DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGI	RAPH CLASSIFICAT	TON
	DEPARTMENT OF HE	ETY AND HEALTH ACT OF	VICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	Coal Workers' F National Institute for 1095 Willow ed. Morga	SE CONTROL & PREVENT Health Surveillance Program In Occupational Safety and Health Wale Road, MS LB208 Intown, WV 26505 X: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
EXAMINEE'S Name (Last, First MI)			TYPE OF READING
20 - NIOSH Syllabus Answer	Key		A B F
			his form. Classify all appearances described in the ILO hs. Use symbols and record comments as appropriate.
1. IMAGE QUALITY Overexp	posed (dark) Imprope	er position Underinflation	n Scapula Overlay
(If not Grade 1, mark all boxes that apply) Underest Under Underest Underest Underest Underest Under Under Underest Under Under Underest Under Und	exposed (light) Poor con	ntrast Mottle ocessing Excessive Ed Enhancement	~
2A. ANY CLASSIFIABLE PARENCE	IYMAL ABNORMALITIES	9	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PSP S TUPE Q t TUPE Q t	b. ZONES R L UPPER MIDDLE LOWER	c. PROFUSION 0/- 0/0 0/1 1/0 1/1 1/2 2/2 2/3 3/2 3/3 3/+	SIZE O A CTIES Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	Y	ES Complete Sections NO Proceed to Section 4A
	R L in profile Up to 1/4 1/4 to 1/2 > 1/2 R L O R		Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBL	TERATION R L	Proceed to Section 3D NO Pro	oceed to Section 4A
Site Chest wall In profile Face on O R L	(mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combine in profile and face on) Up to 1/4 of lateral chest w 1/4 to 1/2 of lateral chest v > 1/2 of lateral chest v OR OL 1 2 3 1 2	(3mm minimum width required) vall = 1 vall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	5?	YES Complete Section	ns 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSI	H A or B Reader)	READER'S INITIALS	DATE OF READING (mm-dd-yyyy) 0 3 - 0 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, F)	IRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ei em es	ir ni i	no id in ki me pa po pi px ra rp to
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\	CHEST RADIOGRAP	H CLASSIFICATION	
	DEPARTMENT OF HEALT	AND HEALTH ACT OF 1977 H AND HUMAN SERVICES	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are re	National Institute for Occu 1095 Willowdale Quired. Morgantow	n Surveillance Program upational Safety and Health Road, MS LB208 n, WV 26505 4-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	ГАА. 304	1-263-0038	
21 - NIOSH Syllabus Ans	wer Key		TYPE OF READING A B F
			m. Classify all appearances described in the ILO e symbols and record comments as appropriate.
(If not Grade 1, mark all	rerexposed (dark) Improper posuderexposed (light) Poor contrast procession in the pr	Mottle	Other (please specify) Rotation LAO
2A. ANY CLASSIFIABLE PARI	ENCHYMAL ABNORMALITIES?	YES	Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P Q t q T u r u	b. ZONES R L UPPER	PROFUSION 2C. LA	ARGE OPACITIES A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEU	RAL ABNORMALITIES?	YES	Complete Sections 3B, 3C NO Proceed to Section 4A
3B. PLEURAL PLAQUES (machine in the content of the	in profile and fe Up to 1/4 of lat 1/4 to 1/2 of lat	cace on) (steral chest wall = 1	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O a C a C a C C C C C C C C
3C. COSTOPHRENIC ANGLE	ORLITERATION ID III I	oceed to ction 3D NO Proceed to	Section 4A
3D. DIFFUSE PLEURAL THIC Site Chest wall In profile Face on R L	(mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 OR OL 1 2 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR OL abc c
4A. ANY OTHER ABNORMAL	TIES?	YES Complete Sections 4B-E a	and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a			DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, FIRST MI	IDDLE) STATE ZIP CODE

DICAR CONTENTS OF	/T . T 3 (T)	
EXAMINEE'S Name ((Last. First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	no id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased		Lung Parenchymal Abnormalities ☐ Azygos lobe ☑ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐ Bony chest cage abnormality ☐ Fracture, healed (non-rib) ☐ Fracture, not healed (non-rib) ☐ Scoliosis ☐ Vertebral column abnormality		☑ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES X	NO
4D.	OTHER COMMENTS		
	3 cm density behind R heart, possible mass.		

TYPE OF READING A B F Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the II International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate 1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay	
Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058 EXAMINEE'S Name (Last, First MI) 22 - NIOSH Syllabus Answer Key Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the II International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate 1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number TYPE OF READING A B F Scapula Overlay Scapula Overlay	
EXAMINEE'S Name (Last, First MI) 22 - NIOSH Syllabus Answer Key Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the II International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate 1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay	٦
22 - NIOSH Syllabus Answer Key Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the II International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate 1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay	╛
International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate 1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay	
Underexposed (light) Other (please specify) (If not Grade 1, mark all boyes that apply) Artifacts Poor processing Excessive Edge Rotation LAO	
Enhancement Enhancement	
2A. ANY CLASSIFIABLE PARENCHYMAL ABNORMALITIES? YES Complete Sections 2B and 2C Proceed Section	
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P N UPPER ND	
3A. ANY CLASSIFIABLE PLEURAL ABNORMALITIES? YES Complete Sections 3B, 3C Proceed Section 4	
3B. PLEURAL PLAQUES (mark site, calcification, extent, and width) Chest wall In profile In profile Face on Diaphragm R L Other site(s) R L R L R L R L R L R L R L R L R L R L R L R L R L R L R L R L R L R L R R	
3C. COSTOPHRENIC ANGLE OBLITERATION Proceed to Section 3D NO Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENING (mark site, calcification, extent, and width) Site Chest wall In profile R L Face on R L R L R L R L R L R L R L R	
4A. ANY OTHER ABNORMALITIES? YES Complete Sections 4B-E and 5. NO Complete Section 5.	
5. NIOSH Reader ID READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4	
SIGNATURE PRINTED NAME (LAST, FIRST MIDDLE) STREET ADDRESS CITY STATE ZIP CODE	

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B. OTHER SYMBOLS (C	OBLIGATORY)
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a	a at ax bu ca cg cn co cp cv di ef em es	fr hi l	no id ih kl me pa pb pi px ra rp tb
		$\boxtimes \Box$	
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CI	LASSIFICATION	
	FEDERAL MINE SAFETY AND H DEPARTMENT OF HEALTH ANI CENTERS FOR DISEASE CONTR	HUMAN SERVICES	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	Coal Workers' Health Survei National Institute for Occupationa 1095 Willowdale Road, l	llance Program Il Safety and Health MS LB208 6505	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)		L	TYPE OF READING
23_Lower - NIOSH Syllabus A			$A \square B \bigotimes F \square$
Note: Please record your interpretation of a sing International Classification of Radiographs of I			
	sed (dark) Improper position	Underinflation	Scapula Overlay
(If not Grade 1, mark all	osed (light) Poor contrast	Mottle Excessive Edge	Other (please specify) Review both images for this
boxes that apply) Artifacts 2A. ANY CLASSIFIABLE PARENCH	Poor processing YMAL ABNORMALITIES?	Enhancement	Complete Sections NO Proceed to
ZII. IIII ODIIGGII IIDDZ I IIIIZI (OII		YES	2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t r u r u	b. ZONES R L UPPER	ON 2C. LAR 0/1 1/2 SIZE 2/3 3/+	O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES X	Complete Sections NO Proceed to Section 4A
	alcification, extent, and width) Extent (chest wall; comb in profile and face on) Up to 1/4 of lateral ches L	t wall = 1 3 to t wall = 2 5 to	th (in profile only) m minimum width required) to 5 mm = a 10 mm = b 10 mm = c R D D D D D D D D D D D D
3C. COSTOPHRENIC ANGLE OBLIT	Proceed to Section 3D	NO Proceed to Sec	ction 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile Face on O L L	(mark site, catcification, extent, and width) in pro Up t Calcification 1/4	t (chest wall; combined for offile and face on) o 1/4 of lateral chest wall = 1 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 L 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O a b a b c
4A. ANY OTHER ABNORMALITIES	YES	Complete Sections 4B-E and	5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH			TE OF READING (mm-dd-yyyy) 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINT	ED NAME (LAST, FIRST MIDI	OLE) STATE ZIP CODE

DAZAR ZINTERIO	3. T	/T .	ъ.	1 (T)
EXAMINEE'S	Name	(Last.	First	MH)

23_Lower - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY)
+1) .		13 1 WILDLY	43 (()))	/IX I/A I (/IX I)

	aa	at	ax	bu	ca	cg	cn	co	сp	cv	aı	eī	em	es	Ir	nı	no	10	ın	KI	. 1	me	pa	рb	рı	px	ra	rp)	το		
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at		signif	ficant	apica	l pleu	ral th	ickeni	ing							ho)	1	oney	comb	lun	g											
ax		coale	scenc	e of s	mall o	pacit	ies - v	vith n	nargi	ns of	the si	nall c	pacit	ies	id		j	ll-def	fined o	diapl	hrag	m bo	order	- sho	ould	be re	corde	ed on	ly i	f mo	re tha	n
		remai	ining	visibl	e, wh	ereas	a larg	e opa	city o	lemoi	nstrat	es a					(one-th	nird of	f one	e hei	midia	aphra	agm i	s aff	ected			•			
		homo	gene	ous o	oaque	appe	arance	e - ma	y be	recor	ded e	ither	in the	,	ih		j	ll-def	fined l	heart	t boı	rder -	- sho	uld b	e rec	corde	d onl	y if tl	he 1	engt	h of th	e heart
		prese	nce o	r in th	e abs	ence (of larg	ge opa	cities	S							1	orde	r affe	cted,	, wh	ethei	on t	the ri	ght o	or on	the le	ft sic	le, i	is mo	re tha	n
bu		bulla	(e)					_									(one-th	nird of	f the	len	gth o	f the	left	heart	bord	ler					
ca		cance	r, tho	racic	malig	nanci	ies exc	cludir	ng me	sothe	liom	a			kl		5	septal	(Kerl	ley)	line	s										
cg		calcif	ied n	on-pn	eumo	conio	tic no	dules	(e.g.	gran	uloma	a) or	nodes		m	e	1	nesot	thelio	ma												
cn		calcif	icatio	n in s	mall	pneur	nocon	iotic	opaci	ties					pa	ι	1	olate a	atelec	tasis												
co		abnor	malit	y of c	ardia	c size	or sha	ape							pł)	1	aren	chyma	al ba	ınds	- sig	nific	ant p	aren	chyn	nal fil	orotic	sta	ands	in con	tinuity
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em		emph	ysem	a											rp		1	heun	natoid	pne	umo	oconi	osis									
es		eggsh	nell ca	alcific	ation	of hil	ar or 1	nedia	stina	l lym	ph no	des			tb		1	uberc	culosis	S												
fr		fractu	ired r	ib(s) (acute	or he	aled)																									

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities
	Hiatal hernia		☐ Azygos lobe ☐ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☑ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	□Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D.	OTHER COMMENTS		

DAT	ΕO	F RA	DIOG	RA	.PH (mP -d0	;)	CHE	ST F	RAD	IOGI	RAPH	CLA	SSI	IFICA	TIO	N								
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						digits a		quired		C	oal W	orkers' l itute fo 5 Willo Morga	Health S	urveillan ational S oad, MS WV 265	nce Pr Safety S LB2 505	rogram and He			CDO	C/NIOS	0920-0 SH (M) Number	2.8				7
EXA	MIN	EE'S	Nam	e (I	Last,	First I	MI)											L		OF D	E A DID		L	Ш		ل
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	1.	IM	AGE (QU/	ALIT	Y \sum_	Ov	erexpos	sed (dar	k)	X	Improp	er positio	on	Un	nderinfla	tion		\boxtimes	Scapul	a Overla	ay				
	<u> </u>	fnot G	rade 1,	mar	U/R		Un	derexp	osed (lig	ght)		Poor co	ntrast		Mo	ottle			Othe	· ·	e specif	• /				
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2	2В.	SM	ALL		ACIT					b. Z0	ONES		c. PR	OFUSION			2C.	LAR	GE OI	PACIT	IES					
		PI	RIMARY S d t			CONDA	ry]]		UPPER MIDDLE LOWER	R	L] []] []		0/- 1/0 2/1 3/2	0/0 0/2 1/1 1/2 2/2 2/2 3/3 3/4	2 3 +		\$	SIZE	O	A	В			roceed t		
3	BA.	AN	Y CL	ASS	SIFLA	ABLE I	PLEU	RAL A	BNOR	MALI	TIES	?				•	YES	X		mplete S	ections	N	0		roceed	
	3В.	Chest I Diap		le [O [X [R R I	(mar.		R X R L	on, exter		Extent (c in profile Up to 1/4 1/4 to 1/	hest wall; e and face 4 of latera 2 of latera 2 of latera	<i>on)</i> l chest w al chest w	all = 1 all = 2	2		(3mr 3 to 5 to		= a = b	y) th require	ed)				
3	BC.	CO	STOI	PHF	RENI	C ANC	GLE (BLIT	ERATI	ON		XX	Proce Section		NO		Proceed	l to Sec	tion 4A							
3	BD.	Ches	FFUSI t wall In profi	le [0 0	Site	HICK	KENIN		k site, cont, and w	vidth)	tion,	0	in profile Up to 1 1/4 to 1	e and f /4 of la !/2 of l	wall; comb face on) lateral che lateral che lateral che	st wall = st wall =	= 1 = 2 = 3	(3: 3 5:t		n = b		equire a	L	С	
4	A.	AN	Y OT	HE	R AF	BNORN	IALI	TIES?					Y	ES X	Con	mplete Sec	tions 4B	-E and	5.	NO		Com	plete	Section	n 5.	
5	(Le	I	OSH I)	S	Н	not a l	NIOSH A	A or B R	eader)		7	REA	DER'S	INIT	FIALS					5 -				2 4	
		iNATU										_	P	RINTED	NAM	ИЕ (LAST	, FIRST						Ι			
I	ST	REET	ADDR	ESS							CIT	Y						S	ГАТЕ		ZI	P CC	DDE			

EXC. MARKETIC	3 T	/T .		-\
EXAMINEE'S	Name	(Last.	First MI	l)

23_Upper - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY)
+1) .		13 1 WILDLY	43 (()))	/IX I/A I (/IX I)

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	aı	eī	em	es	ır	nı	no) 1d	ın	KI	me	pa	рb	рı	px	ra	rp	tb	
												X									X								
aa		athere	osclei	otic a	orta										hi			enlarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympł	node	es
at		signif	ficant	apica	ıl pleu	ıral th	icken	ing							ho)		honey	comb	lung							-		
ax		coale	scenc	e of s	mall o	opacit	ties - v	with	margi	ns of	the s	mall	opaci	ties	id			ill-defi	ned d	iaphra	agm t	ordei	- sho	ould b	e rec	orded	only	if mo	re than
		remai	ining	visibl	le, wh	ereas	a larg	e op	acity	demo	nstrat	tes a	•					one-th	ird of	one h	emid	iaphra	agm i	s affe	cted		•		
			_				_	-	ay be				in th	e	ih											only	if the	lengt	h of the heart
		prese	nce o	r in th	ie abs	ence o	of larg	ge or	oacitie	S																		_	ore than
bu		bulla	(e)				`											one-th					,	_					
ca		cance	er, the	racic	malig	nanci	ies ex	clud	ing m	esothe	eliom	a			kl			septal			_								
cg		calcif			_				_				node	s	m	e		mesoth		•									
cn		calcif	icatio	on in s	small	pneur	nocor	iotio	c opac	ities					pa	ı		plate a	telecta	asis									
co		abnor	malit	y of c	cardia	c size	or sh	ape	•						pł			parenc	hyma	l band	ls - si	gnific	ant p	arenc	hyma	al fibr	otic s	ands	in continuity
ср		cor pi	ulmoi	nale				•							•			with th	ie plei	ıra		_	•		•				•
cv		cavity	y												pi			pleural	•		g of ar	inte	rlobar	fissu	ire				
di		mark	ed dis	stortio	on of a	ın intı	athor	acic	struct	ure					py			pneum	othor	ax	•								
ef		pleura	al eff	usion											ra			rounde	ed atel	ectasi	is								
em		emph	ysem	a											rp			rheum	atoid 1	pneur	nocor	niosis							
es		eggsh	iell ca	alcific	ation	of hil	ar or	med	iastina	ıl lym	ph no	odes			tb			tuberci											
fr		fractu								•																			

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders Bronchovascular markings, heavy or increased		☐ Infiltrate ☐ Nodule, nodular lesion
	☐ Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities
	Bony chest cage abnormality Fracture, healed (non-rib)		☐ Foreign body ☑ Post-surgical changes/sternal wire ☐ Cyst
	☐Fracture, not healed (non-rib) ☐Scoliosis		Vascular Disorders ☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D.	OTHER COMMENTS		

DA	TE O	F RAD	DIOGR	APH ((mP -dG	(////	C	HEST	Γ RAI	OIOG	RAPH	CLA	SSIF	'ICATI	ION								
			\prod	$oxed{T}$		$oxed{\Box}$	D	DEPART	TMENT	OF H	EALTH A	AND F	HUMA	N SERV	ICES								
EX	AMIN	NEE'S	Social	Securi	ity Numl	ber	· (ENTER			ASE CON				ION		OMB N						
								Nat	tional Ins	stitute fo	' Health Su or Occupat	tional S	Safety an	nd Health			CDC/NI		` ′				
Ful	l SSN	is opt	ional,	last 4	digits ar	e requ	ıired.	_	10	Morg	owdale Ro gantown, V	VV 265	505	i		FA	CILITY	Y Nu	mber	- Unit	Numb	er	1
EX.	AMIN	NEE'S	Name	(Last,	First M	(I)				FA	AX: 304-28	35-6058	3							<u> </u>			
24	1 - N	11OS	H S	yllab	ous Ai	nsw	er Ke	∍y								TY A	PE OF	F REA		3]			
											n "x" in the ed by the II												
	1.	IMA	GE Q	UALIT	ГҮ	Over	exposed	(dark)		Improp	per position	n	Under	erinflation			Sca	ipula (Overla	y			
	\geq	2	3	U/R		Unde	erexpose	ed (light)	, [Poor c	contrast		Mottl	le		О	ther (pl	lease	specif	y)			
		f not Gra	,	ark all		Artifa	acts			Poor p	processing			essive Edg	ge								
	2A.	ANY	CLA	SSIFIA	ABLE PA	AREN	СНҮМ	AL ABN	NORMA	LITIE	S?			Y	ES	\leq	Complete 2B and 2		tions	NO		Proceed Section	
	2B.	SMA		PACIT HAPE/SIZ					b. ZONES		c. PRO	OFUSION		2C.	. LA	RGE	OPAC	CITIE	ES				
		PRI	IMARY		ECONDARY	Ĩ.	TID	~~~ [R L	7 1	1/0	0/0 0/1	<u></u>			_	 _	٦,	-JI	_			
		ιΔ. Γh	S) S			PER DDLE		<u> </u> 	2/1	2/2 \[2]'	<u>2</u>]		SIZE	C) A		C		Proceed Section		
			u u	[<u>]</u>	1 L 7 u			WER		<u>√</u> 7	3/2	3/3 3/-	<u>1</u> +]										
-																							
	3A.	A11.	CLA	3311-12	ADLE 1.	LEUK	AL AL	NORM	*LH HE	<u> </u>				YE	ES _		Complete 3B, 3C	ete sec	tions	NO	1 X I	Proceed Section 4	
	3B.	PLE Chest v		L PLA(QUES Site	(mark s	site, calci Calcific		extent, and	Extent ((chest wall; c		ed for	1			n profile						
			wan profile	O	R	1 [OR	. L			ile and face of 1/4 of lateral		all = 1		3	3 to 5 n	inimum v nm = a	width 1	require	1)			
		Fa	ace on	O	R L] [O R	L			1/2 of lateral 1/2 of lateral						nm = b $nm = c$						
		Diaph	ragm	O	R] [O R	L		\Box	R	O	L		(O F			O	L	_		
		Other	site(s)	O	R] [O R	L		1	2 3	1	2	3	í	a l	С] [a	b	;		
	3C.	COS	торі	IRENI	IC ANGI	LE OE	3LITEF	RATION	1	R	Proceed Section		NO [Proc	ceed to S	Section	4A						
	3D.	DIF	FUSE	PLEU	RAL TH	<u>—</u> ПСКЕ 	ENING		te, calcific and width)		i	in profile	e and face	l; combined e on) ral chest wa	-		(3mm i			<i>ly)</i> th requi	ired)		
		Chest	wall		Site			Calci	ification			1/4 to 1	1/2 of late	eral chest wa eral chest wa	all = 2		5 to 10		= b				
			n profile	O	R L]		O	R L		O	R	./2 01 1a10	O L	an – 5		0	R	- C	O	L		
_		Fa	ace on	O	R L]		0	R L		1	2	3	1 2	3		a	b	c	a	b	c	
	4A.	ANY	ОТН	ER AF	BNORM	ALIT	IES?				YE	is X	Comple	lete Sections	s 4B-E an	nd 5.	N	10		Complet	te Sectio	on 5.	
	5.	NIO	SH Re	eader I	D						REAL	DER'S	INITIA	LS	D	ATE	OF RE	ADIN	NG (m	m-dd-	уууу)		
	N	<u> </u>	0	S	Н										^	1 C) –	1	5 -	2	0 2	2 4	
	(Lea	ave ID N	Number	blank if	f you are n	ot a NI	OSH A o	r B Reade	er)	_													
							_																
	SIG	GNATUI	RE								PR	RINTED	NAME ((LAST, FIF	RST MII	DDLE)	<u> </u>						
	ST	REET A	DDRES	SS					CI	ГҮ						STA	TE L		ZII	CODE	3	_	

EXAMPLE DIG M	(T (T' () (T)
EXAMINEE'S Name	(Last, First MII)

	4B.	OTHER SYMBOLS	(OBLIGATORY)
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aa	at ax bu ca cg cn co cp cv di ef em es f	r hi h	o id ih kl me pa pb pi px ra rp tb
\geq			
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐ Azygos lobe
	☐ Hiatal hernia		☑ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

There is also a nodule or r-size opacity behind the heart.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and F 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
25 - NIOSH Syllabus Answer	Key	TYPE OF READING A B F F
		s on this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
	Enhance	Other (please specify) ve Edge
ZA. ANI CEASSIFIADEE I ARENCH	TMAL ADNORMALITIES.	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S T U T U	b. ZONES R L UPPER	SIZE O B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R O L R L Q S S S S S S S S S S S S S S S S S S	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) hest wall = 1 chest wall = 2 (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete S	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAS	ST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY))

