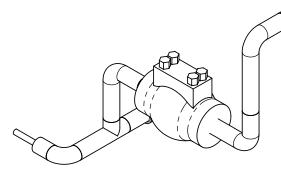
- 1. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
- 2. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 3. DIMENSIONS SHOWN ARE APPROXIMATE. FIELD MEASUREMENT REQUIRED
- 4. MATERIAL CERTIFICATIONS REQUIRED

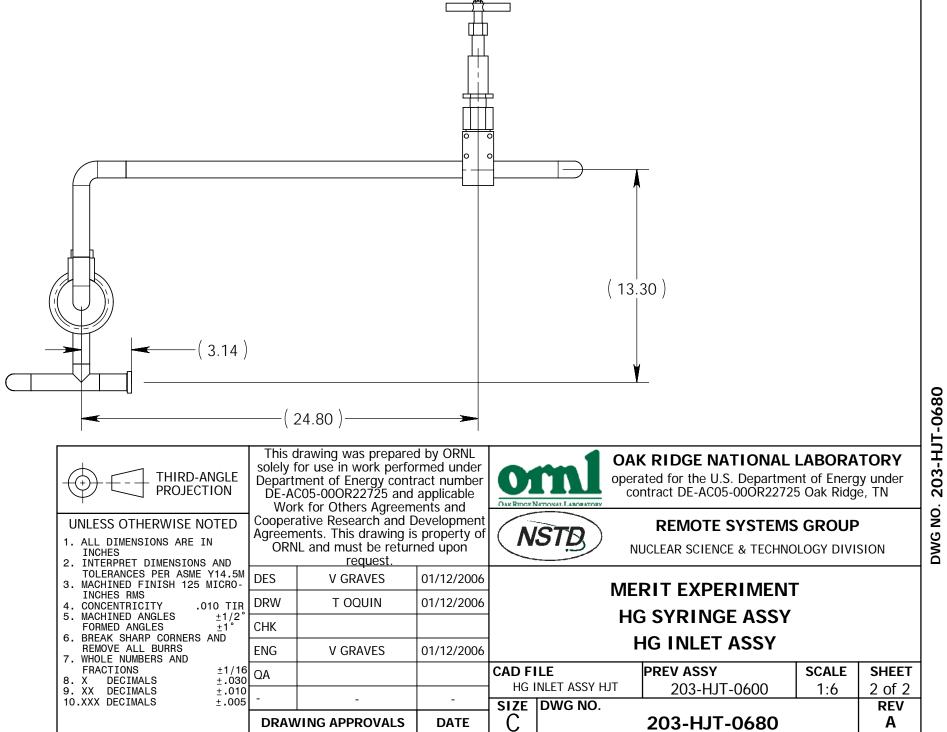


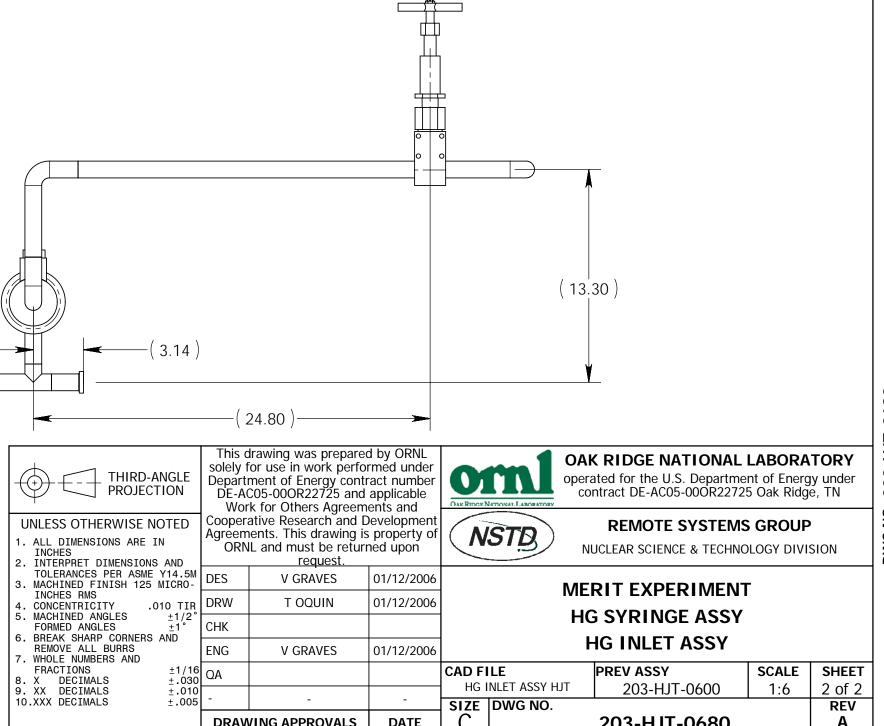


3				piping hjt	SS -	304L, ASTM	A269	PIPE	E, 1" SCH 40	N//	4	
2	1			valve hjt		SS			OK #SS-12UW-TW	N//		
1	1		checkv	alve hjt					CLASS 1500 SWING VALVE 1503HF	N//	4	
ITEM	QTY.		NA	ME		MATERIA	L	DES	SCRIPTION	DW	G	
	☐ THIRD-AN ☐ PROJECTI	NGLE ION	solely f Departi DE-A Wor	Irawing was pro or use in work ment of Energy C05-00OR2272 k for Others Ag	perfor contr 5 and preeme	med under act number applicable ents and			K RIDGE NATIONAL ated for the U.S. Departme ntract DE-AC05-000R2272			
ALL DIMEN INCHES	HERWISE NO SIONS ARE IN DIMENSIONS	l	Coopera Agreem	ative Research lents. This drav L and must be reques	and D ving is return	evelopment property of	N	STD	REMOTE SYSTEM			
MACHINED	S PER ASME Y FINISH 125 M		DES	V GRAVES	5	01/12/2006						
INCHES RM CONCENTRI	CITY .01	0 TIR	DRW	T OQUIN		01/12/2006	06					
MACHINED FORMED AN	IGLES	±1/2° ±1°	СНК						SYRINGE ASSY			
BREAK SHA REMOVE AL WHOLE NUM			ENG	V GRAVES	5	01/12/2006		ŀ	IG INLET ASSY			
FRACTIONS X DECIM) IALS	±1/16 ±.030					CAD FI		PREV ASSY	SCALE	SHEET	
XX DECIM		±.010 ±.005		_		-		NLET ASSY HJT DWG NO.	203-HJT-0600	1:5	1 of 2 REV	
			DRAW	/ING APPROV	ALS	DATE	C		203-HJT-0680		A	









- 1. ALL BENDS 90° ± 2° UNLESS OTHERWISE NOTED
- 2. WELDING & INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D.1.6
- 3. ALL WELDS SHALL BE DYE PENETRANT INSPECTED
- 4. DIMENSIONS SHOWN ARE APPROXIMATE. FIELD MEASUREMENT REQUIRED
- 5. MATERIAL CERTIFICATIONS REQUIRED