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
Airway Disorders	☐ Infiltrate
☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion
☐ Hyperinflation	Miscellaneous Abnormalities
Bony Abnormalities	☐ Foreign body
☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire
☐Fracture, healed (non-rib)	□Cyst
Fracture, not healed (non-rib)	Vascular Disorders
□ Scoliosis (☐ Aorta, anomaly of
☐ Vertebral column abnormality	☐ Vascular abnormality
	Date Physician or Worker notified? (mm-dd-yyyy)
4E. Should worker see personal physician because of fin	ndings? YES NO
4D. OTHER COMMENTS	

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION						
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S							
CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058 KAMINEE'S Name (Last, First MI) CENTERS FOR DISEASE CONTROL & PREVENTION OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number								
26 - NIOSH Syllabus Answer	Kev	TYPE OF READING						
Note: Please record your interpretation of a sin	gle radiograph by placing an "x" in the appropriate boxe	A B F F cs on this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.						
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhance	Other (please specify) ve Edge ement						
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A						
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PSP SP S Q t Q t T U T U	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A B C Proceed to Section 3A						
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A						
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C						
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A						
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b						
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.						
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4						
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	STATE ZIP CODE						

4T)	OTHER	CITATO	C (ODI	TOATOBAN	
4B.	OTHER	SYMBO	LS (OBI	LIGATORY)	

	aa	at	ax	bu	ca	cg	cn	co c	o cv	di	ef	em	es	fr	hi	ho	id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
aa		ather	osclei	rotic a	orta									hi		er	ılarge	ement	of no	n-cal	cified	hilar	or me	ediast	inal I	lymph	nodes	S
at		signif	ficant	apica	ıl pleu	ral th	ickeni	ing						ho		ho	oneyo	omb l	lung									
ax		coale	scenc	e of s	mall o	pacit	ies - v	vith ma	gins o	the sr	nall o	opacit	ies	id		ill	l-defi	ned di	iaphra	ıgm b	order	- sho	uld b	e reco	orded	only	if mor	e than
		remai	ining	visibl	le, wh	ereas	a larg	e opacit	y demo	onstrat	es a					OI	ne-thi	rd of	one h	emidi	aphra	igm is	affe	cted				
		homo	gene	ous o	paque	appe	arance	e - may	be reco	rded e	ither	in the		ih		ill	l-defi	ned he	eart b	order	- sho	uld be	e reco	rded	only	if the	length	of the heart
		prese	nce o	r in th	ne abs	ence o	of larg	ge opaci	ties							bo	order	affect	ed, w	hethe	r on t	he rig	tht or	on th	e left	side,	is mor	re than
bu		bulla	(e)													OI	ne-thi	rd of	the le	ngth o	of the	left h	eart b	orde	r			
ca		cance	er, the	oracic	malig	nanci	ies exc	cluding	mesoth	elioma	a			kl		se	eptal ((Kerle	y) lin	es								
cg		calcif	fied n	on-pn	eumo	conio	tic no	dules (e	.g. gra	nuloma	a) or	nodes		me	e	m	esoth	eliom	ıa									
cn		calcif	ficatio	on in s	small	pneur	nocon	iotic op	acities					pa		pl	ate at	telecta	asis									
co		abnor	rmalit	ty of c	cardia	c size	or sha	ape						pb		pa	arencl	hymal	band	s - si	gnific	ant pa	arencl	hyma	l fibr	otic st	ands i	n continuity
ср		cor p	ulmoi	nale												W	ith th	e pleu	ıra									
cv		cavity	y											pi		pl	eural	thick	ening	of an	inter	lobar	fissu	re				
di		mark	ed dis	stortic	on of a	ın intr	athora	acic stru	cture					px		pı	neum	othora	ax									
ef		pleur	al eff	usion										ra		rc	unde	d atel	ectasi	s								
em		emph	ysem	ıa										rp		rh	euma	atoid p	neun	nocon	iosis							
es		eggsh	nell ca	alcific	ation	of hil	ar or 1	nediast	nal lyr	nph no	des			tb		tu	bercu	ılosis										
fr		fractu	ıred r	ib(s) ((acute	or he	aled)																					

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia		Lung Parenchymal Abnormalities Azygos lobe
	Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation		☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities
	Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Scoliosis Vertebral column abnormality		☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES	Date Physician or Worker notified? (mm-dd-yyyy)

4D. OTHER COMMENTS

Normal intercostal muscle shadows are well illustrated in this radiograph and should not be confused with pleural plaque.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	TION
	FEDERAL MINE SAFETY AND HEALTH ACT OF DEPARTMENT OF HEALTH AND HUMAN SERV	VICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVENT Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
27 - NIOSH Syllabus Answer	Key	TYPE OF READING
	gle radiograph by placing an "x" in the appropriate boxes on t Pneumoconiosis or Illustrated by the ILO Standard Radiograp	
	Enhancement	Other (please specify)
ZA. ANI CLASSIFIABLE I ARENCII	TMAL ABIORNALITIES.	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t	b. ZONES R L UPPER	SIZE O A Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L O R O L R L 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 3 1 2 3 3 3 3 3 3 3 3 3	Width (in profile only) (3 mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	FERATION R L Proceed to Section 3D NO Proceed to Section 3D	oceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile Face on O R L	Calcification ORL RL Extent (chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on) Up to 1/4 of lateral chest wall; combine in profile and face on the pro	(3mm minimum width required) vall = 1 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Section	ns 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 9 - 2 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, F)	STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER SYMBOLS	OBLIGATORY)
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	aa	at	ax	bu	ca	cg	cn	co	ср	cv	aı	eī	em	es	Ir	nı	no	10	ın	KI	m	e p	a p	b	рı	px	ra	rp	το	
			X								X					X]
aa		ather	oscler	otic a	orta										h	i	en	large	ement	of n	on-c	alcif	ied hi	lar	or m	edias	tinal	lymp	h noc	des
at		signi	ficant	apica	al pleu	ıral th	icken	ing							h	O	ho	neyo	comb	lung										
ax		coale	scenc	e of s	small (opacit	ies - v	vith n	nargi	ns of	the sn	nall o	pacit	ies	ic	l	ill	-defi	ned d	iaphı	agm	o boro	der - :	sho	uld b	e rec	ordeo	lonly	if m	ore than
		rema	ining	visibl	le, wh	ereas	a larg	e opa	city o	lemo	nstrate	es a	_				on	e-thi	ird of	one l	hemi	idiap	hragr	n is	affe	cted		·		
		homo	ogeneo	ous o	paque	appe	arance	e - ma	y be	recor	ded ei	ther	in the	•	ih	1	ill	-defi	ned h	eart l	ord	er - s	hould	l be	reco	orded	only	if the	leng	gth of the heart
			nce of																								-			nore than
bu		bulla	(e)														on	e-thi	ird of	the l	engt	h of t	the le	ft h	eart	borde	er			
ca		cance	er, tho	racic	malig	gnanci	ies ex	cludir	ng me	sothe	elioma	ı			k	l	se	ptal ((Kerle	y) li	nes									
cg		calcit	fied no	on-pn	eumo	conic	tic no	dules	(e.g.	gran	uloma	or	nodes		m	ie	me	esoth	elion	na										
cn			ficatio												p	a	pla	ate a	telecta	asis										
co		abno	rmalit	y of c	cardia	c size	or sha	ape							p	b	pa	renc	hyma	l ban	ds -	signi	fican	t pa	renc	hyma	ıl fibi	otic s	tand	s in continuity
ср		cor p	ulmor	ale													wi	ith th	e plei	ıra										
cv		cavit	y												p:	i	ple	eural	thick	enin	g of	an in	terlo	oar	fissu	ire				
di		mark	ed dis	tortic	on of a	an inti	athora	acic s	tructi	ıre					p:	X	pn	eum	othor	ax										
ef		pleur	al effu	ision											ra	ı	ro	unde	d atel	ectas	sis									
em		emph	ysem	a											r)	rh	euma	atoid 1	oneu	moc	onios	sis							
es		eggsl	nell ca	lcific	cation	of hil	ar or i	media	ıstina	l lym	ph no	des			tb		tul	bercı	ulosis											
fr		fracti	ıred ri	b(s)	(acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	□Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058
28 - NIOSH Syllabus Answer	TYPE OF READING A B F F
	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO reumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.
	sed (dark) Improper position Underinflation Scapula Overlay losed (light) Poor contrast Mottle Other (please specify) Poor processing Excessive Edge Enhancement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s t q t r u X u	b. ZONES R L UPPER
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO Proceed to Section 4A
	R L L C C C C C C C
3C. COSTOPHRENIC ANGLE OBLI	Section 3D No Section 3D
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 S to 10 mm = 6 S to 10 mm = c O R L 1 2 3 1 2 3 a b c a b c C a b c C a b c C a b c C a b c C a b c C a b c c C a b c c C a b c c a b c c C a b c c a b c c a b c c a b c c a b c c a b c c c a b c c c a c c c c
4A. ANY OTHER ABNORMALITIES	YES Complete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

7D. OTHER STRIDGES (ODLIGATOR)	YMBOLS (OBLIGATORY)	OTHER SYMBOLS	4B.
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a	a at ax bu ca cg cn co cp cv di ef em es	ir hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders ☐ Bronchovascular markings, heavy or increased		☐ Infiltrate ☐ Nodule, nodular lesion
	☐ Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities Foreign body
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)		☐ Post-surgical changes/sternal wire ☐ Cyst
	□ Fracture, not healed (non-rib) □ Scoliosis		Vascular Disorders ☐ Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRA	PH CLASSIFICATION	N
	DEPARTMENT OF HEAL	AND HEALTH ACT OF 197 TH AND HUMAN SERVICE	ES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	Coal Workers' Hea National Institute for Oc 1095 Willowda d. Morganto	CONTROL & PREVENTION Ith Surveillance Program ecupational Safety and Health ale Road, MS LB208 wn, WV 26505 04-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)			TYPE OF READING
29 - NIOSH Syllabus Answer			$A \square B \bowtie F \square$
			orm. Classify all appearances described in the ILO Use symbols and record comments as appropriate.
	osed (dark) Improper po	osition Underinflation	Scapula Overlay
(If not Grade 1, mark all	posed (light) Poor contra		Other (please specify)
boxes that apply) Artifacts	Poor proces	Excessive Edge Enhancement	CP angles cut off. L arm
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES	Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PSPSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	b. ZONES R L UPPER X X MIDDLE X X LOWER X X	0/- 0/0 0/1	LARGE OPACITIES IZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES	Complete Sections NO NO Proceed to Section 4A
	R L in profile and Up to 1/4 of 1/4 to 1/2 of	wall; combined for a face on) lateral chest wall = 1 lateral chest wall = 2 lateral chest wall = 3 L 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION ID III I	Proceed to Section 3D NO Proceed	to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1/4 to 1/2 of lateral chest wall = > 1/2 of lateral chest wall = OR OLL 1 2 3 1 2 3	2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	?	YES Complete Sections 4B-1	E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH		READER'S INITIALS	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE		PRINTED NAME (LAST, FIRST)	
STREET ADDRESS	CITY		STATE ZIP CODE

EXAMPLE DIG M	(T (T' () (T)
EXAMINEE'S Name	(Last, First MII)

4B. OTHER SYMBOLS (OF	BLIGATORY)
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	aa at ax bu ca cg cn co cp cv di ef em es	s fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL & PREVENTION	
CENTERS FOR DISEASE CONTROL & PREVENTION	
EXAMINEE'S Social Security Number Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Full SSN is optional, last 4 digits are required. Full SSN is optional, last 4 digits are required. Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 FAX: 304-285-6058 FAX: 304-285-6058	7
EXAMINEE'S Name (Last, First MI)	╛
30 - NIOSH Syllabus Answer Key TYPE OF READING A B F	
Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropria	
1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay 1	
2A. ANY CLASSIFIABLE PARENCHYMAL ABNORMALITIES? YES Complete Sections 2B and 2C NO Procee Section	
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s UPPER	
3A. ANY CLASSIFIABLE PLEURAL ABNORMALITIES? YES Complete Sections 3B, 3C NO Proceed Sections	
3B. PLEURAL PLAQUES (mark site, calcification, extent, and width) Chest wall Site Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 3 to 5 mm = a 5 to 10 mm = b > 1/2 of lateral chest wall = 3 OR L OR	
3C. COSTOPHRENIC ANGLE OBLITERATION R L Proceed to Section 3D NO Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENING (mark site, calcification, extent, and width) Site Chest wall In profile ORL Face on ORL Site Characterial chest wall = 1 ORL ORL Site Chest wall ORL ORL Site Calcification ORL ORL ORL Site Calcification ORL ORL ORL ORL Site Calcification ORL ORL ORL ORL Site Chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 ORR OR OR OR OR OR OR OR OR	
4A. ANY OTHER ABNORMALITIES? YES Complete Sections 4B-E and 5. NO Complete Section 5.	
5. NIOSH Reader ID READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4	
SIGNATURE PRINTED NAME (LAST, FIRST MIDDLE) STREET ADDRESS CITY STATE ZIP CODE	

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

8	a at ax bu ca cg cn co cp cv di ef em es	fr hi h	o id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	□Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	TION
	FEDERAL MINE SAFETY AND HEALTH ACT O DEPARTMENT OF HEALTH AND HUMAN SER	VICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVEN Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Healt 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
31 - NIOSH Syllabus Answer	Kov	TYPE OF READING
Note: Please record your interpretation of a sir	ngle radiograph by placing an "x" in the appropriate boxes on Pneumoconiosis or Illustrated by the ILO Standard Radiograph	
	Enhancemen	Other (please specify)
ZA. ANI CEASSIFIADEE I ARENCE	IMAL ABNORMALITIES.	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY	b. ZONES R L UPPER X X	C. LARGE OPACITIES SIZE O A B Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) lcification R L Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L O R L 1 R L 1 R L 1 R L 1 R L 1 R L 1 R L 1 R L 1 R L 1 R L 1 R R L 1 R R R R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R B C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO Pr	roceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1 2	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	YES Complete Section	ons 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS H A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, F	STATE ZIP CODE

	-	
EXAMINEE'S Name	(Lact	First MIN
LAAMINEE 5 Name	ı Lası.	1.1121 14111

4B.	OTHER SYMBOLS	(OBLIGATORY))
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	aa	at	ax	bu	ca	cg	cn	co	cp	cv	di	ef	em	es	fr	hi		ho	id	ih	kl	1	me	pa	pb	pi	px	r	a	rp	t	b		
						X][][][
aa		athero	scler	otic a	orta										h	i		en	arge	emen	t of r	non	-cal	cifie	d hila	r or 1	media	ıstin	al 1	ympl	h n	odes		
at		signif	icant	apical	l pleu	ral thi	icken	ing							h	О		ho	neyo	comb	lung	3												
ax		coales	scence	e of sr	nall o	pacit	ies - v	with m	nargii	ns of	the sn	nall o	pacit	ies	i	1		ill-	defi	ined c	liaph	ırag	gm b	orde	r - sh	ould	be re	cord	ded	only	if	more	e thai	n
		remai	ning v	visible	e, wh	ereas	a larg	ge opa	city c	lemoi	nstrate	es a						on	e-thi	ird of	one	hei	midi	aphr	agm	is aff	ected	i						
		homo	genec	ous op	aque	appea	aranc	e - ma	y be	recor	ded e	ither	in the	;	il	1		ill-	defi	ined l	eart	boı	rder	- sho	ould	oe rec	corde	d on	ıly i	if the	le	ngth	of th	e heart
		preser	nce or	in the	e abs	ence o	of larg	ge opa	cities	S								bo	rder	affec	ted,	wh	ethe	r on	the r	ight o	or on	the !	left	side	, is	mor	e tha	n
bu		bulla(e)															on	e-thi	ird of	the	len	gth o	of the	e left	hear	t bord	ler						
ca		cance	r, tho	racic 1	malig	nanci	es ex	cludin	g me	sothe	lioma	ı			k	1		sep	otal	(Kerl	ey) l	ine	S											
cg		calcif	ied no	on-pne	eumo	conio	tic no	dules	(e.g.	gran	uloma	ı) or	nodes		n	ne		me	soth	nelior	na													
cn		calcif	icatio	n in sı	mall j	pneun	nocor	niotic (opaci	ties					p	a		pla	ite a	telect	asis													
co		abnor	malit	y of ca	ardia	c size	or sh	ape							p	b		pa	enc	hyma	ıl baı	nds	- si	gnifi	cant	paren	chyn	ıal f	ibro	otic s	stan	ıds iı	n con	tinuity
cp		cor pu	ılmon	ale														wi	th th	ne ple	ura													
cv		cavity	,												p	i		ple	ural	l thicl	kenir	ng c	of an	inte	rloba	ır fiss	sure							
di		marke	ed dis	tortio	n of a	n intr	athor	acic st	ructu	ıre					p	X		pn	eum	othor	ax													
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em		emph	ysema	a											r	9		rhe	euma	atoid	pnet	ımo	ocon	iosis	;									
es		eggsh	ell ca	lcifica	ation	of hil	ar or	media	stina	llym	ph no	des			tl)		tub	ercu	ulosis	;													
fr		fractu	red ri	b(s) (a	acute	or he	aled)																											

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐Azygos lobe
	☐ Hiatal hernia		☐ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality
	•		Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES	NO NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

CT may be required to distinguish large pneumoconiotic opacities from face on plaque.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058 MORGAN CONTROL & PREVENTION OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	TYPE OF READING
32 - NIOSH Syllabus Answer	Key A B F
	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO reumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.
1. IMAGE QUALITY Overexpo	sed (dark) Improper position Underinflation Scapula Overlay
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Poor contrast Mottle Other (please specify) Poor processing Excessive Edge Enhancement
2A. ANY CLASSIFIABLE PARENCH	
2B. SMALL OPACITIES a SHAPE/SIZE PRIMARY SECONDARY D S D S t X t r u r u	D. ZONES C. PROFUSION O/- O/0 O/1
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO Proceed to Section 4A
	R L L C R C C R C C R C C
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 ORL ORL ORL ORL Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 ORR ORL ORR ORR ORR ORR ORR ORR ORR ORR
4A. ANY OTHER ABNORMALITIES	YES Complete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE
	S.IIIE ZII CODE

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EXAMINEE'S Name	(Last Hirst MI)	
12XXXIVIIIVIII B INGIIIC	t Last, I list will	

4B.	OTHER	SYMBOLS	(OBLIGATORY)

a	a at ax bu ca cg cn co cp cv di ef em es i	ir hi h	no id ih kl me pa pb pi px ra rp tb
\triangleright			
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV 02/2019	
EXAMINEE'S Social Security Number OMB No.: 0920-0020	
National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 FACILITY Number - Unit Number	_
Full SSN is optional, last 4 digits are required. Morgantown, WV 26505 FAX: 304-285-6058 EXAMINEE'S Name (Last, First MI)	
33 - NIOSH Syllabus Answer Key TYPE OF READING A B F	
Note: Please record your interpretation of a single radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO International Classification of Radiographs of Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.	
1. IMAGE QUALITY Overexposed (dark) Improper position Underinflation Scapula Overlay 1	
2A. ANY CLASSIFIABLE PARENCHYMAL ABNORMALITIES? YES Complete Sections 2B and 2C Proceed to Section 3	
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s X s UPPER X X 1/0 1/1 1/2 t q t MIDDLE X X 2/1 X 2/3 r u r u LOWER X X 3/2 3/3 3/+ 2C. LARGE OPACITIES SIZE O A X C Proceed to Section 3A	
3A. ANY CLASSIFIABLE PLEURAL ABNORMALITIES? YES Complete Sections 3B, 3C NO Proceed to Section 4/1	
3B. PLEURAL PLAQUES (mark site, calcification, extent, and width) Chest wall Site Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 OR L OR	
3C. COSTOPHRENIC ANGLE OBLITERATION R L Proceed to Section 3D NO Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENING (mark site, calcification, extent, and width) Site Chest wall In profile ORL Face on ORL Site Commark site, calcification, extent, and width) Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 OR OR OR OR OR OR OR OR OR OR	
4A. ANY OTHER ABNORMALITIES? YES Complete Sections 4B-E and 5. NO Complete Section 5.	
5. NIOSH Reader ID READER'S INITIALS O 3 - 1 1 - 2 0 2 4 (Leave ID Number blank if you are not a NIOSH A or B Reader)]
SIGNATURE PRINTED NAME (LAST, FIRST MIDDLE) STREET ADDRESS CITY STATE ZIP CODE	

EXAMPLE DIG M	(T (T' () (T)
EXAMINEE'S Name	(Last, First MII)

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ef em es t	fr hi	ho id ih kl me pa pb pi px ra rp tb									
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes									
at	significant apical pleural thickening	ho	honeycomb lung									
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than									
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected									
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart									
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than									
bu	bulla(e)		one-third of the length of the left heart border									
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines									
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma									
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis									
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity									
cp	cor pulmonale		with the pleura									
cv	cavity	pi	pleural thickening of an interlobar fissure									
di	marked distortion of an intrathoracic structure	px	pneumothorax									
ef	pleural effusion	ra	rounded atelectasis									
em	emphysema	rp	rheumatoid pneumoconiosis									
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis									
fr	fractured rib(s) (acute or healed)											

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders Bronchovascular markings, heavy or increased		☐ Infiltrate ☐ Nodule, nodular lesion
	☐ Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities
	Bony chest cage abnormality Fracture, healed (non-rib)		☐ Foreign body ☑ Post-surgical changes/sternal wire ☐ Cyst
	☐Fracture, not healed (non-rib) ☐Scoliosis		Vascular Disorders ☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D.	OTHER COMMENTS		

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EXAMINEE'S Name	(Last, First MII)

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4B.	OTHER	SYMBOL	S (OBLIGATORY)	

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb									
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes									
at	significant apical pleural thickening	ho	honeycomb lung									
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than									
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected									
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart									
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than									
bu	bulla(e)		one-third of the length of the left heart border									
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines									
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma									
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis									
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity									
cp	cor pulmonale		with the pleura									
cv	cavity	pi	pleural thickening of an interlobar fissure									
di	marked distortion of an intrathoracic structure	px	pneumothorax									
ef	pleural effusion	ra	rounded atelectasis									
em	emphysema	rp	rheumatoid pneumoconiosis									
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis									

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☑ Density, lung
	Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation		☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities
	Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis		☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality
4E.	□Vertebral column abnormality Should worker see personal physician because of findings?	YES X	Date Physician or Worker notified? (mm-dd-yyyy)
4D.	OTHER COMMENTS		

3 cm density behind R heart, possible mass.

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		Ľ	4] [t	_	q	l T			OWER				2/1	2/2 2	/3												
		L	r u	<u> </u>	r	u				X			3/2	3/3 3	/ +												
	3A.	AN	Y CL	ASSII	FIAI	BLE PI	LEUF	RAL A	BNOR	MALI	TIES?	•					YES	\geq		Complet B, 3C	te Sec	ctions	N	0		roceed ection	
	3B.		EURA	L PL	_	U ES ite	(mark		cification	on, exten		vidth) Extent (cl	hest wall	· combin	ed for		ı	Wid	th (in)	profile	onlv)						
		Chest	: wall In profil	e C	<u> </u>	 7 -	1	0	R	7	i	<i>n profile</i> Up to 1/4	and face	on)				(3m		imum v		require	ed)				
			Face on	=			i	0	R	의 기		1/4 to 1/2	2 of later	al chest	wall =	2		5 to	10 mr 10 mr	n = b							
			hragm	C) I		i	0	R X	<u>기</u>	۱г	o > 1/2	2 of later	al chest	wall =	<u> </u>		0]		O	X				
		Othe	er site(s)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		R L	i l	X	R L	֡֟֟֟֝֟֟֝				1				X	b	c]	$\overline{\mathbf{X}}$	b	С	1		
	3C.	CO	STOF	HRE		ANGI	TE O	BLITI	ERATI	ON		R L		eed to	NO		Procee	d to Sec	ction 4			انت		_			
	3D.					AL TH					L		Secti	on 3D Extent		<u> </u>	mbined fo				(in pr	ofile or	ıly)				
	SD.	ווע	r r USI	LPLI				ENIIN		k site, co t, and w		tion,		in profi	le and	l face on)				(3mm r 3 to 5		num wid = a	dth re	quire	d)		
		Ches	st wall		S	Site			C	alcificat	tion			1/4 to	1/2 of	f lateral c	hest wall	= 2		5 to 10 > 10	mm :						
			In profi	le C) [R L]		O	R	L		O	R	1/2 0	O	L	-3		\neg \vdash	R	·		o	L		
			Face on	C) [R L]		O	R	L		1	2	3	1	2	3		a	b	c		a	b	c	
	4A.	AN	YOT	HER	ABN	NORM	ALIT	TIES?					Y	ES \sum	C	omplete S	Sections 41	B-E and	5.	N	О		Comj	plete	Section	ı 5.	
	5.	NI	OSH I	Reade	r ID								REA	DER'S	INI	TIALS		DA	TE C	F RE.	ADI	NG (n	ım-c	ld-y	yyy)		٦
	N		C) {	S	Н												1	0	-	1	5 -	- 2	2 () 2	4	
	(Le	ave ID	Numbe	er blan	k if y	ou are n	ot a N	IOSH A	or B Re	eader)		_	_	·													•
	SIG	SNATU	JRE										I	PRINTE	O NA	ME (LAS	ST, FIRS	T MIDI	DLE)								_
																		Γ		7 [Τ			
	STI	REET	ADDR	ESS							CITY	7						_ L	STATE	_		ZI	P CC	DDE		Ш	

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ef em es	tr	hı	hc) 1d	ıh	kl	me	pa	pb	pı	px	ra	rp	tb	
aa	atherosclerotic aorta	hi			enlarge	ement	of no	n-cal	cified	hilar	or m	edias	tinal	lympl	nodes	;
at	significant apical pleural thickening	ho)		honeyc	omb 1	ung									
ax	coalescence of small opacities - with margins of the small opacities	id			ill-defi	ned di	aphra	ıgm b	order	- sho	uld b	e rec	orded	only	if mor	e than
	remaining visible, whereas a large opacity demonstrates a				one-thi	rd of o	one h	emidi	iaphra	ıgm is	s affe	cted				
	homogeneous opaque appearance - may be recorded either in the	ih			ill-defi	ned he	art b	order	- sho	uld b	e reco	orded	only	if the	length	of the heart
	presence or in the absence of large opacities			İ	border	affect	ed, w	hethe	er on t	he rig	ght or	on th	ne left	side,	is mor	e than
bu	bulla(e)				one-thi	rd of t	he le	ngth (of the	left l	neart l	borde	er			
ca	cancer, thoracic malignancies excluding mesothelioma	kl			septal (Kerle	y) lin	es								
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	m	e		mesoth	eliom	a									
cn	calcification in small pneumoconiotic opacities	pa	l		plate at	telecta	sis									
co	abnormality of cardiac size or shape	pł)		parencl	hymal	band	s - si	gnific	ant p	arenc	hyma	ıl fibr	otic s	ands i	n continuity
cp	cor pulmonale				with th	e pleu	ra									
cv	cavity	pi			pleural	thicke	ening	of ar	inter	lobar	fissu	re				
di	marked distortion of an intrathoracic structure	px			pneum	othora	X									
ef	pleural effusion	ra			rounde	d atele	ectasi	S								
em	emphysema	rp			rheuma	atoid p	neun	nocon	iosis							
es	eggshell calcification of hilar or mediastinal lymph nodes	tb			tubercu	ılosis										
fr	fractured rib(s) (acute or healed)															

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		\Box Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO X
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	ERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVE Coal Workers' Health Surveillance Program National Institute for Occupational Safety and He 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
36 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a sir		A B F III on this form. Classify all appearances described in the ILO graphs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancem	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES:	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S Q t Q t T U T U	b. ZONES R L UPPER MIDDLE LOWER D. PROFUSION 0/- 0/0 0/1 1/0 1/1 1/2 2/1 2/2 2/3 LOWER 3/2 3/3 3/+	SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) Continuous continu	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O b a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO X	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL ORL Extent (chest wall; comin profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral che > 1/2 of lateral che OR ORL ORL ORR ORR ORR ORR ORR	(3mm minimum width required) ast wall = 1 ast wall = 2 best wall = 2 (3mm minimum width required) a to 5 mm = a b to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sec	ctions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [I A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST	T, FIRST MIDDLE) STATE STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

4B.	OTHER SYMBOLS	(OBLIGATORY))
TD.	OTTILK STRIDGES	ODLIGHTORI	1

	aa at ax bu ca cg cn co cp cv di ef em e	s fr hi	ho id ih kl me pa pb pi px ra rp tb	
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes	
at	significant apical pleural thickening	ho	honeycomb lung	
ax	coalescence of small opacities - with margins of the small opacities		ill-defined diaphragm border - should be recorded only if more than	
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected	
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart	
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than	
bu	bulla(e)		one-third of the length of the left heart border	
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines	
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma	
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis	
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity	
cp	cor pulmonale	•	with the pleura	
cv	cavity	pi	pleural thickening of an interlobar fissure	
di	marked distortion of an intrathoracic structure	px	pneumothorax	
ef	pleural effusion	ra	rounded atelectasis	
em	emphysema	rp	rheumatoid pneumoconiosis	
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis	
fr	fractured rib(s) (acute or healed)			
AC MARK ALL DOVECTHAT ADDLY (I. C.I. I				
4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)				
A	Abnormalities of the Diaphragm			
_	☐ Eventration		Lung Parenchymal Abnormalities	
L	_ Evenuation		Azvgos lobe	

	☐ Eventration ☐ Hiatal hernia Airway Disorders		□ Azygos lobe □ Density, lung □ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES	NO X

4D. OTHER COMMENTS

Other sites calcified pleural plaque visible adjacent to spine at T8-9.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION	
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 NATIONAL OF THE NO.: 0920-0020 CDC/NIOSH (M) 2.8 REV FACILITY Number - Unit N	
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)		
37 - NIOSH Syllabus Answer	Key TYPE OF READING A B F	
	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances describe Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as	
	osed (dark) Improper position Underinflation Scapula Overlay posed (light) Poor contrast Mottle Other (please specify) Poor processing Excessive Edge	
2A. ANY CLASSIFIABLE PARENCH	Enhancement	Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t r u r u		occed to ction 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO SB, 3C	Proceed to Section 4A
	calcification, extent, and width) Colification]
3C. COSTOPHRENIC ANGLE OBLI	Section 3D 10	
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile Face on R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 O X L R L Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 > 1/2 of lateral chest wall = 3 O X L X 2 3 1 2 3 Width (in profile only) (3mm minimum width required at 5 to 10 mm = a > 10 mm = c O X C A C A C A C A C A C A C A C A C A C	L b c
4A. ANY OTHER ABNORMALITIES	? YES Complete Sections 4B-E and 5. NO Complete S	Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS DATE OF READING (mm-dd-yy 1 0 - 1 5 - 2 0	
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE	

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

37 - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (OF	BLIGATORY)
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	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis
	material metal (and the or meaner)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE	OF I	RADI	OGR	APH ((mP -dG	-\\\\)	C	HEST	RAD	IOGF	RAPH (CLA	SSIFI	ICAT I	ION							
				\prod	\prod		D	DEPART	MENT	OF HE	TY AND ALTH A	ND H	UMAN	N SERV	ICES							
					ity Num			٦	Coal Wo	orkers' H titute for 5 Willov	SE CON' Health Surv Occupation White Roa Intown,	veilland onal Sa nd, MS	ce Progr afety and LB208	ram		FA		NIOSH	(M)	2.8 RE	EV. 02/2 Numbe	
		•			digits an	-	uired.				110wii, w K: 304-285)3									
38 -	NIC	OSH	H S	yllat	ous A	nsw	er Ke	∍y								T A	YPE O	F REA		÷		
Intern	natior	nal Cla	assific	cation	of Radio						x" in the aby the ILO											
	1 (If no	ot Grades that a	3 le 1, ma	UALIT U/R ark all	ГY		•	l (dark) ed (light)		Imprope Poor cor			Mottle Exces	rinflation e ssive Edg	e	[[Other (p	apula (olease s ordot	specify)		
2A	<i>I</i>	ANY	CLAS	SSIFL	ABLE P	AREN	СНҮМ	AL ABN	ORMAI	LITIES?	?		Ennar		ES		Comple 2B and	ete Sect l 2C	ions	NO		Proceed to Section 3A
2В		PRIM p	a. SH	PACI'. IAPE/SIZ SE		Y	MI		D. ZONES R L		c. PROF 0/- 0/ 1/0 1/ 2/1 2/ 3/2 3/	FUSION /0 0/1 /1 1/2 /2 2/3 /3 3/+]]]	2C.	SIZE		O A	CITIE	C		Proceed to Section 32	-
3A		ANY	CLAS	SSIFL	ABLE P	LEUR	AL AB	NORMA	LITIES	?				YE	es [X	Comple 3B, 3C	ete Sect	ions	NO		roceed to ection 4A
3В	Cł	hest wa In p	all profile se on agm	0 0 0	QUES Site R X R X X L	(mark .	site, calci Calcific OR OR OX	ification, extration		Extent (ch in profile Up to 1/4 1/4 to 1/2	nest wall; co and face on of lateral cl 2 of lateral c	n) chest wal chest wa	ll = 1 lll = 2		(3 to 5 to 10 > 10	minimum mm = a mm = b mm = c	widthr	O)) 		
3C		COST	ГОРН	IRENI	IC ANG	LE O	BLITER	RATION		X L	Proceed Section 3		NO [Proc	ceed to	Sectio						
3D		Chest w		PLEU	Site L R L		ENING	(mark site extent, an Calcif		tion,	in U	<i>profile</i> Up to 1/4 1/4 to 1/2	and face 4 of latera 2 of later	combined on) al chest war all chest war al c	all = 1 all = 2		3 to 3 to 1	a (in proj minimum 5 mm = 0 mm = 0 mm =	ım widt a b		L	с
4A	1	ANY	отн	ER AI	BNORM	ALIT	IES?				YES	;	Comple	te Sections	s 4B-E a	and 5.	1	NO S	C	omplet	e Section	5.
	N	I	0	sader I S blank if	Н	not a NI	OSH A o	r B Readei	r)	7	READI	ER'S I	INITIA	LS	Γ		O -				0 2	4
_		ATURI		SS					CIT	Y	PRI	NTED I	NAME (I	LAST, FIF	RST MI	STA			ZIP	CODE		

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

38 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVE Coal Workers' Health Surveillance Program National Institute for Occupational Safety and He 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)		TYPE OF READING
39A - NIOSH Syllabus Answe	er Key	A B F
	gle radiograph by placing an "x" in the appropriate boxes of Pneumoconiosis or Illustrated by the ILO Standard Radiog	
2 3 U/R Underex	posed (dark) Improper position Underinfla Poor contrast Mottle Poor processing Excessive	Other (please specify)
boxes that apply) Artifacts 2A. ANY CLASSIFIABLE PARENCH	Enhancem	ent Complete Sections NO Proceed to
2B. SMALL OPACITIES	b. ZONES c. PROFUSION	2B and 2C NO Section 3A 2C. LARGE OPACITIES
a. SHAPE/SIZE PRIMARY SECONDARY P S P S Q t Q t T U T U	MIDDLE 2/1 2/2 2/3 LOWER 3/2 3/3 3/+	SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R L Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 O R O L R L 1 2 3 3 3 3 3 3 3 3 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) st wall = 1 st wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sec	ctions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST	STATE ZIP CODE

EVAMI	JEDIC	Mara	(T aat	First MI)	
EAAMI	NEE 3	Name	(Last.	First IVII	1

39A - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (OF	BLIGATORY)
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	aa	at	ax	bu	ca	cg	cn	co	cp	cv	dı	ef	em	es	tr	hı	ho	ıd	ıh	kl	me	pa	pb	рı	px	ra	rp	tt)
aa		ather	oscler	otic a	orta										h	i	en	large	ement	of no	n-ca	lcifie	d hila	r or n	nedia	stinal	lymp	h no	odes
at		signif	icant	apica	l plet	ıral th	icken	ing							h	0	ho	neyc	omb	lung							• •		
ax		coale	scenc	e of s	mall (opaci	ies -	with 1	nargi	ins of	the sr	nall o	pacit	ies	i	d	ill-	-defi	ned d	iaphra	agm	bord	er - sh	ould l	be red	corde	d only	if 1	more than
		remai	ning	visible	e, wh	ereas	a larg	ge opa	acity	demoi	ıstrat	es a	•							-	_		ragm				•		
	homogeneous opaque appearance - may be recorded either in the						i	n	ill-	-defi	ned h	eart b	orde	r - sh	ould t	e rec	ordeo	donly	if the	e ler	ngth of the heart								
		prese	nce o	r in th	e abs	ence	of lar	ge op	acitie	es							bo	rder	affec	ted, w	heth	er on	the ri	ght o	r on t	he le	ft side	, is	more than
bu		bulla	(e)														on	e-thi	rd of	the le	ngth	of th	e left	heart	bord	er			
ca		cance	r, tho	racic	malig	gnanc	ies ex	cludi	ng m	esothe	lioma	a			k	1	se	ptal (Kerle	y) lin	es								
cg		calcif	ied n	on-pn	eumo	conic	tic no	dules	s (e.g	. granı	ıloma	a) or	nodes	S	r	ne	me	esoth	elion	na									
cn		calcif	icatio	n in s	mall	pneui	noco	niotic	opac	ities					r	a	plate atelectasis												
co		abnor	malit	y of c	ardia	c size	or sh	ape							p	b	parenchymal bands - significant parenchymal fibrotic stands in continuity						ds in continuity						
cp		cor p	ulmor	nale													wi	th th	e plei	ıra									
cv		cavity	/												p	i	ple	eural	thick	ening	of a	n int	erloba	r fissi	ure				
di		mark	ed dis	tortio	n of a	ın inti	athor	acic s	truct	ure					p	X	pn	eum	othor	ax									
ef		pleura	al effi	ısion											r	a	ro	unde	d atel	ectasi	s								
em		emph	ysem	a											r	p	rhe	euma	atoid j	pneun	noco	niosi	S						
es		eggsh	ell ca	lcific	ation	of hil	ar or	media	astina	al lym	ph no	des			t	0	tul	bercu	ılosis										
fr		fractu	ired ri	ib(s) (acute	or he	aled)																						

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DA	TE O	F RAD	IOGR	APH (mP -dG	.\\\)	C	CHES	T RA	DIOC	GRAPI	H CL	ASS	IFIC	ATIO	N							
					\prod	$\overline{\Box}$	Ε	DEPAR	TMEN	T OF F	FETY A HEALTH	H AND	HUM	IAN SI	ERVICI	ES							
EX	AMIN	JEE'S S	Social	Securi	ity Numl	ber	<u> </u>	CENTE			EASE CO s' Health				ENTIO	N			0920-00		EV 02	/2010	
								Na	ational Ir	stitute	for Occup llowdale	pational	Safety	y and He	ealth	F	'ACILI		H (M)				
Ful	l SSN	is opti	onal,	last 4 (digits ar	e req	uired.		• •	Mor	rgantown AX: 304-	, WV 26	6505	200		Γ					1141112		
EX.	AMIN	IEE'S I	Name	(Last,	First M	(I) _		_	_							L				∟ [⁻] ل			l
38)B -	NIO	SH	Sylla	abus <i>i</i>	Ans	wer k	Key									TYPE C A B	OF RE		3]			
											nn "x" in ted by the												
	1.	IMAC	GE QU	JALIT	Y	Over	rexposed	d (dark)		Impro	oper posit	ion	Uı	nderinfla	ation		S	capula	Overla	.y			
	_1		3	U/R		Unde	erexpose	ed (light)	Poor	contrast		M	lottle			Other (please	specify	y)			
		f not Grad		ark all		Artif	acts			Poor	processin	ıg [xcessive nhancen	_								
	2A.	ANY	CLAS	SSIFIA	ABLE PA	AREN	СНҮМ	IAL AB	NORM	ALITII	ES?				YES	\boxtimes	Comp 2B an	olete Sec nd 2C	ctions	NO		Proceed Section	
	2B.	SMA	_	PACIT					b. ZONES	;	c. P	PROFUSIO			2C.	LARG	GE OPA	CITI	ES				
		PRIM	MARY		CONDARY	ľ	ÜE	PPER	R L	7	0/-	0/0 0	1/2			Г		— —		¬ ,	٠		
		q		<u> </u>				IDDLE		<u> </u>	2/1	2/2	2/3		S	SIZE	XL	A I	ВС		Proceed Section 3		
		r	u		r u		LC	OWER			3/2	3/3	3/+										
F	3A.	ANY	CLAS	SSIFIA	ABLE PI	LEUR	AL AB	NORM	ALITIE	= S?					YES		Comp 3B, 30	olete Sec	ctions	NO	1 X I	Proceed Section 4	
<u> </u>	3B.			PLA(QUES Site	(mark :	site, calc	-	extent, an		(chest wal	II- combi	nod for			Width	(in profi	ìle only,)				
		Chest w	all profile	О	R	ן ר	OR	L		in proj	file and fac 1/4 of late	ce on)		1		(3mm	minimur $5 \text{ mm} = a$	m width		1)			
			ce on	O	R	j j	O R	L		1/4 to	1/2 of late 1/2 of late	eral chest	wall = 2	2			0 mm = 0 $0 mm = 0$						
		Diaphr	agm	O	R L	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	O R	L		0	R	0	┑┌]		O	R	_	0	L			
L		Other s	site(s)	O	R L] [O R	L		1	2 3	1	2	3		a	b	;	a	b	:		
L	3C.	COS	ТОРН	RENI	C ANG	LE OI	BLITE	RATIO	N	R	I I	ceed to tion 3D	NO)	Proceed	to Secti							
	3D.	DIFF	USE I	PLEUI	RAL TH	IICKI 	ENING		ite, calcifi and width)			in prof	file and	face on)	nbined for est wall =		(3mr		rofile oni num wid = a		red)		
		Chest v	wall		Site			Calc	cification			1/4 to	1/2 of	lateral ch	nest wall = nest wall =	= 2	5 to	10 mm	= b				
		In	profile	0	R L]		0	R L]	C	R		0	L	_	O	R		O	L		
		Fa	ce on	O	R L	<u> </u>		0	R L	<u>] </u>	1	2	3	1	2 3	j	a	b	c	a	b	c	
	4A.	ANY	отн	ER AP	BNORM	ALIT	IES?					YES	Con	mplete Se	ections 4B	-E and 5		NO	X	Complet	te Sectio	n 5.	
	5.	NIOS	SH Re	ader I	D						RE	ADER'S	S INI	TIALS		DAT	E OF R	EADI	NG (m	m-dd-	уууу)		
	N	. I	0	S	Н											1	0 -	1	5 -	2	0 2	2 4	
	(Lea	ave ID N	umber	blank if	you are n	ot a NI	OSH A o	or B Read	ler)	_													
	L										_												
	SIG	SNATUR	Œ									PRINTE	D NAN	ME (LAS	T, FIRST	MIDDI	Æ)	_					
	STI	REET AI	DDRES	S					Cl	ITY						ST	ATE		ZIF	CODE	3		

	-	
EXAMINEE'S Name ((Lact	First MIN
EXAMINEE 5 Name (ı Lası.	THOUNDIN

39B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	ho id ih kl me pa pb pi px ra rp tb					
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes					
at	significant apical pleural thickening	ho	honeycomb lung					
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than					
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected					
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart					
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than					
bu	bulla(e)		one-third of the length of the left heart border					
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines					
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma					
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis					
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity					
cp	cor pulmonale		with the pleura					
cv	cavity	pi	pleural thickening of an interlobar fissure					
di	marked distortion of an intrathoracic structure	px	pneumothorax					
ef	pleural effusion	ra	rounded atelectasis					
em	emphysema	rp	rheumatoid pneumoconiosis					
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis					

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders		□Infiltrate
	☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation		☐ Nodule, nodular lesion Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO X
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058 MOREO OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	TYPE OF READING
39C - NIOSH Syllabus Answe	r Key TYPE OF READING A B F
	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.
	osed (dark) Improper position Underinflation Scapula Overlay osed (light) Poor contrast Mottle Other (please specify) Poor processing Excessive Edge Enhancement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY S Q t q t u r u	C. PROFUSION C. PROFUSION O/- O/0 O/1 O/- O/-
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO Proceed to Section 4A
	R L L C R L C R C R L C R C R L C R C C
3C. COSTOPHRENIC ANGLE OBLIT	TERATION R L Proceed to Section 3D NO Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENING Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 OR L OR L 1 2 3 1 2 3 1 2 3
4A. ANY OTHER ABNORMALITIES	PYES Complete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE

EXAMINEE'S Name (Last, Fi	rst MII)
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39C - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY	١
4D.	OTHER	O I WIDON	ഹ ധാവ	JULATURI	,

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	ho id ih kl me pa pb pi px ra rp tb					
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes					
at	significant apical pleural thickening	ho	honeycomb lung					
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than					
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected					
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart					
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than					
bu	bulla(e)		one-third of the length of the left heart border					
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines					
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma					
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis					
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity					
cp	cor pulmonale		with the pleura					
cv	cavity	pi	pleural thickening of an interlobar fissure					
di	marked distortion of an intrathoracic structure	px	pneumothorax					
ef	pleural effusion	ra	rounded atelectasis					
em	emphysema	rp	rheumatoid pneumoconiosis					
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis					

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAP	H CLASSIFICATION	I
	FEDERAL MINE SAFETY A DEPARTMENT OF HEALTI	H AND HUMAN SERVICES	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE Coal Workers' Health National Institute for Occu 1095 Willowdale Morgantown FAX: 304	Surveillance Program pational Safety and Health Road, MS LB208 a, WV 26505	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
39D - NIOSH Syllabus Answe	ar Kev		TYPE OF READING
Note: Please record your interpretation of a sin	gle radiograph by placing an "x" in		A B F F Care. Classify all appearances described in the ILO e symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts		Mottle	Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES	Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY S Q t q t u r u	b. ZONES R L UPPER	PROFUSION 2C. I. 0/0 0/1	ARGE OPACITIES A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES [Complete Sections NO Proceed to Section 4A
	1/4 to 1/2 of late	ce on) eral chest wall = 1	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION IN I	ceed to tion 3D NO Proceed to	o Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile R L Face on R L	NG (mark site, calcification, extent, and width) Calcification R L R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 R L 1 2 3 1 2 3	5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	?	YES Complete Sections 4B-E	and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	[ADER'S INITIALS	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, FIRST M	STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

39D - NIOSH Syllabus Answer Key

4R	OTHER	SVMR	210	(ORLIG	ATORY)
4D.	OTHER	O I VID	(71.45	CODLAG	A I () (I)

8	a at ax bu ca cg cn co cp cv di ei em es	ir ni i	no id in ki me pa po pi px ra rp to						
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes						
at	significant apical pleural thickening	ho	honeycomb lung						
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than						
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected						
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart						
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than						
bu	bulla(e)		one-third of the length of the left heart border						
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines						
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma						
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis						
со	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity						
ср	cor pulmonale	P	with the pleura						
cv	cavity	pi	pleural thickening of an interlobar fissure						
di	marked distortion of an intrathoracic structure	px	pneumothorax						
ef	pleural effusion	ra	rounded atelectasis						
em	emphysema		rheumatoid pneumoconiosis						
	eggshell calcification of hilar or mediastinal lymph nodes	rp tb	tuberculosis						
es fr		ω	tubelculosis						
11	fractured rib(s) (acute or healed)								

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung	
Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation	☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities	
Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Scoliosis Vertebral column abnormality	☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality	
Should worker see personal physician because of findings? OTHER COMMENTS	Physician or Worker notified? (mm-dd-yy) YES NO NO	уу)

Post-surgical changes in lumbar spine.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOG	RAPH CLASSIFICA	ATION	
	DEPARTMENT OF HI	ETY AND HEALTH ACT	ERVICES	
EXAMINEE'S Social Security Number	Coal Workers'	ASE CONTROL & PREVI Health Surveillance Program	OMB No.: 0920-00. CDC/NIOSH (M)	
		or Occupational Safety and He owdale Road, MS LB208	ealth FACILITY Number -	· Unit Number
Full SSN is optional, last 4 digits are require		antown, WV 26505 X: 304-285-6058		7-
EXAMINEE'S Name (Last, First MI)			TYPE OF READING	
40A - NIOSH Syllabus Answe			A B F	
Note: Please record your interpretation of a sin International Classification of Radiographs of				
1. IMAGE QUALITY Overexp	osed (dark) Improp	per position Underinfla	ntion Scapula Overlay	ý
	posed (light) Poor co	ontrast Mottle	Other (please specify	·)
(If not Grade 1, mark all boxes that apply) Artifacts	Poor p	rocessing Excessive Enhancem	·	
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES	5?	YES Complete Sections 2B and 2C	NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE	b. ZONES	c. PROFUSION	2C. LARGE OPACITIES	
PRIMARY SECONDARY P S P S	R L UPPER	1/0 1/1 1/2		Proceed to
q t q t	MIDDLE	2/1 2/2 2/3	SIZE O A B C	Section 3A
r u r u	LOWER	3/2 3/3 3/+		
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	'	YES Complete Sections 3B, 3C	NO Proceed to Section 4A
Sita Ca	calcification, extent, and width)	chest wall; combined for	Width (in profile only)	
Chest wall In profile O R L O	in profil	e and face on) 4 of lateral chest wall = 1	(3mm minimum width required 3 to 5 mm = a)
Face on O R L O	1/4 to 1	/2 of lateral chest wall = 2 /2 of lateral chest wall = 3	5 to 10 mm = b > $10 \text{ mm} = \text{c}$	
Diaphragm ORLO		O L	O R O I	
Other site(s) ORLO	R L 1	2 3 1 2 3	a b c a l	b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R I	Proceed to Section 3D NO	Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENI	NG (mark site, calcification, extent, and width)	Extent (chest wall; com in profile and face on)	(3mm minimum widt	
Site Chest wall	Calcification	Up to 1/4 of lateral che	est wall = 2 $5 \text{ to } 10 \text{ mm} = b$	
In profile ORL	O R L	> 1/2 of lateral ch	est wall = 3 > 10 mm = c O R	O L
Face on ORL	O R L	1 2 3 1	2 3 a b c	a b c
4A. ANY OTHER ABNORMALITIES	?	YES Complete Se	ctions 4B-E and 5. NO C	omplete Section 5.
5. NIOSH Reader ID		READER'S INITIALS	DATE OF READING (mi	n-dd-yyyy)
NIOSH			10-15-	2 0 2 4
(Leave ID Number blank if you are not a NIOSE	I A or B Reader)			
SIGNATURE		PRINTED NAME (LAS	I, FIRST MIDDLE)	
			[_]	
STREET ADDRESS	CITY		STATE ZIP	CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

40A - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS ((OBLIGATORY)

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	aı	eī	en	ı es	1	īr	nı	n	0 10	ın	KI	m	e p	ı pu	p)1	px	ra	rp	το	
aa		ather	oscle	rotic a	orta											hi			enlarg	gemen	t of n	on-c	alcifi	ed hil	ar oi	r me	dias	tinal	lympl	nod	es
at		signi	fican	apica	al pleu	ıral th	nicker	ning								ho			honey	comb	lung								_		
ax		coale	scen	ce of s	small	opaci	ties -	with	margi	ns of	the si	mall	opac	ities		id			ill-def	ined d	liaph	ragm	boro	ler - sl	oul	d be	rec	orded	only	if mo	ore than
		rema	ining	visib	le, wh	ereas	a lar	ge op	acity	demo	nstrat	es a							one-th	nird of	one	hemi	diap	ıragm	is a	ffec	ted		•		
		homo	ogene	ous o	paque	appe	aranc	e - n	nay be	recor	ded e	ither	in th	ie		ih							_	_				only	if the	leng	th of the heart
		prese	ence o	or in th	ne abs	ence	of lar	ge oj	pacitie	S									borde	r affec	ted,	whet	her o	n the i	ight	or	on th	ne lef	t side,	is m	ore than
bu		bulla	(e)																one-th	nird of	the 1	engt	n of t	he lef	hea	art b	orde	er			
ca		cance	er, the	oracic	malig	gnanc	ies ex	clud	ing m	esothe	liom	a				kl			septal	(Kerl	ey) li	nes									
cg		calci	fied n	on-pn	eumo	conic	otic n	odule	es (e.g	. gran	ulom	a) or	node	es		me	•		mesot	helion	na										
cn		calci	ficati	on in s	small	pneui	moco	nioti	c opac	ities						pa			plate a	atelect	asis										
co		abno	rmali	ty of c	cardia	c size	or sh	nape								pb			parenchymal bands - significant parenchymal fibrotic stands in continuity							in continuity					
cp		cor p	ulmo	nale															with t	he ple	ura										
cv		cavit	y													pi			pleura	ıl thick	cenin	g of	an in	terlob	ar fi	ssur	e				
di		mark	ed di	stortic	on of a	an int	ratho	racic	struct	ure						px			pneun	nothor	ax										
ef		pleur	al eff	usion												ra			round	ed ate	lectas	sis									
em		empl	nysen	ıa												rp			rheum	natoid	pneu	moc	onios	is							
es		eggsl	hell c	alcific	ation	of hi	lar or	med	iastina	ıl lym	ph no	des				tb			tubero	culosis											
fr		fracti	ured 1	ib(s)	(acute	or he	ealed))																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal A Azygos lobe	Abnormalities
	☐ Hiatal hernia	Density, lung	
	Airway Disorders	☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular le	sion
	☐ Hyperinflation	Miscellaneous Abnor	rmalities
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical chan	ges/sternal wire
	Fracture, healed (non-rib)	\Box Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	Scoliosis	\square Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormal	ity
		Date Physician	or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	ES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	TION
	FEDERAL MINE SAFETY AND HEALTH ACT OF DEPARTMENT OF HEALTH AND HUMAN SEE	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PREVEI Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Hea 1095 Willowdale Road, MS LB208	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	d. Morgantown, WV 26505 FAX: 304-285-6058	
40B - NIOSH Syllabus Answe	r Key	TYPE OF READING A
	gle radiograph by placing an "x" in the appropriate boxes or Pneumoconiosis or Illustrated by the ILO Standard Radiogra	n this form. Classify all appearances described in the ILO
	osed (dark) Improper position Underinflation posed (light) Poor contrast Mottle	Other (please specify)
boxes that apply) Artifacts	Enhanceme	
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s t t t r u r u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO 1	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	Calcification ORL ORL ORL ORL ORL ORL ORL Extent (chest wall; combining profile and face on) Up to 1/4 of lateral ches > 1/2 of lateral ches ORR ORR ORR ORR ORR ORR ORR O	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sect	tions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST,	FIRST MIDDLE) STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

40B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)	,

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi l	ho id ih kl me pa pb pi px ra rp tb						
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes						
at	significant apical pleural thickening	ho	honeycomb lung						
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than						
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected						
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart						
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than						
bu	bulla(e)		one-third of the length of the left heart border						
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines						
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma						
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis						
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continui						
cp	cor pulmonale		with the pleura						
cv	cavity	pi	pleural thickening of an interlobar fissure						
di	marked distortion of an intrathoracic structure	px	pneumothorax						
ef	pleural effusion	ra	rounded atelectasis						
em	emphysema	rp	rheumatoid pneumoconiosis						
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis						
fr	fractured rib(s) (acute or healed)								

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality		Lung Parenchymal Abnormalities □ Azygos lobe □ Density, lung □ Infiltrate □ Nodule, nodular lesion Miscellaneous Abnormalities □ Foreign body □ Post-surgical changes/sternal wire □ Cyst Vascular Disorders □ Aorta, anomaly of □ Vascular abnormality	
Should worker see personal physician because of findings? OTHER COMMENTS	YES	Date Physician or Worker notified? (mm-dd-yyy	y)

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								Na	ational Ir	nstitute	rs' Health for Occu	upationa	al Safe	ety and F					H (M)				
Ful	l SSN	is opti	onal,	last 4 (digits ar	e requ	ired.	_	10	Mo	llowdale rgantow	n, WV 2	26505			I T	FACIL	ITY N	umber	- Unit	Num	ber T	7
E X .	AMIN	IEE'S N	Name :	(Last,	First M	(I)				F	FAX: 304	⊦-285-60)58			L				_ -[
4()C -	NIO	SH	Sylla	abus .	Ans	wer l	Key										OF RE	EADING	G]			
															s on this ographs.								
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	_1		3	U/R		Unde	erexpose	ed (light))	Poor	contrast			Mottle			Other	(please	e specif	ỳ)			
		f not Grad exes that a		ark all		Artifa	acts			Poor	processi	ng		Excessiv Enhance	_								
	2A.	ANY	CLAS	SSIFIA	ABLE PA	AREN	СНҮМ	IAL AB	NORM	ALITI	ES?				YES	s 🔀		nplete Se and 2C	ections	NO		Proceed Section	
	2B.	SMA	_	PACIT					b. ZONES	3	c.	PROFUSI			2C.	LAR	GE OP	PACITI	ŒS				
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	3A.	ANY	CLAS	SSIFIA	ABLE PI	LEUR	AL AB	NORM	ALITIE	is?					YES		Com 3B,	mplete Se 3C	ections	NO	$\overline{\mathbb{X}}$	Proceed Section 4	
_	3B.	PLEU	JRAL	PLAÇ	-	(mark s		ification,	extent, an			"	. 16			Widt	I. Gu nu	ofile only	1				
		Chest wa	all profile	0	Site R L	ן ר	Calcific O R	cation		in pro	t (chest wo ofile and fo	ace on)				(3mn	· .	um width	v) h require	d)			
			profile ce on		R L	 	O R			1/4 to	o 1/4 of lat o 1/2 of lat	teral ches	st wall=	= 2		5 to 3	10 mm =	= b					
		Diaphra		0	RL	 	O R	╡		0	> 1/2 of lat		o L	= 3		0	10 mm =	= C	0	L			
		Other s	ite(s)	O	R L	זַּ נַֿ	O R	t L		1	2 3] [1 2	2 3		a	b	c	a	b	2		
	3C.	COS	ГОРН	RENI	C ANG	LE OF	SLITEI	RATIO	N	R		oceed to ction 3D	N	Ю [Procee	d to Sec	tion 4A						
	3D.	DIFF	USE I	PLEUI	RAL TH	IICKF	ENING		ite, calcifi and width)			in pro	ofile an	nd face on			(3n		profile on mum wid		ired)		
		Chest w	val]		Site			Calc	cification			1/4 t	to 1/2 c	of lateral c	chest wall	= 2	5 to	o 10 mm	a = b				
			profile	O	R L	1		O	R L]		O R	> 1/2 c	of lateral o	chest wall	= 3	0	> 10 mm	1 = c	O	L		
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	4A.	ANY	отн	ER AB	BNORM	ALIT	IES?					YES	C	Complete S	Sections 4E	3-E and :	5.	NO	X	Comple	te Secti	on 5.	
	5.	NIOS	SH Re	ader II	D						RF	ADER'	'S IN	ITIALS	;	DA	TE OF	READ	ING (m	ım-dd-	уууу)		
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	(Lea	ave ID N	umber l	blank if	you are n	ot a NI	OSH A o	or B Read	er)	—	•												-
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	ST	REET AI	DDRES	S					C!	ITY						S	TATE		ZII	P CODI	2		

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

40C - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY	١
4D.	OTHER	O I WIDON	ഹ ധാവ	JULATURI	,

	aa	at	ax	bu	ca	cg	cn	co	ср	cv	dı	ef	em	es	fr	h	11	ho	ıd	ıh	kl	me	pa	pb	рı	px	ra	rp	tb	
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aa		ather	oscle	rotic a	orta										ŀ	ni		eı	ılarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympł	node	S
at		signi	ficant	apica	l pleu	ral th	icken	ing							ŀ	10		h	oneyc	omb l	lung							• •		
ax		coale	scen	e of s	mall o	pacit	ties - '	with 1	nargi	ns of	the sr	nall o	paci	ies	i	d		il	l-defii	ned di	iaphra	ıgm t	order	- sho	ould b	e rec	orded	only	if mo	re than
		rema	ining	visibl	e, wh	ereas	a larg	ge opa	acity (demoi	ıstrat	es a						O	ne-thi	rd of	one h	emid	iaphra	agm i	s affe	cted				
		homo	ogene	ous or	oaque	appe	aranc	e - m	ay be	recor	ded e	ither	in the	e	i	h		il	l-defii	ned h	eart b	order	- sho	uld b	e reco	orded	only	if the	lengtl	n of the heart
		prese	ence o	r in th	e abs	ence (of lar	ge op	acitie	s								b	order	affect	ed, w	hethe	er on t	the rig	ght or	on tl	ne left	side,	is mo	re than
bu		bulla	(e)															O	ne-thi	rd of	the le	ngth	of the	left l	neart l	borde	er			
ca		cance	er, tho	oracic	malig	nanci	ies ex	cludi	ng me	esothe	lioma	a			ŀ	d		se	eptal (Kerle	y) lin	es								
cg		calci	fied n	on-pn	eumo	conio	otic no	dules	s (e.g.	granı	ıloma	a) or	nodes	S	1	ne		m	esoth	eliom	ıa									
cn		calci	ficatio	on in s	mall	pneur	nocor	niotic	opac	ities					I	oa		p]	plate atelectasis											
co		abno	rmali	ty of c	ardia	c size	or sh	ape							I	b		pa	parenchymal bands - significant parenchymal fibrotic stands in continuit							in continuity				
cp		cor p	ulmo	nale														with the pleura												
cv		cavit	y												I	oi		pleural thickening of an interlobar fissure												
di		mark	ed di	stortio	n of a	ın intı	rathor	acic s	structi	ıre					I	X		pı	neumo	othora	ax									
ef		pleur	al eff	usion											r	a		rc	ounde	d atel	ectasi	S								
em		emph	iysen	ıa											r	p		rh	neuma	atoid p	neun	ocor	niosis							
es		eggsl	hell c	alcific	ation	of hil	ar or	media	astina	l lymj	ph no	des			t	b		tu	ibercu	ılosis										
fr		fracti	ured 1	ib(s) (acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	☐Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	TION
	FEDERAL MINE SAFETY AND HEALTH ACT OF THE PROPERTY OF HEALTH AND HUMAN SELECTION OF THE PROPERTY OF THE PROPER	RVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVER Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Hea 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
40D - NIOSH Syllabus Answe	r Key	TYPE OF READING A B F F
	gle radiograph by placing an "x" in the appropriate boxes of Pneumoconiosis or Illustrated by the ILO Standard Radiogr	n this form. Classify all appearances described in the ILO
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhanceme	Other (please specify) Edge ent
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY D S T U T U T U T U	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C B C C C D C D D D D D D D D
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL ORL 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a st wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sect	tions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST,	FIRST MIDDLE) STATE ZIP CODE

40D - NIOSH Syllabus Answer Key

4B.	OTHER SYMBOLS	(OBLIGATORY))
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	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		
4C. N	MARK ALL BOXES THAT APPLY: (Use of this list is inter	nded to re	duce handwritten comments and is optional)
	Abnormalities of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		· ·
			☐ Azygos lobe

Hiatal hernia		☐Azygos lobe
Airway Disorders		□Density, lung □Infiltrate
☐ Bronchovascular markings, heavy or	increased	⊠ Nodule, nodular lesion
☐ Hyperinflation		Miscellaneous Abnormalities
Bony Abnormalities		☐ Foreign body
☐Bony chest cage abnormality		☑ Post-surgical changes/sternal wire
☐Fracture, healed (non-rib)		□Cyst
☐Fracture, not healed (non-rib)		Vascular Disorders
□ Scoliosis		☐ Aorta, anomaly of
☐Vertebral column abnormality		☐ Vascular abnormality
		Date Physician or Worker notified? (mm-dd-yyyy
4E. Should worker see personal physician l	pecause of findings? Y	YES NO

4D. OTHER COMMENTS

1 cm nodular density noted in the right base over 4th anterior rib. Correlate clinically.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIO	GRAPH CLASSIF	ICATION		
	DEPARTMENT OF	AFETY AND HEALTH A HEALTH AND HUMAN	N SERVICES		
EXAMINEE'S Social Security Number	Coal Worke National Institute 1095 Wi	EASE CONTROL & PR rs' Health Surveillance Progre for Occupational Safety an illowdale Road, MS LB208	ram d Health	OMB No.: 0920-0020 CDC/NIOSH (M) 2.: CILITY Number - U	8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)		organtown, WV 26505 FAX: 304-285-6058			-
41A - NIOSH Syllabus Answe	er Key		TY A	PE OF READING B F	
Note: Please record your interpretation of a sir International Classification of Radiographs of				ssify all appearances	
1. IMAGE QUALITY Overexp	oosed (dark) Impi	roper position Under	rinflation	Scapula Overlay	
	eposed (light) Poor	contrast Mottle	e C	Other (please specify)	
(If not Grade 1, mark all boxes that apply) Artifacts	Poor Poor		ssive Edge ncement		
2A. ANY CLASSIFIABLE PARENCH	IYMAL ABNORMALITI	ES?	YES	Complete Sections 2B and 2C	NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE	b. ZONES	c. PROFUSION 0/- 0/0 0/1	2C. LARGE	OPACITIES	
PRIMARY SECONDARY P S P S Q t Q t T U T U	R L UPPER MIDDLE LOWER	1/0 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+	SIZE (O A B C	Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?		YES	Complete Sections 3B, 3C	NO Proceed to Section 4A
	In pro- Up to	to (chest wall; combined for offile and face on) o 1/4 of lateral chest wall = 1 o 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 R O L 2 3 1 2 3	(3mm m 3 to 5 t 5 to 10 t > 10	in profile only) ininimum width required) mm = a mm = b mm = c R] [c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R	L Proceed to Section 3D NO	Proceed to Section	1 4A	
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; in profile and face Up to 1/4 of later 1/4 to 1/2 of later > 1/2 of later R 1 2 3	on) al chest wall = 1	Width (in profile only) (3mm minimum width n 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R a b c	O L a b c
4A. ANY OTHER ABNORMALITIES	5?	YES Comple	te Sections 4B-E and 5.	NO X Con	nplete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	H A or B Reader)	READER'S INITIA	1	OF READING (mm-	
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, FIRST MIDDLE		ODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

41A - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH	CLASSIFICATION	
	FEDERAL MINE SAFETY AN DEPARTMENT OF HEALTH	AND HUMAN SERVICES	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE COI Coal Workers' Health St National Institute for Occupa 1095 Willowdale Ro Morgantown, V	urveillance Program tional Safety and Health oad, MS LB208	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	d. Morgantown, v FAX: 304-28		
41B - NIOSH Syllabus Answe	r Key		TYPE OF READING $A \square B \square F \square$
Note: Please record your interpretation of a sir International Classification of Radiographs of			n. Classify all appearances described in the ILO
1. IMAGE QUALITY Overexp	osed (dark) Improper position	on Underinflation	Scapula Overlay
	posed (light) Poor contrast	Mottle	Other (please specify)
(If not Grade 1, mark all boxes that apply) Artifacts	Poor processing	Excessive Edge Enhancement	
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES	Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S Q t Q t U \ U U	b. ZONES R L UPPER	DEUSION 2C. LA 0/0 1/1 1/2 2/2 2/3 3/3 3/+	A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES	Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) cification R L Up to 1/4 of lateral 1/4 to 1/2 of latera > 1/2 of latera O R L R L 1 2 3	on) (3 chest wall = 1 chest wall = 2 chest wall = 3 O L	idth (in profile only) imm minimum width required) is to 5 mm = a to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Procees Section	NIO I Decond to 6	Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L		Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 R O L 2 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
4A. ANY OTHER ABNORMALITIES	? YE	Complete Sections 4B-E at	nd 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH		DER'S INITIALS E	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PI	RINTED NAME (LAST, FIRST MII	DDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

41B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY	١
4D.	OTHER	O I WIDON	ഹ ധാവ	JULATURI	,

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and 1 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)		TYPE OF READING
	gle radiograph by placing an "x" in the appropriate boxe	A B F F Case on this form. Classify all appearances described in the ILO dographs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhance	Other (please specify) ve Edge ement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PS PS Q t	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) chest wall = 1 chest wall = 2 chest wall = 3
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [I A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

41C - NIOSH Syllabus Answer Key

4R	OTHER	SYMBOL	S (OBI	JGATORY)

	aa	at	ax	bu	ca	cg	cn	co	ср	cv	aı	eī	em	es	Ir	1	nı	no	10	ın	KI	me	pa	рb	рı	px	ra	rp	το	
][
aa		ather	osclei	rotic a	orta										ł	ni		e	nlarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympl	ı node	es
at		signi	ficant	apica	ıl pleu	ıral th	icken	ing							ŀ	10		h	oneyo	omb	lung									
ax		coale	scenc	e of s	mall o	opaci	ties -	with	margi	ins of	the sr	nall	opaci	ties	i	d		i	ll-defi	ned d	iaphra	agm t	ordei	- sho	ould b	e rec	orded	only	if mo	re than
		rema	ining	visibl	e, wh	ereas	a larg	ge o	pacity	demoi	nstrat	es a						0	ne-thi	rd of	one h	emid	iaphra	agm i	s affe	cted		·		
		homo	gene	ous o	paque	appe	aranc	e - 1	nay be	recor	ded e	ither	in th	e	i	h											only	if the	lengt	h of the heart
		prese	nce o	r in th	ie abs	ence	of lar	ge o	pacitie	es								b	order	affect	ted, w	hethe	er on	the rig	ght or	on tl	ne lef	side,	is mo	ore than
bu		bulla	(e)					-	_									0	ne-thi	rd of	the le	ngth	of the	left l	- neart 1	borde	er			
ca		cance	er, the	oracic	malig	gnanc	ies ex	cluc	ling m	esothe	lioma	ı			1	d		s	eptal (Kerle	y) lin	ies								
cg		calci	fied n	on-pn	eumo	conic	otic no	odul	es (e.g	. granı	uloma	a) or	node	S	1	ne		n	nesoth	elion	ia									
cn		calci	ficatio	on in s	small	pneui	moco	nioti	c opac	ities					Ī	oa		р	olate at	telecta	asis									
co		abno	rmalit	ty of c	ardia	c size	or sh	ape							Ī	b		p	arencl	hymal	band	ls - si	gnific	ant p	arenc	hyma	al fibr	otic s	tands	in continuity
cp		cor p	ulmoi	nale														V	vith th	e plet	ıra									
cv		cavit	y												Ī	oi		р	leural	thick	ening	of ar	n inter	rlobar	fissu	ire				
di		mark	ed dis	stortio	n of a	an inti	rathor	acio	struct	ure						X		p	neum	othora	ax									
ef		pleur	al eff	usion											r	a		r	ounde	d atel	ectasi	S								
em		emph	ysem	ıa											r	р		r	heuma	atoid p	oneun	nocor	niosis							
es		eggsl	nell ca	alcific	ation	of hil	lar or	med	liastina	al lym	ph no	des				b		t	ubercu	ılosis										
fr		fracti	ired r	ib(s) ((acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and F 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
41D - NIOSH Syllabus Answe	er Kev	TYPE OF READING
Note: Please record your interpretation of a sin	gle radiograph by placing an "x" in the appropriate boxes	A B F F Some son this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhance	Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PS PS q t q t u \ u \ u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a 2hest wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete S	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA:	ST, FIRST MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

41D - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	☐Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PRE Coal Workers' Health Surveillance Prograt National Institute for Occupational Safety and 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)		TYPE OF READING
42A - NIOSH Syllabus Answe		$A \square B \bigotimes F \square$
		es on this form. Classify all appearances described in the ILO iographs. Use symbols and record comments as appropriate.
	posed (dark) Improper position Undering posed (light) Poor contrast Mottle	Other (please specify)
boxes that apply) Artifacts	Poor processing Excessing Enhance	ve Edge ement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t r u r u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) chest wall = 1 chest wall = 2 chest wall = 3 > 10 mm = c > 10 mm = c
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIAL	DATE OF READING (mm-dd-yyyy) 0 3 - 1 3 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

42A - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (OF	BLIGATORY)
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	aa	at	ax	bu	ca	cg	cn	co	cp	cv	di	ef	em	es	fr	hi	ho	id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
aa		ather	oscler	otic a	orta										hi		e	nlarge	ement	of no	on-cal	cified	l hilar	or m	nedias	tinal l	lymph	node	s
at		signif	ficant	apica	l pleu	ıral th	icken	ing							ho)	h	oneyo	comb	lung							-		
ax		coale	scenc	e of s	mall o	opaci	ties - v	vith m	nargii	ns of	the sn	nall c	paciti	ies	id		i	ll-defi	ined d	iaphr	agm l	orde	r - sho	uld t	e reco	orded	only	if mo	re than
		remai	ining	visibl	e, wh	ereas	a larg	e opa	city c	lemo	nstrate	es a					O	ne-thi	ird of	one h	emid	iaphra	agm is	affe	ected		-		
		homo	gene	ous or	aque	appe	arance	e - ma	y be	recor	ded e	ither	in the		ih		i	ll-defi	ined h	eart b	order	- sho	uld be	e reco	orded	only	if the	lengtl	h of the heart
		prese	nce of	r in th	e abs	ence	of larg	e opa	cities	S							b	order	affect	ted, w	vheth	er on	the rig	tht o	r on th	e left	side,	is mo	ore than
bu		bulla	(e)														O	ne-thi	ird of	the le	ength	of the	left h	eart	borde	r			
ca		cance	er, tho	racic	malig	gnanc	ies ex	cludin	g me	sothe	elioma	ι			kl		S	eptal ((Kerle	ey) lir	nes								
cg		calcif	fied no	on-pn	eumo	conic	otic no	dules	(e.g.	gran	uloma	or ı	nodes		m	e	n	nesoth	nelion	ıa									
cn		calcif	ficatio	n in s	mall	pneui	mocon	iotic o	opaci	ties					pa	ı	p	late a	telecta	asis									
co		abnor	rmalit	y of c	ardia	c size	or sh	ape							pb)	p	arenc	hyma	l band	ds - si	gnific	ant pa	arenc	chyma	l fibr	otic st	ands i	in continuity
ср		cor p	ulmor	nale													V	vith th	ie plei	ıra									
cv		cavity	y												pi		p	leural	l thick	ening	g of a	n inte	rlobar	fissu	ıre				
di		mark	ed dis	tortio	n of a	ın inti	rathora	acic st	ructu	ıre					px		p	neum	othora	ax									
ef		pleur	al effu	ision											ra		r	ounde	ed atel	ectas	is								
em		emph	ysem	a											rp		r	heuma	atoid _J	pneur	nocoi	niosis							
es		eggsh	nell ca	lcific	ation	of hil	lar or 1	nedia	stina	l lym	ph no	des			tb		t	ubercı	ulosis										
fr		fractu	ired ri	b(s) (acute	or he	ealed)																						

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOG	RAPH CLASSIFICA	TION
	DEPARTMENT OF HI	ETY AND HEALTH ACT EALTH AND HUMAN SE	RVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	Coal Workers' National Institute fo 1095 Willo	ASE CONTROL & PREVE Health Surveillance Program or Occupational Safety and Head bowdale Road, MS LB208 (antown, WV 26505 X: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)	rA	.A. 304-283-0038	
42B - NIOSH Syllabus Answe	er Key		TYPE OF READING A B F
			n this form. Classify all appearances described in the ILO aphs. Use symbols and record comments as appropriate.
1. IMAGE QUALITY Overexp	osed (dark) Improp	per position Underinflat	ion Scapula Overlay
(If not Grade 1, mark all Underex	posed (light) Poor co		Other (please specify)
boxes that apply) Artifacts	Poor p	rocessing Excessive Enhancem	~
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES	S?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P T T U T U	b. ZONES R L UPPER MIDDLE LOWER	c. PROFUSION 0/- 0/0 0/1 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?		YES Complete Sections NO Proceed to Section 4A
	R L in profit Up to 1 1/4 to 1 > 1	chest wall; combined for le and face on) /4 of lateral chest wall = 1 /2 of lateral chest wall = 2 /2 of lateral chest wall = 3 R O L 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R I	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combin profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral che > 1/2 of lateral che OR OR 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	?	YES Complete Sec	tions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	H A or B Reader)	READER'S INITIALS	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST	STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

42B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)

a	a at ax bu ca cg cn co cp cv di ef em es	fr hi l	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	☐Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and H 1095 Willowdale Road, MS LB208 Morgantown, WV 26505	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058	
42C - NIOSH Syllabus Answe	er Key	TYPE OF READING A B F
		s on this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
	posed (dark) Improper position Undering posed (light) Poor contrast Mottle Poor processing Excessive Enhance	Other (please specify) ve Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p p p	b. ZONES R L UPPER MIDDLE LOWER D. PROFUSION 0/- 0/0 0/1 1/0 1/2 2/1 2/2 2/3 3/2 3/3 3/+	2C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R O L Calcification R L 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 4	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C B C C C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLIT	R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENING Site Chest wall In profile O R L Face on O R L	Calcification ORL ORL ORL ORL ORL ORL ORL Extent (chest wall; coin profile and face on Up to 1/4 of lateral of 1/4 to 1/2 of lateral of 1/	(3mm minimum width required) 3 to 5 mm = a chest wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete S	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 3 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	STATE ZIP CODE

EXAMINEE'S Name (Last, Fi	rst MII)
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42C - NIOSH Syllabus Answer Key

4D	OTHED	CAMDOLC	(OBLIGATORY)	
4B.	OTHER	2 LIMBOL2	(UBLICIA LUKY)	

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation	Lung Parenchymal Abnormalities □ Azygos lobe □ Density, lung □ Infiltrate □ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities □ Bony chest cage abnormality □ Fracture, healed (non-rib) □ Fracture, not healed (non-rib) □ Scoliosis □ Vertebral column abnormality	☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)
4E. Should worker see personal physician because of findings? 4D. OTHER COMMENTS	YES NO

Note that this image is the s/s 1/1 ILO standard.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058
42D - NIOSH Syllabus Answe	er Key
	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO Pneumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.
	osed (dark)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q x q x r u r u	C. PROFUSION C. PROFUSION O/- O/0 O/1 O/- O/0 O/1 O/- O/-
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) Cification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3
3C. COSTOPHRENIC ANGLE OBLI	FERATION R L Proceed to Section 3D NO Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combined for in profile and face on) Calcification ORL ORL ORL Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 ORR ORR ORR ORR ORR ORR ORR O
4A. ANY OTHER ABNORMALITIES	? YES Complete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	A or B Reader) READER'S INITIALS DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE

EXAMINEE'S Name (Last, First N

42D - NIOSH Syllabus Answer Key

4B.	OTHER	SVMROL	S (OBLIGATORY)
4D.	OTHER	O LIVIDUAL	3 WOLLKIA LUK I I

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation	Lung Parenchymal Abnormalities □ Azygos lobe □ Density, lung □ Infiltrate □ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities □ Bony chest cage abnormality □ Fracture, healed (non-rib) □ Fracture, not healed (non-rib) □ Scoliosis □ Vertebral column abnormality	☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)
4E. Should worker see personal physician because of findings? 4D. OTHER COMMENTS	YES NO

Note that this image is the t/t 1/1 ILO standard.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and H 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
EXAMINEE'S Name (Last, First MI)		TYPE OF READING
43A - NIOSH Syllabus Answe		A B F F Son this form. Classify all appearances described in the ILO
		ographs. Use symbols and record comments as appropriate.
2 3 U/R Underex	osed (dark) Improper position Undering oosed (light) Poor contrast Mottle	Other (please specify)
(If not Grade 1, mark all boxes that apply) Artifacts	Poor processing Excessiv	
2A. ANY CLASSIFIABLE PARENCH		YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY D S D T U T U T U	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile Face on O R L	Calcification ORL ORL R Extent (chest wall; coin profile and face on Up to 1/4 of lateral of 1/4 to 1/2 of lateral of R ORL ORL ORL ORR ORR ORR ORR O	(3mm minimum width required) 2
4A. ANY OTHER ABNORMALITIES	? YES Complete S	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 3 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

43A - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOL	S (OBI	JGATORY	١
4D.	OTHER	O I WIDON	ഹ ധാവ	JULATURI	,

	aa	at	ax	bu	ca	cg	cn	co	ср	cv	dı	ef	em	es	fr	h	11	ho	ıd	ıh	kl	me	pa	pb	рı	px	ra	rp	tb	
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aa		ather	oscle	rotic a	orta										ŀ	ni		eı	ılarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympł	node	S
at		signi	ficant	apica	l pleu	ral th	icken	ing							ŀ	10		h	oneyc	omb l	lung							• •		
ax		coale	scen	e of s	mall o	pacit	ties - '	with 1	nargi	ns of	the sr	nall o	paci	ies	i	d		il	l-defii	ned di	iaphra	ıgm t	order	- sho	ould b	e rec	orded	only	if mo	re than
		rema	ining	visibl	e, wh	ereas	a larg	ge opa	acity (demoi	ıstrat	es a						O	ne-thi	rd of	one h	emid	iaphra	agm i	s affe	cted				
		homo	ogene	ous or	oaque	appe	aranc	e - m	ay be	recor	ded e	ither	in the	e	i	h		il	l-defii	ned h	eart b	order	- sho	uld b	e reco	orded	only	if the	lengtl	n of the heart
		prese	ence o	r in th	e abs	ence (of lar	ge op	acitie	s								b	order	affect	ed, w	hethe	er on t	the rig	ght or	on tl	ne left	side,	is mo	re than
bu		bulla	(e)															O	ne-thi	rd of	the le	ngth	of the	left l	neart l	borde	er			
ca		cance	er, tho	oracic	malig	nanci	ies ex	cludi	ng me	esothe	lioma	a			ŀ	d		se	eptal (Kerle	y) lin	es								
cg		calci	fied n	on-pn	eumo	conio	otic no	dules	s (e.g.	granı	ıloma	a) or	nodes	S	1	ne		m	esoth	eliom	ıa									
cn		calci	ficatio	on in s	mall	pneur	nocor	niotic	opac	ities					I	oa		plate atelectasis												
co		abno	rmali	ty of c	ardia	c size	or sh	ape							I	b		pa	parenchymal bands - significant parenchymal fibrotic stands in continuit							in continuity				
cp		cor p	ulmo	nale														with the pleura												
cv		cavit	y												I	oi		pl	leural	thick	ening	of ar	ı intei	rlobar	fissu	re				
di		mark	ed di	stortio	n of a	ın intı	rathor	acic s	structi	ıre					I	X		pı	neumo	othora	ax									
ef		pleur	al eff	usion											r	a		rc	ounde	d atel	ectasi	S								
em		emph	iysen	ıa											r	p		rh	neuma	atoid p	neun	ocor	niosis							
es		eggsl	hell c	alcific	ation	of hil	ar or	media	astina	l lymj	ph no	des			t	b		tu	ibercu	ılosis										
fr		fracti	ured 1	ib(s) (acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	□Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO NO	/ y)
4D.	OTHER COMMENTS		

DA	TE O	F RA	DIOG	RAP	H (n	ıP -dG-	\\\\ <u>)</u>		CHES	ST R	ADI()GR	APH (CLA	SSI	FICA	TIO	N								
			Т				Τ						Y ANI			-	-									
FV	A MIN	MEETS	Coois	l Com	wit	V Numl	nor.						LTH A E CON						OM) NI	0020 (0020				
LΛ	AWIII	NEE S	Socia	Sec	urity	Num	l		╗,				ealth Sur				1.1			3 No.: //NIOS				V. 02/2	2019	
									N		1095 V	Willow	Occupati dale Roa	d, MS	LB20		ılth	F	ACIL	ITY N	umbe	r - U	Jnit N	Numb	er	
Ful	l SSN	I is op	tiona	l, last	4 di	igits ar	e req	uired.			N		town, W 304-285		05			Γ					$_{-}\Gamma$			
EX.	AMIN	NEE'S	S Nam	e (La	st, F	irst M	I)											L								
43	3B -	NIC	DSH	Sy	llal	bus <i>i</i>	Ans	wer	Key										TYPE A	оғ кі в 🔀		NG				
													" in the y the IL)
	1.	IM	AGE (QUAI	LITY		Ove	rexpose	ed (dark) [Im	proper	position		Uno	derinflat	ion			Scapula	a Over	lay				
		1	3	U/	R		Und	erexpo	sed (ligl	nt)	= Po	or cont	rast	$\overline{\times}$	- 1 _{Mo}	ttle			Other	(pleas	e speci	ify)				
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	2A.			-	FIAI	RLE PA	AREN	ICHY	MAL A	RNORI					Enl	hanceme				plete Se	actions				Proceed to	_
	211.								VIIII II								YES	X		nd 2C	cetions	N	40 F		Section 3	
	2B.	SM	IALL a.	OPA(SHAPE						b. ZON	IES		c. PROF	USION	1		2C.	LAR	GE OP	ACIT	IES					
			RIMARY		SEC	ONDARY	7		IDDED	R	L		1/0 1	/ <u> </u>	.]]							_				
			?]]	р				JPPER MIDDLE				2/1 2	/2 2/3]]		S	IZE	XI.	A	В	C		oceed tection 3		
			1 <u></u>	<u>.</u>]	r	l u		L	OWER				3/2 3	/3 3/+]]											
			J L	A CCTI	ETAI		TIT	AT A1	DNODA		TEC9		шц						l a	1			<u> </u>			_
	3A.	AN	I CL.	ASSII	FIAI	OLE FI	LEUR	AL A	BNORN	IALII	ies:						YES	X	3B, 1	iplete Se 3C	ections	N	Ю		roceed to ection 4A	
	3B.		EURA	L PL	_	U ES ite	(mark		cification ication	ı, extent,			st wall; co	omhinea	l for		ı	Width	i (in pro	file only	v)					
		Chest	wall In profil	e O	ב לור	 X	1	O	R	1	in p	profile a	<i>nd face or</i> of lateral c	1)				(3mn	n minimu 5 mm =	ım widt		red)				
			Face on	\equiv		L	וֹן וֹ	0	X L	i	•	4 to 1/2 d	of lateral of	hest wa	all = 2				0 mm =							
		Diap	hragm	С)]	RX	j	0	RX	j	O	ᄀᅜᄀ	or laterary	O	X			O	X		O	X]			
		Othe	er site(s)	×		R L		X	R L		X	2	3	X	2	3		X	b	c	X	b	c			
	3C.	СО	STOE	HRE	NIC	ANG	LE O	BLITE	CRATIC)N	R	L	Proceed Section		NO	\boxtimes	Proceed	to Sect	ion 4A							_
	3D.	DII	FFUSI	E PLE	EUR	AL TH	IICK	ENING	(mark	site, calo		n,		xtent (cl		all; comb	ined for			dth (in p			equire	ed)		_
					2	Site				lcificatio	,		1			teral ches			5 to	to 5 mm o 10 mm	a = b					
			t wall In profi	le C		R L	1		0	R	L			> 1/	2 of la	teral che	st wall =	3	0	> 10 mm	1 = c	Г	0	L		
			Face on	\vdash)]	R L	ן וֹ		O	R	L		1	2 3	3	1	2 3		a	b	c		a	b	c	
	4A.	AN	YOT	HER	ABN	NORM	ALIT	TES?					YES		Com	plete Sec	tions 4B	-E and 5	i.	NO		Com	plete	Section	n 5.	
	5.	NI	OSH I	Reade	r ID	1							READ	ER'S	INIT	IALS		DA	TE OF	READ	ING (1	mm-	dd-y	ууу)		
	Ν	l I	C) 5	3	Н												1	0 -	· 1	5	- 2	2 (0 2	4	
	(Le	ave ID	Numbe	r blan	k if y	ou are n	ot a N	OSH A	or B Rea	nder)																
	L																									
	SIC	GNATU	JRE										PR	NTED	NAMI	E (LAST	FIRST	MIDD	LE)							
1	ST	REET	ADDR	ESS							CITY							S	ГАТЕ	_	Z	IP CO	ODE		_	

EXAMPLE DO M	(T (T' (MT)
EXAMINEE'S Name	(Last, First MII)

43B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

a	a at ax bu ca cg cn co cp cv ai ef em es	ir ni	ı n	no id in ki me pa po pi px ra rp to							
aa	atherosclerotic aorta	hi		enlargement of non-calcified hilar or mediastinal lymph nodes							
at	significant apical pleural thickening	ho		honeycomb lung							
ax	coalescence of small opacities - with margins of the small opacities	id		ill-defined diaphragm border - should be recorded only if more than							
	remaining visible, whereas a large opacity demonstrates a			one-third of one hemidiaphragm is affected							
	homogeneous opaque appearance - may be recorded either in the	ih		ill-defined heart border - should be recorded only if the length of the heart							
	presence or in the absence of large opacities			border affected, whether on the right or on the left side, is more than							
bu	bulla(e)			one-third of the length of the left heart border							
ca	cancer, thoracic malignancies excluding mesothelioma	kl		septal (Kerley) lines							
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me		mesothelioma							
cn	calcification in small pneumoconiotic opacities	pa		plate atelectasis							
co	abnormality of cardiac size or shape	pb		parenchymal bands - significant parenchymal fibrotic stands in continuit							
ср	cor pulmonale			with the pleura							
cv	cavity	pi		pleural thickening of an interlobar fissure							
di	marked distortion of an intrathoracic structure	px		pneumothorax							
ef	pleural effusion	ra		rounded atelectasis							
em	emphysema	rp		rheumatoid pneumoconiosis							
es	eggshell calcification of hilar or mediastinal lymph nodes	tb		tuberculosis							
fr	fractured rib(s) (acute or healed)										
ca cg cn co cp cv di ef em es	bulla(e) cancer, thoracic malignancies excluding mesothelioma calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes calcification in small pneumoconiotic opacities abnormality of cardiac size or shape cor pulmonale cavity marked distortion of an intrathoracic structure pleural effusion emphysema eggshell calcification of hilar or mediastinal lymph nodes	me pa pb pi px ra rp		one-third of the length of the left heart border septal (Kerley) lines mesothelioma plate atelectasis parenchymal bands - significant parenchymal fibrotic stands in cont with the pleura pleural thickening of an interlobar fissure pneumothorax rounded atelectasis rheumatoid pneumoconiosis							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	□Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	TION
	FEDERAL MINE SAFETY AND HEALTH ACT OF DEPARTMENT OF HEALTH AND HUMAN SERV	VICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PREVENT Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
EXAMINEE'S Name (Last, First MI)		TYPE OF READING
	gle radiograph by placing an "x" in the appropriate boxes on to Pneumoconiosis or Illustrated by the ILO Standard Radiograp	
(If not Grade 1, mark all boxes that apply) Underexp Artifacts	osed (dark) Improper position Underinflation cosed (light) Poor contrast Mottle Poor processing Excessive Ed Enhancement	Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q q q q q r r u r u	b. ZONES R L UPPER MIDDLE LOWER B. ZONES C. PROFUSION 0/- 0/0 0/1 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+	C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLIT	FERATION R L Proceed to Section 3D NO Pro	oceed to Section 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combine in profile and face on) Up to 1/4 of lateral chest w Calcification ORL ORL 1 2 3 1 2	(3mm minimum width required) wall = 1
4A. ANY OTHER ABNORMALITIES	? YES Complete Section	ns 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, F	STATE ZIP CODE

43C - NIOSH Syllabus Answer Key

4R	OTHER	SVMROL	S (OBLIGATORY)	
41).	CHILLIAN	O LIVIDOLI		

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
	$oxed{\mathbb{M}}$		
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐Azygos lobe
	☐ Hiatal hernia		☐ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality
	•		Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES	NO NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

Soft tissue density on the right was interpreted as intercostal muscle and not pleural plaque.

DATE	OF	RAI	OIOG	RA	PH (1	mP -d0	G	\)	(CHES	ST F	RAD	IOG	RA	PH (CLA	SS	IFIC	CAT	IO	N									
									Ι	DEPA	RTM	ENT	E SAF	EAL.	ΓH Al	ND I	HUM	IAN S	SERV	/ICE	ES									
EXAM 										٦	C	oal W al Ins		Healt or Occ owdal antov	h Surv	eillar onal S d, MS V 265	nce Property Safety LB2	rograny and	n			C	DC/I		SH (N	M) 2	.8 R	EV. 0		
EXAM	INE	E'S	Nam	e (L	ast,	First I	MI)														L	ODX O	DE C		E A D	DIG.	JL			
43D																						A	В	F RI	[] _F [
													cing an ustrate																	he ILO oriate.
1	1.	IMA	GE (QUA	LIT	Y	<u>7</u> 0	verex	posed	d (dark)	\boxtimes	Improp	er po	sition		Ur	nderin	flatior	1		\geq	S	capula	a Ove	erlay				
	1 (If n	2			J/R		Uı	ndere	xpose	ed (ligl	nt)	\boxtimes	Poor co	ontras	t		M	ottle				Ot	her (pleas	e spe	cify))			
			t apply		c an		Aı	rtifact	.s				Poor p	rocess	sing			xcessi nhanc		_										
2A	•	ANY	CL.	ASS	IFIA	BLE	PARI	ENCI	HYM	IAL A	BNO	RMA	LITIES	S?					`	YES	X		Comp 2B an	lete So d 2C	ection	s	NO			oceed to ction 3A
2B	•			SHA	PE/SIZ	E						ONES		(PROFU	JSION	<u></u>		20		LAR	GE	OPA	CIT	IES					
		p q r	s u	7	p r	s t u	IY]]		MI	PPER DDLE DWER	R X			1 2	/0 \\ /1 \\ 2/2 \\ /2 \\ 3/2 \\	1/2 2 2/3 3 3/4	2 3 +			Sl	IZE	×		A	В	С		Proces Sectio		
3A		ANY	Y CL.	ASS	IFIA	BLE 1	PLEU	JRAI	AB	NORN	MALI	TIES	?						Y	ES	\boxtimes		Comp 3B, 30	lete S	ection	s	NO			ceed to tion 4A
3F	C	hest v Ir Fa Diaph		le [-	PUES Site R X X X X	(ma.		R R	ification tation	n, exter	1	Extent (in profil Up to 1 1/4 to 1	<i>le and j</i> /4 of la /2 of la	face on, iteral cl) nest wa hest w	all = 1 $vall = 2$	2			(3m 3 to 5 to	m mii o 5 m 10 m	nimun m = a m = b nm = c)	, ,		<	С		
30		COS	STOI	PHR	ENI	C AN(JLE	OBL	ITEI	RATIO	ON		R		roceed tection 3		NO	<u> </u>	Pro	ceed	to Sec	ction	4A							
3D		Chest I1		le [O	RAL T Site R I	HIC	KEN	ING	extent,	site, co, and w	ridth)	ntion,	[in L	profile p to 1 /4 to 1	e and] /4 of l !/2 of !	wall; co face or lateral c lateral lateral	ı) chest w chest v	all = vall =	2		(3mm 3 to 5 to	h (in p m mini 5 mm 10 mm 10 mm	imum v n = a n = b			L b] [c	
4A	•	ANY	OT	HE	R AB	NOR	IAL	ITIE	S?						YES	\boxtimes	Cor	mplete	Section	ıs 4B-	E and	5.		NO		Со	mple	te Sec	ction 5	i.
╽	N Leave	I	OSH I)	S	H you are	not a	NIOS	НАс	or B Rea	ader)		7	R	EADE	ER'S	INIT	ΓIALS	S		1		of R					-уууу О		4
S	SIGN	ATU	RE										_	•	PRI	NTED	NAM	ИЕ (LA	ST, FI	RST	MIDI	DLE)	\neg		$\frac{}{}$	$\overline{}$				7
- 5	STRE	EET A	DDR	ESS							—	CIT	Y								_ L	STAT	E	L		ZIP (COD	E	<u>1</u>	

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

43D - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe	
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion	
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body	
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire Cyst	
	☐ Fracture, not healed (non-rib) ☐ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of	
	□Vertebral column abnormality	□ Vascular abnormality	,
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyy YES NO NO	/ y)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOG	RAPH CLASSIFICA	ATION	
	DEPARTMENT OF HI	ETY AND HEALTH ACT EALTH AND HUMAN SE	RVICES	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	Coal Workers' National Institute for 1095 Willo	ASE CONTROL & PREVE Health Surveillance Program or Occupational Safety and He bwdale Road, MS LB208 antown, WV 26505 X: 304-285-6058	OMB No.: 0920-(CDC/NIOSH (M FACILITY Number	2.8 REV. 02/2019 r - Unit Number
45A - NIOSH Syllabus Answe	er Key		TYPE OF READIN	NG □
Note: Please record your interpretation of a sin International Classification of Radiographs of			on this form. Classify all appearan	
(If not Grade 1, mark all boxes that apply) Underex Artifacts	posed (light) Poor co	rocessing Excessive Enhancem	Other (please speci	AO
2A. ANY CLASSIFIABLE PARENCH	IMAL ABNORMALITIES	· · · · · · · · · · · · · · · · · · ·	YES Complete Sections 2B and 2C	NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S Q t Q t U U	b. ZONES R L UPPER MIDDLE LOWER LOWER	c. PROFUSION 0/- 0/0 0/1 1/0 1/1 1/2 2/1 2/2 2/3 3/2 3/+	SIZE O B	Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?		YES Complete Sections 3B, 3C	NO Proceed to Section 4A
	R L in profil Up to 1.	chest wall; combined for e and face on) 4 of lateral chest wall = 1 2 of lateral chest wall = 2 2 of lateral chest wall = 3	Width (in profile only) (3mm minimum width requir 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C a	ed) L b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R I	Proceed to Section 3D NO	Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile Face on O R L	(mark site, calcification, extent, and width) Calcification R L O R L	Extent (chest wall; comin profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral che > 1/2 of lateral che R 1 2 3 1	(3mm minimum w 3 to 5 mm = a 5 to 10 mm = b	
4A. ANY OTHER ABNORMALITIES	?	YES Complete Sec	tions 4B-E and 5.	Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	READER'S INITIALS	DATE OF READING (1	nm-dd-yyyy) - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST		IP CODE

ETT () CT TEELO) T	(*	
EXAMINEE'S Name	(Last Hirst MI)	
12XXXIVIIIVIII B INGIIIC	t Last, I list will	

45A - NIOSH Syllabus Answer Key

4B.	OTHER	CVMROI	S (OBI	JGATORY)
4D.	OTHER	3 I WIDON	ഹ ധാവ	JUATURIT

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi l	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG	(\\\) CHEST RADIOGR	APH CLASSIFICATION	N
	DEPARTMENT OF HEA	TY AND HEALTH ACT OF 191 ALTH AND HUMAN SERVICE	ES
EXAMINEE'S Social Security Number 1985 Full SSN is optional, last 4 digits ar	Coal Workers' H National Institute for 1095 Willow e required. Morgan	SE CONTROL & PREVENTION ealth Surveillance Program Occupational Safety and Health valle Road, MS LB208 httown, WV 26505 : 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First M	I)		TYPE OF READING
45B - NIOSH Syllabus			$A \square B \bigotimes F \square$
			orm. Classify all appearances described in the ILO se symbols and record comments as appropriate.
1. IMAGE QUALITY 2 3 U/R (If not Grade 1, mark all boxes that apply)	Overexposed (dark) Improper Underexposed (light) Poor con Artifacts Poor pro		Other (please specify)
2A. ANY CLASSIFIABLE PA	ARENCHYMAL ABNORMALITIES?		Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t u X u	b. ZONES R L UPPER X X MIDDLE X X LOWER X X	0/- 0/0 0/1	LARGE OPACITIES O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PI	LEURAL ABNORMALITIES?	YES	Complete Sections NO Proceed to Section 4A
3B. PLEURAL PLAQUES Chest wall In profile Face on Oimple Other site(s) R L R L R L	R L in profile a Up to 1/4 1/4 to 1/2	est wall; combined for and face on) of lateral chest wall = 1 of lateral chest wall = 2 of lateral chest wall = 3 L L 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R B C B C C C C C C C C C C
3C. COSTOPHRENIC ANG	LE OBLITERATION L	Proceed to Section 3D NO Proceed	to Section 4A
3D. DIFFUSE PLEURAL TE Site Chest wall In profile Face on R L	(mark site, calcification, extent, and width) Calcification R L R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1/4 to 1/2 of lateral chest wall = > 1/2 of lateral chest wall =	2 5 to 10 mm = b
4A. ANY OTHER ABNORM	ALITIES?	YES Complete Sections 4B-	E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are n	ot a NIOSH A or B Reader)	READER'S INITIALS	DATE OF READING (mm-dd-yyyy)
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, FIRST	MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

45B - NIOSH Syllabus Answer Key

4R	OTHER	SYMBOL	S (OBI	JGATORY)	

	aa at ax bu ca cg cn co cp cv di ef em es f	fr hi h	o id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PREVIOUS Coal Workers' Health Surveillance Program National Institute for Occupational Safety and 1095 Willowdale Road, MS LB208	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	d. Morgantown, WV 26505 FAX: 304-285-6058	_
45C - NIOSH Syllabus Answe	er Key	TYPE OF READING $A \square B \bowtie_F \square$
		es on this form. Classify all appearances described in the ILO lographs. Use symbols and record comments as appropriate.
	posed (dark) Improper position Underin posed (light) Poor contrast Mottle Poor processing Excessi	Other (please specify) ive Edge
2A. ANY CLASSIFIABLE PARENCH	Enhance	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S U t q t U U	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c ORRORE a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) chest wall = 1 chest wall = 2 chest wall = 3 > 10 mm = c > 10 mm = c
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

45C - NIOSH Syllabus Answer Key

4R	OTHER	SVMROI	S (OBLIGATORY)
41).	OTHER		O CODERCIA FOR EL

aa	at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PREVIOUS Coal Workers' Health Surveillance Program National Institute for Occupational Safety and House 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
EXAMINEE'S Name (Last, First MI)		TYPE OF READING
45D - NIOSH Syllabus Answe		A B F Contains a second on this form. Classify all appearances described in the ILO
International Classification of Radiographs of I	Pneumoconiosis or Illustrated by the ILO Standard Radiog	graphs. Use symbols and record comments as appropriate.
1 3 U/R Underexp	posed (dark) Improper position Underinflations Underinflations (light) Poor contrast Mottle	Other (please specify)
boxes that apply) Artifacts	Enhancen	e l
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t u \ \text{u} \ \text{u}	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R L L C R L C R L C R L C R L C R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C A B C C C C C C C C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLIT	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
Site Chest wall In profile Face on O R L	Calcification ORL ORL Extent (chest wall; com in profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral che > 1/2 of lateral che ORL ORL ORL 1 2 3 1	(3mm minimum width required) ast wall = 1 best wall = 2 (3mm minimum width required) a to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Se	ections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAS'	T, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

45D - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (C	OBLIGATORY)
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	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	o id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSII	FICATION
	FEDERAL MINE SAFETY AND HEALTH DEPARTMENT OF HEALTH AND HUMA	AN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PI Coal Workers' Health Surveillance Pro National Institute for Occupational Safety a 1095 Willowdale Road, MS LB20 Morgantown, WV 26505	OMB No.: 0920-0020 ogram
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058	
46A - NIOSH Syllabus Answe	r Key	TYPE OF READING A B F
International Classification of Radiographs of I		boxes on this form. Classify all appearances described in the ILO Radiographs. Use symbols and record comments as appropriate.
	posed (light) Poor contrast Mot Poor processing Exc	eessive Edge
2A. ANY CLASSIFIABLE PARENCH	Enh	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S q t q t u X u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R O L R L 1 2 3 1 2 1 2 3 1 2 1 2 1 2 3 1 2 1 2 3 1 2 1 2 3 1 2 1 2 3 1 2 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 3 3 3 3 3 3 3 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L 3 a b c a b c
3C. COSTOPHRENIC ANGLE OBLIT	R L Proceed to Section 3D NO	Proceed to Section 4A
Site Chest wall In profile Face on O R L	extent, and width) Calcification in profile and fa Up to 1/4 of lat 1/4 to 1/2 of lat	til; combined for tice on) Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O L 1 2 3
4A. ANY OTHER ABNORMALITIES	? YES YES Comp	plete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME CITY	E (LAST, FIRST MIDDLE) STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

46A - NIOSH Syllabus Answer Key

1D	OTHED	CVMDOI	S (OBLIGATORY)
4B.	OTHER	SYMBOL	S (UBLICIA LUK Y)

presence or in the absence of large opacities bu bulla(e) ca cancer, thoracic malignancies excluding mesothelioma cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities co abnormality of cardiac size or shape cy cor pulmonale cv cavity di marked distortion of an intrathoracic structure em emphysema border affected, whether on the right or on the left side, is more than one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the left side, is more than one-third of the length of the left side, is more than one-third of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the length of the left side of the leng	a	ia at ax bu ca cg cn co cp cv di ef em es f	ir hi l	ho id ih kl me pa pb pi px ra rp tb
significant apical pleural thickening ax coalescence of small opacities - with margins of the small opacities id ill-defined diaphragm border - should be recorded only if more than remaining visible, whereas a large opacity demonstrates a homogeneous opaque appearance - may be recorded either in the presence or in the absence of large opacities bulla(e) bulla(e) bulla(e) ca cancer, thoracic malignancies excluding mesothelioma ca calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities pb parenchymal bands - significant parenchymal fibrotic stands in continuity of cardiac size or shape cor pulmonale cv cavity pleural effusion an arked distortion of an intrathoracic structure px pneumothorax ef pleural effusion em emphysema bo honeycomb lung id ill-defined diaphragm border - should be recorded only if more than one-third of one hemidiaphragm is affected ill-defined heart border - should be recorded only if the length of the length of the length of the length of the length or on the left side, is more than one-third of the length of the length of the left heart border one-third of the length of the length of the left heart border septial (Kerley) lines one-third of the length of the lengt				
coalescence of small opacities - with margins of the small opacities id ill-defined diaphragm border - should be recorded only if more than remaining visible, whereas a large opacity demonstrates a homogeneous opaque appearance - may be recorded either in the presence or in the absence of large opacities bulla(e) ca cancer, thoracic malignancies excluding mesothelioma kl septal (Kerley) lines calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes calcification in small pneumoconiotic opacities pa plate atelectasis co abnormality of cardiac size or shape cor pulmonale cor cavity pi pleural thickening of an interlobar fissure figure affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if more than one-third of one hemidiaphragm is affected only if the length of the length	aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
remaining visible, whereas a large opacity demonstrates a homogeneous opaque appearance - may be recorded either in the presence or in the absence of large opacities bulla(e) ca cancer, thoracic malignancies excluding mesothelioma calcification in small pneumoconiotic nodules (e.g. granuloma) or nodes co abnormality of cardiac size or shape cor pulmonale cor cavity pi marked distortion of an intrathoracic structure pm meshysema remaining visible, whereas a large opacity demonstrates a one-third of one hemidiaphragm is affected in ill-defined heart border - should be recorded only if the length of the length or on the left side, is more than one-third of the length of the left heart border one-third of the length of the left heart border septial (Kerley) lines mesothelioma kl septal (Kerley) lines mesothelioma me mesothelioma pa plate atelectasis pa plate atelectasis pa parenchymal bands - significant parenchymal fibrotic stands in continuity with the pleura cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion ra intrathoracic structure pr pneumothorax em emphysema ra rounded atelectasis rp rheumatoid pneumoconiosis	at	significant apical pleural thickening	ho	honeycomb lung
homogeneous opaque appearance - may be recorded either in the presence or in the absence of large opacities bulla(e) ca cancer, thoracic malignancies excluding mesothelioma kl septal (Kerley) lines calcification in small pneumoconiotic nodules (e.g. granuloma) or nodes co abnormality of cardiac size or shape cor pulmonale cor cavity pi marked distortion of an intrathoracic structure pm mesotheliom a marked distortion of an intrathoracic structure pm mesotheliom a ill-defined heart border - should be recorded only if the length of the length of the left side, is more than one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the length of the left side, is more than one-third of the length of the lengt	ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
presence or in the absence of large opacities bu bulla(e) ca cancer, thoracic malignancies excluding mesothelioma cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities co abnormality of cardiac size or shape cy cor pulmonale cv cavity di marked distortion of an intrathoracic structure em emphysema border affected, whether on the right or on the left side, is more than one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left heart border one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the left side, is more than one-third of the length of the left side, is more than one-third of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the left side, is more than one-third of the length of the length of the left side of the leng		remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
bu bulla(e) one-third of the length of the left heart border ca cancer, thoracic malignancies excluding mesothelioma kl septal (Kerley) lines cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities pa plate atelectasis co abnormality of cardiac size or shape cr cor pulmonale cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion em emphysema one-third of the length of the left heart border need the length of the length of the left heart border need the length of the length		homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
ca cancer, thoracic malignancies excluding mesothelioma kl septal (Kerley) lines cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities pa plate atelectasis co abnormality of cardiac size or shape cr cor pulmonale cr cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion em emphysema kl septal (Kerley) lines mesothelioma mesothelioma pa plate atelectasis pb parenchymal bands - significant parenchymal fibrotic stands in continuity with the pleura pi pleural thickening of an interlobar fissure pr pneumothorax ra rounded atelectasis rp rheumatoid pneumoconiosis		presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes cn calcification in small pneumoconiotic opacities pa plate atelectasis co abnormality of cardiac size or shape pb parenchymal bands - significant parenchymal fibrotic stands in continuity with the pleura cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion ra mesonated pleural effusion ra ra rounded atelectasis em emphysema	bu	bulla(e)		one-third of the length of the left heart border
cn calcification in small pneumoconiotic opacities pa plate atelectasis co abnormality of cardiac size or shape pb parenchymal bands - significant parenchymal fibrotic stands in continuity cp cor pulmonale with the pleura cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion ra rounded atelectasis em emphysema rp rheumatoid pneumoconiosis	ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
co abnormality of cardiac size or shape pb parenchymal bands - significant parenchymal fibrotic stands in continuity with the pleura with the pleura vith the pleura pleural thickening of an interlobar fissure produced in marked distortion of an intrathoracic structure px pneumothorax ra rounded atelectasis em emphysema rp rheumatoid pneumoconiosis	cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cp cor pulmonale with the pleura cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion ra rounded atelectasis em emphysema rp rheumatoid pneumoconiosis	cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
cv cavity pi pleural thickening of an interlobar fissure di marked distortion of an intrathoracic structure px pneumothorax ef pleural effusion ra rounded atelectasis em emphysema rp rheumatoid pneumoconiosis	co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
dimarked distortion of an intrathoracic structurepxpneumothoraxefpleural effusionrarounded atelectasisememphysemarprheumatoid pneumoconiosis	cp	cor pulmonale		with the pleura
ef pleural effusion ra rounded atelectasis em emphysema rp rheumatoid pneumoconiosis	cv	cavity	pi	pleural thickening of an interlobar fissure
em emphysema rp rheumatoid pneumoconiosis	di	marked distortion of an intrathoracic structure	px	pneumothorax
	ef	pleural effusion	ra	rounded atelectasis
	em	emphysema	rp	rheumatoid pneumoconiosis
es eggshell calcification of hilar or mediastinal lymph nodes tb tuberculosis	es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr fractured rib(s) (acute or healed)	fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe
	Airway Disorders ☐ Bronchovascular markings, heavy or increased		☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion
	Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities ☐ Foreign body
	☐ Bony chest cage abnormality ☐ Fracture, healed (non-rib) ☐ Fracture, not healed (non-rib)		☑ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders
	Scoliosis Vertebral column abnormality		☐ Aorta, anomaly of ☐ Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES	Date Physician or Worker notified? (mm-dd-yyyy)
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

Status post left upper lobectomy. Post-surgical changes in cervical spine.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIF	ICATION
	FEDERAL MINE SAFETY AND HEALTH A DEPARTMENT OF HEALTH AND HUMAN	N SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PR Coal Workers' Health Surveillance Prog National Institute for Occupational Safety an 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 ram
46B - NIOSH Syllabus Answe	,	$A \square B \boxtimes F \square$ Expression oxes on this form. Classify all appearances described in the ILO
International Classification of Radiographs of	Pneumoconiosis or Illustrated by the ILO Standard Ra	adiographs. Use symbols and record comments as appropriate.
	posed (light) Poor contrast Mottl	e Other (please specify) ssive Edge neement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s t q t r u w u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C B C C C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	extent, and width) in profile and face Up to 1/4 of later Calcification 1/4 to 1/2 of later	(200) $(3 mm minimum width required)al chest wall = 1 (3 \text{mm minimum width required})$
4A. ANY OTHER ABNORMALITIES	? YES X Comple	ete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) STATE ZIP CODE

	-	
EXAMINEE'S Name	(Lact	First MIN
LAAMINEE 5 Name	ı Lası.	1.1121 14111

46B - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	o id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality		Lung Parenchymal Abnormalities □ Azygos lobe □ Density, lung □ Infiltrate □ Nodule, nodular lesion Miscellaneous Abnormalities □ Foreign body □ Post-surgical changes/sternal wire □ Cyst Vascular Disorders □ Aorta, anomaly of □ Vascular abnormality
Should worker see personal physician because of findings?	YES X	Date Physician or Worker notified? (mm-dd-yyyy)

4D. OTHER COMMENTS

The arrow over the right mid lung zone indicates an area of ax. Since the right upper zone opacity could also represent cancer or tuberculosis, these symbols may also be checked, and the "see physician" box checked "yes."

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	ΓΙΟΝ
	FEDERAL MINE SAFETY AND HEALTH ACT C DEPARTMENT OF HEALTH AND HUMAN SER	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVEN Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Heal 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)		TWO OF DE ADDIS
46C - NIOSH Syllabus Answe	er Key	TYPE OF READING A □ B ☑ F □
	gle radiograph by placing an "x" in the appropriate boxes on Pneumoconiosis or Illustrated by the ILO Standard Radiogra	
	posed (dark) Improper position Underinflation posed (light) Poor contrast Mottle Poor processing Excessive Ed	Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	Enhancemer Enhancemer	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t	b. ZONES R L UPPER	SIZE O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR BC CC A BC CC CC CC CC CC CC
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO P	roceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL ORL 1 2 3 1 2	(3mm minimum width required) wall = 1
4A. ANY OTHER ABNORMALITIES	? YES Complete Section	ons 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, I	FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

46C - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	na at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality		Lung Parenchymal Abnormalities Azygos lobe Density, lung Infiltrate Nodule, nodular lesion Miscellaneous Abnormalities Foreign body Post-surgical changes/sternal wire Cyst Vascular Disorders Aorta, anomaly of Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES X	Date Physician or Worker notified? (mm-dd-yyyy)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PRE Coal Workers' Health Surveillance Progra National Institute for Occupational Safety and 1095 Willowdale Road, MS LB208	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	d. Morgantown, WV 26505 FAX: 304-285-6058	-
46D - NIOSH Syllabus Answe	er Key	TYPE OF READING $ A \square B \square F \square $
		es on this form. Classify all appearances described in the ILO iographs. Use symbols and record comments as appropriate.
1 3 U/R Underex	osed (dark) Improper position Undering posed (light) Poor contrast Mottle	Other (please specify)
(If not Grade 1, mark all boxes that apply) Artifacts	Poor processing Excessing Enhance	ive Edge cement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s t x t r u r u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) chest wall = 1 chest wall = 2 chest wall = 3 1 chest wall = 2 1 chest wall = 3 2 chest wall = 3 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIAL A or B Reader)	DATE OF READING (mm-dd-yyyy) 1 0 - 1 5 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

46D - NIOSH Syllabus Answer Key

	4B.	OTHER	SYMBOLS	(OBLIGATORY)	
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nph nodes
ly if more than
he length of the heart
de, is more than
c stands in continuity
1

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality		Lung Parenchymal Abnormalities Azygos lobe Density, lung Infiltrate Nodule, nodular lesion Miscellaneous Abnormalities Foreign body Post-surgical changes/sternal wire Cyst Vascular Disorders Aorta, anomaly of Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES X	Date Physician or Worker notified? (mm-dd-yyyy)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION	ON
	FEDERAL MINE SAFETY AND HEALTH ACT OF 19 DEPARTMENT OF HEALTH AND HUMAN SERVIC	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require	CENTERS FOR DISEASE CONTROL & PREVENTIC Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
XAMINEE'S Name (Last, First MI)		TYPE OF READING
	regle radiograph by placing an "x" in the appropriate boxes on this Pneumoconiosis or Illustrated by the ILO Standard Radiographs.	
1. IMAGE QUALITY Overexp	osed (dark) Improper position Underinflation posed (light) Poor contrast Mottle	Scapula Overlay Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES	S Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t r u r u	b. ZONES R L UPPER	LARGE OPACITIES SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES	Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) lcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O 1 2 1 2 1 2 X	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O D a C a C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO Procee	d to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	extent, and width) Calcification ORL ORL in profile and face on) Up to 1/4 of lateral chest wall= 1/4 to 1/2 of lateral chest wall > 1/2 of lateral chest wall OR ORL ORL	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	YES Complete Sections 4E	B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS H A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST	T MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

47 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

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EX	AMI	NEE'S	Nam	e (Las	st, Fi	rst M	I)										L							Ш
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	1.	IMA	AGE (QUAL	ITY		Ove	expose	d (dark)		Impro	oper posi	tion	U	nderinfl	ation			Scapula	a Overl	lay			
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			rade 1, at apply		11	П	Artif	acts		F	Poor	processii	ng [Excessive	-								
	2A.	AN	Y CL	ASSIF	FIAB	LE PA	REN	CHYM	IAL AB	SNORM	ALITII	ES?			maneer	YES	X		nplete Se and 2C	ections	N	Ю		roceed to ection 3A
	2B.	SM	ALL (ES				b. ZONE	s	c. I	PROFUSIO	N		2C.	LAR	GE OP	ACIT	IES				
		PF	a. S RIMARY	SHAPE/		NDARY				R I	-	0/-	0/0)/1										
		_ [F	S]	p	S			PPER		\leq	1/0		1/2		S	SIZE	0	X[В	C		oceed to	
]	q	t			IDDLE OWER		\leq	2/1		2/3										
		L	r u		X	u			,		<u> </u>	<u> </u>	3/3	3/+										
	3A.	AN	Y CL	ASSII	FIAB	LE PL	EUR	AL AB	NORM	ALITII	ES?					YES		Con 3B,	nplete Se 3C	ections	N	o [>	x ı	oceed to ction 4A
	3B.		EURA	L PL	AQU Sit		mark	site, calc Calcifi	-	extent, a		(chest wa	ll: combi	ned for		1	Width	h (in pro	file only	v)				
		Chest	wall n profil	e O	R	L	ı	O F	R L		in proj	file and fa 1/4 of late	ce on)	-			(3mn	n minimi 5 mm =	ım widt		ed)			
			Face on	O	R	L	i i	O F	R L		1/4 to	1/2 of late	eral chest	wall =	2			0 mm =						
		Diap	hragm	О	R	L	i i	O F	R L		0	R	C	┑┌			О	R		O	L			
		Othe	r site(s)	O	R	L		O F	R L		1	2 3		2	3		a	b	c	a	b	С]	
	3C.	СО	STOP	HRE	NIC .	ANGI	E O	BLITE	RATIO	N	R		ceed to	NO	оП	Proceed	to Sect	ion 4A						
	3D.	DII	FFUSE	E PLE	URA	L TH	ICKI	ENING	(mark s	ite, calcij	fication,		Extent		wall; con l face on)	ibined for				profile of		eanirea	4) ———	
					Si	te			extent,	and width	1)		Up to	1/4 of	lateral ch	est wall = nest wall =		3	to 5 mm	a = a		4	-)	
		Ches	t wall	_		1			Cal	cification	7					nest wall =			> 10 mm		_	-	_	
			In profil	le O		L			0	R L	_) R	$\overline{}$	0	L	٦	0	R		Ļ	<u> </u>		_
_			Face on	U	K	L				K L			2	3	1	2 3		a	b	С	L	a	b	;
	4A.	AN	Y OT	HER .	ABN	ORM	ALIT	IES?				,	YES \	Ca	omplete S	ections 4B	-E and 5	5.	NO		Com	plete S	Section	5.
	5.	NIC	OSH F	Reade	r ID							RE	ADER'S	S INI	TIALS		DA	TE OF	READ	ING (r	nm-	dd-yy	уу)	
	N		C) 5	3	Н											0	3 -	- 1	9	- 2	2 () 2	4
	(Le	ave ID	Numbe	r blank	k if yo	u are no	ot a NI	OSH A	or B Reac	der)		_												
	SIC	SNATU	JRE										PRINTE	D NA	ME (LAS	T, FIRST	MIDD	LE)						
																	Γ					T		
	ST	REET .	ADDRI	ESS							CITY						_ L	ГАТЕ		Z	IP CC)DE		_

EXAMINEE'S Name (Last, First M

48 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu o	ea eg en	co cp	cv di	ef er	n es	fr	hi l	no id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
		$\leq \Box \Box$						\boxtimes												
aa	atherosclerotic aort	a					hi		enlarg	gement	of nor	ı-calc	ified	hilar	or me	edias	tinal l	lymph	ı node	s
at	significant apical p	leural thicke	ening				ho		honey	comb l	ung							-		
ax	coalescence of sma	all opacities	- with margi	ns of the si	nall opac	ities	id		ill-def	ined di	aphra	gm b	order	- sho	uld b	e reco	orded	only	if mor	re than
	remaining visible,	whereas a la	rge opacity	demonstrat	es a				one-th	nird of	one he	midi	aphra	gm is	affec	cted				
	homogeneous opac	ue appearan	ice - may be	recorded e	ither in the	he	ih		ill-def	ined he	eart bo	order -	- shou	uld be	reco	rded	only	if the	length	n of the heart
	presence or in the a	absence of la	irge opacitie	S					borde	r affect	ed, wl	nethe	r on t	he rig	ht or	on th	e left	side,	is mo	re than
bu	bulla(e)								one-th	nird of	the ler	igth c	of the	left h	eart b	orde	r			
ca	cancer, thoracic ma	alignancies e	excluding me	esotheliom	a		kl		septal	(Kerle	y) line	es								
cg	calcified non-pneu	moconiotic 1	nodules (e.g.	granulom	a) or nod	es	me	•	mesot	heliom	a									
cn	calcification in sma	all pneumoc	oniotic opac	ities			pa		plate a	atelecta	ısis									
co	abnormality of card	diac size or s	shape				pb		paren	chymal	band	s - sig	gnifica	ant pa	arencl	hyma	l fibr	otic st	ands i	in continuity
ср	cor pulmonale								with the	he pleu	ıra									
cv	cavity						pi		pleura	ıl thick	ening	of an	inter	lobar	fissu	re				
di	marked distortion of	of an intratho	oracic struct	ıre			px		pneun	nothora	ıx									
ef	pleural effusion						ra		round	ed atel	ectasis	S								
em	emphysema						rp		rheum	natoid p	neum	oconi	iosis							
es	eggshell calcificati	on of hilar o	r mediastina	l lymph no	odes		tb		tuberc	culosis										
fr	fractured rib(s) (ac	ute or healed	i)																	

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐ Azygos lobe
	Hiatal hernia		Density, lung
	Airway Disorders		☐Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□ Cvst
	Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		☐ Aorta, anomaly of
			☐ Vascular abnormality
	☐ Vertebral column abnormality		Ž
			Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

Note size A opacity behind R diaphragm. Since this density could also represent malignancy, symbol ca may be checked.

DA	TE O	F RADIO)GR	APH (m	P -dG	(////	C	CHES	T RA	ADIC)GRA	APH C	CLA	SSIF	FICA'	TION	1								
							I					Y AND LTH AN													
EX	AMIN	NEE'S So	cial S	Security	Numl	oer			ERS FO	OR DI	SEASI	E CONT	ROL	& PR	REVEN			OME	3 No.: (0920-0	020				
								Na	ational	Institu	te for C	alth Surv Occupatio	nal Sa	afety ar	nd Heal	th		CDC	/NIOS	H (M)	2.8	REV	. 02/20)19	
Ful	l SSN	is optio	nal, l	ast 4 dig	gits ar	e requ	ıired.	_			lorgant	lale Road own, WV	2650		8		F	ACIL1	ITY N	umber	- Uı	nit N	umbei	· 	
EX.	AMIN	IEE'S Na	ıme (Last, Fi	rst M	I)					FAX:	304-285-	6058								_]-		<u> </u>		
		IIOSH					er Ke	Э у]								OF RE	EADIN	G T				
		lease reco																lassify	all app	earanc)
	1.	IMAG	E QU	ALITY	X	Over	exposed	d (dark)		Im	proper j	osition		Unde	erinflati	on			Scapula	ı Overla	ay				
	1	. 2	X	U/R	$\overline{\sqcap}$	Unde	erexpos	ed (light	t) _	Po	or contr	ast		Mott	ile			Other	(please	e specif	fy)				
	,	not Grade exes that ap	,	rk all		Artif	acts		Ē	Po	or proce	essing			essive E										
	2A.	ANY (CLAS	SIFIAB	LE PA	AREN	СНҮМ	IAL AB	BNORN	MALIT	TIES?					YES			plete Se and 2C	ections	N	0 2		oceed to	
	2B.	SMAL	_	PACITII APE/SIZE	ES				b. ZON	ES		c. PROFU		1	1	2C. I	LAR	E OP	ACITI	ES					
		PRIMA		SECO	NDARY	7	111	PPER	R	L		1/0 1/1	0 0/1]]			Г				_	_			
		q	t	q	t			IDDLE	H	╡		2/1 2/2	2 2/3]]		SIZ	ZE	O	A	В			ceed to ction 3A		
		r	u	r	u		LC	OWER	낢	\dashv		3/2 3/3	3 3/+	<u>.</u>											
	3A.	ANY (CLAS	SIFIAB	LE PI	LEUR	AL AB	NORM	IALITI	IES?						YES		Com 3B,	iplete Se	ections	NO		x ı	oceed to	_
	3B.			PLAQU Sit		(mark s	ite, calc	ification,	extent,			t wall; coi	mhinaa	l fou		1	Width	(in pro	file only	,)					_
		Chest wal		OR	L	1 I	O R	L		in p	rofile an	<i>d face on)</i> f lateral ch		5			(3mm		ım widtl	n require	ed)				
		Face		O R	L	i l i	O R	L			to 1/2 o	f lateral cl f lateral cl	nest wa	all = 2				0 mm = 0 mm =							
		Diaphrag	gm	O R	. L	j į	O R	L		O	\neg		0	L			O	R		O	L				
		Other sit	e(s)	OR	L] [O R	L		1	2	3	1	2	3		a	b	c	a	b	c	<u> </u>		
	3C.	COST	ОРН	RENIC	ANGI	LE OI	BLITE	RATIO	N	R	L	Proceed t Section 3		NO	F	roceed t	o Sect	on 4A							
	3D.	DIFFU	JSE I	LEURA	AL TH	IICKI 	ENING	(site, calc and widi	5	n,	in j	profile	and fac				(3n	ım minii	<i>rofile on</i> mum wic		quirec	i)		
		Chest wa	11	Si	ite			Calo	cificatio	n			4 to 1/	2 of late	eral chest eral ches	t wall = 2	2	5 to	to 5 mm 10 mm	= b					
			ofile	O R	L	1		O	R	L		0	> 1/ R	2 of late	o I	<u>t w</u> all = 3	3	0	> 10 mm	1 = C		0 1	L		
		Face	on	O R	L	<u> </u>		0	R	L		1	2 3		1	2 3]	a	b	c	Ē	a	b c		
	4A.	ANY (тн	ER ABN	ORM	ALIT	IES?					YES	X	Compl	lete Secti	ons 4B-I	E and 5		NO		Comp	olete S	Section	5.	
	5.	NIOSI	I Rea	ader ID								READE	R'S	INITIA	ALS		DAT	E OF	READ	ING (n	ım-d	ld-yy	yy)		
	Ν	1	0	S	Н												0	3 -	· 1	9 -	- 2	2 () 2	4	
	(Lea	ave ID Nu	nber b	olank if yo	u are n	ot a NI	OSH A	or B Read	der)																
	SIG	NATURE										PRIN	NTED :	NAME	(LAST,	FIRST	MIDDI	LE)						¬	
	STI	REET ADI	ORES	S						CITY							ST	ATE		ZI	P CO	DE			

EXAMINEE'S Name (Last, First M

49 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	di	ef	em	es	fr	hi	h	o id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
aa		athero	scler	otic a	orta										hi			enlarg	gement	of no	n-ca	lcified	l hila	or m	edias	tinal	lymp	h nod	es
at		signif	icant	apica	l pleu	ıral th	icken	ing							ho)			comb								, 1		
ax		coales	scence	e of si	mall o	pacit	ies -	with 1	nargi	ins of	the si	nall c	pacit	ies	id			ill-def	fined d	iaphra	agm i	borde	r - sho	ould t	e rec	ordeo	lonly	if mo	ore than
		remai	ning	visible	e, wh	ereas	a lar	ge opa	acity	demo	nstrat	es a	•						hird of		_						•		
			_						•	recor			in the	,	ih											only	if the	lengt	th of the heart
		presei	_						•																	•		_	ore than
bu		bulla(hird of					_				,	
ca		,		racic	malig	nanci	ies ex	cludi	ng m	esothe	eliom	a			kl				(Kerle		_								
cg					_	•			_	. gran			nodes		m	e			thelion	•									
cn		calcif	icatio	n in s	mall	pneur	nocoi	niotic	opac	ities					pa	ι		plate	atelect	asis									
co		abnor							•						pl						ls - s	ignifi	cant p	arenc	hyma	al fibi	otic s	tands	in continuity
ср		cor pu		•				1											the plei			U	1		•				Ž
cv		cavity													pi				al thick		of a	n inte	rloba	fissu	ıre				
di		marke	ed dis	tortio	n of a	ın intr	athor	acics	struct	ure					p				nothor	_									
ef		pleura	ıl effu	ision											ra			round	led atel	ectasi	is								
em		emphy	ysem	a											rp			rheun	natoid	pneur	noco	niosis							
es		eggsh	ell ca	lcifica	ation	of hil	ar or	medi	astina	al lym	ph no	des			tb			tubero	culosis										
fr		fractu									•																		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐ Azygos lobe
	⊠ Hiatal hernia		☐ Density, lung
	Airway Disorders		□Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	☐ Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		☐ Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
	_		Date Physician or Worker notified? (mm-dd-yyyy
			Dute Infliction of Worker Holling. (Hilling dayyyy
4E.	Should worker see personal physician because of findings?	YES X	NO NO
450	OTHER COMMENTS		

4D. OTHER COMMENTS

Sof tissue density at left base medially, possible hiatal hernia. See physician.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFI	ICATION
	FEDERAL MINE SAFETY AND HEALTH A DEPARTMENT OF HEALTH AND HUMAN	N SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PRI Coal Workers' Health Surveillance Progr National Institute for Occupational Safety and 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
50 - NIOSH Syllabus Answer	Key	TYPE OF READING
Note: Please record your interpretation of a sin	gle radiograph by placing an "x" in the appropriate box	A B F F L xes on this form. Classify all appearances described in the ILO diographs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	posed (light) Poor contrast Mottle Poor processing Exces	of Scapula Overlay Other (please specify) Sive Edge comment
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY D S D T U T U T U SMALL OPACITIES a. SHAPE/SIZE PRIMARY FOR D T U T U T U T U T U T T U T T T T T T	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width Cification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 O R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR BC C BC C C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D NO	Proceed to Section 4A
Site Chest wall In profile Face on O R L	extent, and width) in profile and face Up to 1/4 of laters 1/4 to 1/2 of laters > 1/2 of laters	on) $(3 \text{mm minimum width required})$ al chest wall = 1 $3 \text{ to } 5 \text{ mm} = a$
4A. ANY OTHER ABNORMALITIES	? YES Complet	te Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (I	LAST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3.6T)
EXAMINEE'S Name ((Last, First MI)

50 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr	hi	ho	id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
aa	atherosclerotic aorta	hi		e	nlarge	ment	of no	n-cal	cified	hilar	or m	edias	tinal	lympl	node:	S
at	significant apical pleural thickening	ho		ŀ	oneyc	omb l	ung									
ax	coalescence of small opacities - with margins of the small opacities	id		i	ll-defii	ned di	aphra	ıgm b	order	- sho	ould b	e rec	orded	only	if mor	e than
	remaining visible, whereas a large opacity demonstrates a			C	ne-thi	rd of	one h	emid	iaphra	ıgm i	s affe	cted				
	homogeneous opaque appearance - may be recorded either in the	ih		i	ll-defii	ned he	eart be	order	- sho	uld b	e reco	orded	only	if the	length	of the heart
	presence or in the absence of large opacities			ŀ	order	affect	ed, w	hethe	er on t	he ri	ght or	on th	ne lef	side,	is mo	re than
bu	bulla(e)			C	ne-thi	rd of	the le	ngth	of the	left l	neart l	borde	er			
ca	cancer, thoracic malignancies excluding mesothelioma	kl		S	eptal (Kerle	y) lin	es								
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	e	r	nesoth	eliom	a									
cn	calcification in small pneumoconiotic opacities	pa		ŗ	late at	telecta	isis									
co	abnormality of cardiac size or shape	pb		F	arench	hymal	band	s - si	gnific	ant p	arenc	hyma	al fibr	otic s	tands i	n continuity
cp	cor pulmonale			V	vith the	e pleu	ıra									
cv	cavity	pi		ŗ	leural	thick	ening	of ar	n inter	lobai	fissu	ire				
di	marked distortion of an intrathoracic structure	px		F	neumo	othora	ıx									
ef	pleural effusion	ra		r	ounde	d atel	ectasi	s								
em	emphysema	rp		r	heuma	itoid p	neun	ocor	niosis							
es	eggshell calcification of hilar or mediastinal lymph nodes	tb		t	ubercu	ılosis										
fr	fractured rib(s) (acute or healed)															

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation	Lung Parenchymal Abnormalities □ Azygos lobe □ Density, lung □ Infiltrate □ Nodule, nodular lesion Miscellaneous Abnormalities	
Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality	☐ Foreign body ☑ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality	
Should worker see personal physician because of findings? OTHER COMMENTS	Date Physician or Worker notified? (mm-dd-yy YES NO	'yy)

Nipple markers.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	ERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVIOUS Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety and Health Surveillance Program National Institute for Occupational Safety Safety National Institute for Occupational Safety Safety National Institute for Occupational Safety S	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
51 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a sin		A B F I I B I I I I B I I I I I I I I I I
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancen	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PSP S t t t r u r u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 Q R Q L R L Q Q Q Q Q Q Q Q Q	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL ORL Extent (chest wall; com in profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral ch > 1/2 of lateral ch OR ORL 1 2 3 1	(3mm minimum width required) sest wall = 1 set wall = 2 (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Se	ections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [I A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAS'	T, FIRST MIDDLE) STATE ZIP CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

51 - NIOSH Syllabus Answer Key

4B. OTHER SYMBOLS (OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ei em es	ir ni i	no id in ki me pa po pi px ra rp to
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia		Lung Parenchymal Abnormalities Azygos lobe								
	Airway Disorders Bronchovascular markings, heavy or increased		☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion								
	☐ Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities Foreign body								
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	☐ Post-surgical changes/sternal wire ☐ Cyst									
	□ Fracture, not healed (non-rib) □ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of									
	☐Vertebral column abnormality		☐ Vascular abnormality Date Physician or Worker notified? (mm-dd-yyyy)								
4E.	Should worker see personal physician because of findings?	YES	NO NO								
4D	OTHER COMMENTS										

4D. OTHER COMMENTS

Note eggshell calficication on the left, especially in the medial aspect of the 8th posterior intercostal space.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRA	APH CLASSIFICAT	CION	
	FEDERAL MINE SAFET DEPARTMENT OF HEAD	LTH AND HUMAN SER	VICES	
EXAMINEE'S Social Security Number	National Institute for O 1095 Willowd	alth Surveillance Program Occupational Safety and Healt dale Road, MS LB208	OMB No.: 0920-002 CDC/NIOSH (M) 2	2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)		own, WV 26505 304-285-6058]-
52 - NIOSH Syllabus Answer	Key		TYPE OF READING $A \longrightarrow B \longrightarrow F \longrightarrow$;
Note: Please record your interpretation of a sin International Classification of Radiographs of				
	osed (dark) Improper p	position Underinflatio	<u> </u>	
(If not Grade 1, mark all boxes that apply) Underex Artifacts	posed (light) Poor contr			
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?		YES Complete Sections 2B and 2C	NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s t q t r u X u	b. ZONES R L UPPER MIDDLE LOWER	c. PROFUSION 0/- 0/0 0/1 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+	C. LARGE OPACITIES SIZE A B C	Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	Y	Complete Sections 3B, 3C	NO Proceed to Section 4A
	In profile an Up to 1/4 of 1/4 to 1/2 o > 1/2 o R L O R	f lateral chest wall = 1 of lateral chest wall = 2 of lateral chest wall = 3 O L 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C A B C B C C B C C C C C C C	.]
3C. COSTOPHRENIC ANGLE OBLI		Section 3D	oceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combine in profile and face on) Up to 1/4 of lateral chest v 1/4 to 1/2 of lateral chest v > 1/2 of lateral chest v OR 0L 1 2 3 1 2	(3mm minimum width wall = 1 3 to 5 mm = a 5 to 10 mm = b	
4A. ANY OTHER ABNORMALITIES	?	YES Complete Section	ns 4B-E and 5. NO Co	omplete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE		READER'S INITIALS	DATE OF READING (mn	
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, F		CODE

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

52 - NIOSH Syllabus Answer Key

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	dı	ef	em	es	fr	hı		ho 10	d 11	h	kl	me	pa	pb	рı	px	ra	rp	tb	
][
aa		ather	oscle	rotic a	orta										h	i		enla	rgeme	ent	of no	n-cal	cified	hilar	or m	edias	tinal	lympl	node	es
at		signi	ficant	apica	l pleu	ıral th	nicker	ning							h)		hone	eycon	nb 1	ung							_		
ax		coalescence of small opacities - with margins of the small opacities											ic	l		ill-defined diaphragm border - should be recorded only if more than											ore than			
		rema	ining	visibl	e, wh	ereas	a lar	ge op	acity	demoi	nstrat	es a						one-third of one hemidiaphragm is affected												
		homo	ogene	ous or	oaque	appe	aranc	e - m	ay be	recor	ded e	ither	in the	e	iŀ	ı		ill-defined heart border - should be recorded only if the length of the he										h of the heart		
		prese	nce o	r in th	e abs	ence	of lar	ge op	acitie	es								border affected, whether on the right or on the left side, is more that										ore than		
bu		bulla	(e)															one-	third	of t	he le	ngth	of the	left l	neart l	borde	er			
ca		cance	er, tho	oracic	malig	gnanc	ies ex	cludi	ng m	esothe	lioma	ì			k			septal (Kerley) lines												
cg		calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes									n	e		mesothelioma																
cn		calcification in small pneumoconiotic opacities									p	a		plate atelectasis																
co		abnormality of cardiac size or shape									p)		parenchymal bands - significant parenchymal fibrotic stands in continuity									in continuity							
cp		cor pulmonale											with the pleura																	
cv		cavit	y												p	i		pleu	ral thi	icke	ening	of a	n inter	lobar	fissu	re				
di		mark	ed di	stortio	n of a	ın int	ratho	acic	struct	ure					p:	K		pnet	ımoth	ora	X									
ef		pleur	al eff	usion											ra	ı		rour	ded a	itele	ectasi	S								
em		emph	iysen	ıa											rp)		rheu	matoi	id p	neun	ocor	niosis							
es		eggsl	nell c	alcific	ation	of hi	lar or	medi	astina	al lym	ph no	des			tb	,		tube	rculos	sis										
fr		fracti	ired r	ib(s) (acute	or he	ealed)	1																						

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities	
	Hiatal hernia		☐ Azygos lobe	
	Airway Disorders		□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	☐ Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square_{Cyst}	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□ Scoliosis		☐ Aorta, anomaly of	
	☐ Vertebral column abnormality		☐ Vascular abnormality	
			Date Physician or Worker notified? (mm-dd-yyy	y)
4E.	Should worker see personal physician because of findings?	YES	ио 🔀	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and I 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
53 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a sin	gle radiograph by placing an "x" in the appropriate boxe	A B F F Some son this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhance	Other (please specify) ve Edge ement
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PSP SP S Q t Q t T U T U	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R L Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L C R C C C C C C C	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) 2
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	STATE ZIP CODE

	-	
EXAMINEE'S Name ((Lact	First MIN
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4R	OTHER	SVMROI	S (OBI	JGATORY)	
4D.	OTHER	O LIVIDUL	ഹ ധാവ	JULATURIT	

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	di	ef	em	es	fr	hi	ł	10 i	id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
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aa		ather	oscle	rotic a	orta										h	i		enla	arger	ment	of no	n-cal	cified	hilar	or m	edias	tinal I	lymph	node	s
at		signi	ficant	apica	l pleu	ıral th	nicken	ing							h	О		hon	neyco	omb	lung									
ax		coale	sceno	ce of s	mall (opaci	ties - '	with r	nargi	ns of	the sr	nall o	pacit	ies	ic	i		ill-c	defin	ned d	iaphra	ıgm b	order	- sho	ould b	e rec	orded	only	if mo	re than
		rema	ining	visibl	e, wh	ereas	a larg	ge opa	city	demoi	nstrat	es a						one	e-thir	d of	one h	emid	iaphra	ıgm i	s affe	cted				
		homo	gene	ous or	paque	appe	aranc	e - ma	ay be	recor	ded e	ither	in the	9	il	ı		ill-c	defin	ned h	eart b	order	- sho	uld b	e reco	orded	only	if the	lengtl	of the heart
		prese	nce o	or in th	e abs	ence	of larg	ge opa	acitie	s								bor	der a	affec	ted, w	hethe	er on t	he rig	ght or	on th	ie left	side,	is mo	re than
bu		bulla	(e)															one	-thir	d of	the le	ngth	of the	left l	neart l	borde	r			
ca		cance	r, the	oracic	malig	gnanc	ies ex	cludiı	ng me	esothe	lioma	ì			k	1		sep	tal (I	Kerle	ey) lin	es								
cg		calcit	ied n	on-pn	eumo	conic	otic no	dules	(e.g.	. granı	uloma	a) or	nodes	3	n	ie		mes	sothe	elion	na									
cn		calcit	icatio	on in s	mall	pneu	mocor	niotic	opac	ities					p	a		plat	te ate	electa	asis									
co		abno	mali	ty of c	ardia	c size	or sh	ape							p	b		par	ench	yma	l banc	ls - si	gnific	ant p	arenc	hyma	l fibr	otic st	tands i	n continuity
cp		cor p	ulmo	nale														wit	h the	e plei	ıra									
cv		cavit	y												p	i		plei	ural t	thick	ening	of ar	ı inter	lobar	fissu	re				
di		mark	ed di	stortio	n of a	an int	rathor	acic s	truct	ure					p	X		pne	eumo	othora	ax									
ef		pleur	al eff	usion											ra	ı		rou	nded	l atel	ectasi	S								
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es		eggsł	nell c	alcific	ation	of hi	lar or	media	astina	ıl lym	ph no	des			tł)		tub	ercul	losis										
fr		fractı	ıred 1	rib(s) (acute	or h	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐Azygos lobe
	☐ Hiatal hernia		☐ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality
	•		Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES	NO NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

Note that this image is the first of the two 0/0 standard radiographs, Normal #1.

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Fu	ll SSN	is op	otional	, last	4 digits	are re	equired	•			organtov FAX: 30									\Box	\Box		
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	1.	IM.	AGE (QUAL	ITY	Ov	erexpos	sed (darl	(x)	Imp	roper po	sition		Underin	flation			Scapul	a Overl	ay			
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L			at apply		L		tifacts		L	_	r process	sing		Enhance	_		<u></u>						
	2A.	AN	Y CL	ASSIF	TABLE	PARE	ENCHY	MAL A	BNORN	MALIT	IES?				YES	X		nplete S and 2C	ections	N	10		roceed to ection 3A
	2B.	SM		OPAC SHAPE/	SIZE				b. ZON	ES	C	. PROFUSI	ON		2C.	LAR	GE OI	PACIT	IES				
		PI	RIMARY	7 [SECONDA	RY		LIDDED	R	L	<u> </u>	/0 1/1	1/2							_			
) s] [] [p s	<u> </u>		UPPER MIDDLE			[2	/1 2/2	1/2		:	SIZE	X	A	В	C		oceed to ction 3.	
			1 L 2 u] [] [걸냔	<u> </u>		LOWER			3	/2 3/3	3/+										
L			7	<u> </u>	1 Lu	<u></u>				<u> </u>	Ľ	72 373	31 .										
	3A.	AN	Y CL	ASSIF	TABLE	PLEU	JRAL A	BNOR	MALITI	ES?					YES		Cor 3B,	nplete S 3C	ections	N	0	хı	roceed to ection 4A
	3B.			L PL	AQUES Site	(mar		ilcificatio ification	n, extent,		h) nt (chest v	vall: comb	ined fo	or.		Widt	h (in pro	ofile onl	v)				
		Chest	: wall In profil	0	R	L	O	RL	1	in pr	rofile and j to 1/4 of la	face on)				(3mr		ium widt	h require	ed)			
			Face on	0	R	L		R L	1		to 1/2 of la	ateral ches	st wall	= 2		5 to	10 mm = 10 mm =	= b					
			hragm	0	R	L	0	R L	1	О	> 1/2 of 18	ateral ches	o I	= 3		0	R	– c	O	L]		
		Othe	er site(s)	О	R	L	0	R L	il	1	2 3	7	1	2 3		a	b	С	a	b	С	1	
H	3C.	CO	STOP	HRE	NIC AN	GLE	OBLIT	ERATI	ON	R	I I I I	roceed to		10 L	Proceed	l to Sec	tion 4A				' -		
H											<u> </u>	ection 3D Extern			ombined for				profile or	nly)			
	3D.	ווע	r r usr	PLE		THIC	 		k site, calc t, and wid		·	in pro	ofile ar	nd face on				mm mini to 5 mm	imum wi n = a	dth r	equire	d)	
		Ches	st wall		Site			C	alcificatio	n			to 1/2	of lateral	chest wall =	= 2		to 10 mn > 10 mn					
			In profil	e O	R	L		O	R	L		O R		O	L	- 3	(R]		O	L	
			Face on	O	R	L		O	R	L]	1 2	3	1	2	3	8	b	С		a	b	2
	4A.	AN	Y OT	HER A	ABNOR	MAL	ITIES?					YES	X	Complete S	Sections 4B	-E and :	5.	NO		Com	plete	Section	5.
	5.	NI	OSH F	Reader	· ID	_					R	EADER	'S IN	ITIALS	S	DA'	TE OF	READ	ING (n	nm-	dd-y	ууу)	
	N	I	С) S	Н											0	3	- 1	9	- 2	2 (2	4
	(Le	ave ID	Numbe	r blank	if you ar	e not a	NIOSH A	A or B Re	ader)														
	SIG	NATU	JRE									PRINT	ED N	AME (LA	ST, FIRST	MIDD	LE)						
	STI	REET	ADDRI	ESS						CITY						_ L	TATE	J [_	Z	IP CO	DDE		

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EXAMINEE'S Name ((Lact	First MIN
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4B. OTHER SYMBOLS	(OBLIGATORY))
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	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb						
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes						
at	significant apical pleural thickening	ho	honeycomb lung						
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than						
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected						
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart						
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than						
bu	bulla(e)		one-third of the length of the left heart border						
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines						
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma						
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis						
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity						
cp	cor pulmonale		with the pleura						
cv	cavity	pi	pleural thickening of an interlobar fissure						
di	marked distortion of an intrathoracic structure	px	pneumothorax						
ef	pleural effusion	ra	rounded atelectasis						
em	emphysema	rp	rheumatoid pneumoconiosis						
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis						
fr	fractured rib(s) (acute or healed)								
4C. I	MARK ALL BOXES THAT APPLY: (Use of this list is into	ended to	reduce handwritten comments and is optional)						
	Abnormalities of the Diaphragm		Lung Parenchymal Abnormalities						
	☐ Eventration		DAZVgos lobe						

			Lung Parenchymal Abnormalities
	Eventration		☐Azygos lobe
	Hiatal hernia		☑ Density, lung
	Airway Disorders		□Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□ Scoliosis		☐ Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
	·		Date Physician or Worker notified? (mm-dd-yyyy)
1Ε.	Should worker see personal physician because of findings?	YES X	NO

4D. OTHER COMMENTS

Mass 3.5 cm in diameter in retrocardiac area over T8-T9. Small pneumothorax R apex.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN S	ERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREV. Coal Workers' Health Surveillance Program National Institute for Occupational Safety and H 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
55 - NIOSH Syllabus Answer	Key	TYPE OF READING A B F F
		on this form. Classify all appearances described in the ILO graphs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancer	Other (please specify) e Edge ment
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t r u r u	b. ZONES R L UPPER	SIZE O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) cification R L Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 > 1/2 of lateral chest wall = 3 R L R L 2 3 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) a to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Se	ections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAS	ST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa at ax bu ca cg cn co cp cv di ef em es f	r hi	h	o id	ih	kl	me	pa	pb	pi	px	ra	rp	tb	
aa	atherosclerotic aorta	hi		enlarge	ement	of no	n-cal	cified	hilar	or m	edias	tinal	lympl	h node	es
at	significant apical pleural thickening	ho		honeyc	omb l	ung							-		
ax	coalescence of small opacities - with margins of the small opacities	id		ill-defi	ned di	aphra	ıgm b	order	- sho	ould b	e rec	orded	lonly	if mo	re than
	remaining visible, whereas a large opacity demonstrates a			one-thi	rd of	one h	emid	iaphra	ıgm i	s affe	cted		•		
	homogeneous opaque appearance - may be recorded either in the	ih		ill-defi	ned he	eart be	order	- sho	uld b	e reco	orded	only	if the	lengtl	h of the heart
	presence or in the absence of large opacities			border	affect	ed, w	hethe	er on t	he ri	ght or	on tl	ne lef	t side	, is mo	ore than
bu	bulla(e)			one-thi	rd of	the le	ngth	of the	left l	neart l	borde	er			
ca	cancer, thoracic malignancies excluding mesothelioma	kl		septal (Kerle	y) lin	es								
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me		mesoth	eliom	a									
cn	calcification in small pneumoconiotic opacities	pa		plate at	telecta	sis									
co	abnormality of cardiac size or shape	pb		parencl	hymal	band	ls - si	gnific	ant p	arenc	hyma	al fibr	otic s	tands	in continuity
cp	cor pulmonale			with th	e pleu	ra									
cv	cavity	pi		pleural	thick	ening	of ar	n inter	lobai	fissu	ıre				
di	marked distortion of an intrathoracic structure	px		pneum	othora	ιX									
ef	pleural effusion	ra		rounde	d atel	ectasi	s								
em	emphysema	rp		rheuma	atoid p	neun	ocor	niosis							
es	eggshell calcification of hilar or mediastinal lymph nodes	tb		tubercu	ılosis										
fr	fractured rib(s) (acute or healed)														

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation	☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities □ Bony chest cage abnormality □ Fracture, healed (non-rib) □ Fracture, not healed (non-rib) □ Scoliosis	Foreign body Post-surgical changes/sternal wire Cyst Vascular Disorders Aorta, anomaly of Vascular abnormality
□Vertebral column abnormality 4E. Should worker see personal physician because of findings? 4D. OTHER COMMENTS	Date Physician or Worker notified? (mm-dd-yyyy) YES NO NO

Single chamber pacemaker and lead in place.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	TION
	FEDERAL MINE SAFETY AND HEALTH ACT OF DEPARTMENT OF HEALTH AND HUMAN SERV	VICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVENT Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
56 - NIOSH Syllabus Answer	Key	TYPE OF READING $ A \square B \square F \square $
	gle radiograph by placing an "x" in the appropriate boxes on to Pneumoconiosis or Illustrated by the ILO Standard Radiograp	this form. Classify all appearances described in the ILO
	osed (dark) Improper position Underinflation osed (light) Poor contrast Mottle Poor processing Excessive Ed Enhancement	Other (please specify)
ZA, MAI CENSSII INDEL I MERCOI		YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p s p s q t q t u r u	b. ZONES R L UPPER	SIZE O A Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L C C C C C C C C C	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O b c b c
3C. COSTOPHRENIC ANGLE OBLIT	FERATION R L Proceed to Section 3D NO Proceed to Section 3D	oceed to Section 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile Face on O R L	Calcification ORL RL Extent (chest wall; combine in profile and face on) Up to 1/4 of lateral chest v 1/4 to 1/2 of lateral chest v > 1/2 of lateral chest v ORL ORL 1 2 3 1 2	(3mm minimum width required) wall = 1 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Section	ns 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, F	STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

a	a at ax bu ca cg cn co cp cv di ef em es f	r hi h	io id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe
Airway Disorders	☐ Density, lung ☐ Infiltrate
☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation	□ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities ☐ Bony chest cage abnormality	☐ Foreign body ☐ Post-surgical changes/sternal wire
☐ Fracture, healed (non-rib) ☐ Fracture, not healed (non-rib)	☐ Cyst Vascular Disorders
☐Scoliosis ☐Vertebral column abnormality	☐ Aorta, anomaly of ☐ Vascular abnormality
	Date Physician or Worker notified? (mm-dd-yyyy)
4E. Should worker see personal physician because of findings?	YES NO NO

4D. OTHER COMMENTS

Density suspicious for coronary artery calcification below L posterior 8th rib medially.

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4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	o id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

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			ade 1, n t apply)			 Arti	facts		П	Poor pro	ocessing			ive Edge								
	2A.	AN	Y CLA	SSIFI	ABLE PA	AREN	NCHYM	IAL ABN	ORMA	LITIES	?		Enhand	YES	X	Comp 2B an	lete Sed	ctions	NO			ceed to
	2B.	SM	ALL C	PACI	TIES			h	. ZONES		c. PROF	USION		2C.	LAR	SE OPA	CITI	ES				
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	3C.	CO	STOP	HREN	IC ANG	LE O	BLITEI	RATION		XL	Proceed Section 3		NO [Proceed	l to Sect	ion 4A						
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	4A.	AN	YOTE	IER A	BNORM	ALIT	TIES?				YES	X	Complete	e Sections 4B	-E and 5		NO	-	Comp	lete Sec	ction 5.	
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4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormanties of the Diaphragm		Lung Parenchymal Abnormalities
	☐ Eventration		☐Azygos lobe
	Hiatal hernia		☐ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☑ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	□Vertebral column abnormality		☐ Vascular abnormality
	•		Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES X	NO NO
4D	OTHER COMMENTS		

4D. OTHER COMMENTS

Focal density over R lower zone could represent face-on plaque, given the presence of diffuse pleural thickening. Tiny metallic foreign body over LUQ of abdomen.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	TION
	FEDERAL MINE SAFETY AND HEALTH ACT O DEPARTMENT OF HEALTH AND HUMAN SER	VICES
Full SSN is optional, last 4 digits are required	CENTERS FOR DISEASE CONTROL & PREVEN Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Healt 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
59 - NIOSH Syllabus Answer	Key	TYPE OF READING A B F
	gle radiograph by placing an "x" in the appropriate boxes on recumoconiosis or Illustrated by the ILO Standard Radiograp	this form. Classify all appearances described in the ILO
(If not Grade 1, mark all boxes that apply) Underexp	sed (dark) Improper position Underinflation cosed (light) Poor contrast Mottle Poor processing Excessive Edition Enhancement	Other (please specify)
2A. ANY CLASSIFIABLE PARENCHY	(MAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S U t q t u u	b. ZONES R L UPPER	C. LARGE OPACITIES SIZE O B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR BC C BC C C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLIT	Proceed to Section 3D NO Pr	roceed to Section 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile O R L Face on O R L	Extent (chest wall; combining profile and face on) Up to 1/4 of lateral chest vall; color later	(3mm minimum width required) wall = 1 wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES:	YES Complete Section	ons 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, F	FIRST MIDDLE) STATE ZIP CODE

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4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa at ax bu ca cg cn co cp cv di ei em es	ir ni	no id in ki me pa po pi px ra rp to
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders Bronchovascular markings, heavy or increased Hyperinflation Bony Abnormalities Bony chest cage abnormality Fracture, healed (non-rib) Fracture, not healed (non-rib) Scoliosis Vertebral column abnormality		Lung Parenchymal Abnormalities Azygos lobe Density, lung Infiltrate Nodule, nodular lesion Miscellaneous Abnormalities Foreign body Post-surgical changes/sternal wire Cyst Vascular Disorders Aorta, anomaly of Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES X	Date Physician or Worker notified? (mm-dd-yyyy)
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and F 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
60 - NIOSH Syllabus Answer	Key	TYPE OF READING A B F F
		s on this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
	Enhance	Other (please specify) ve Edge ement
ZA. MAI CERSSII INDEET INCH	THE ABROKMALITES.	YES 2B and 2C NO Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p p p t q t r u r u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) (cification Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 > 1/2 of lateral chest wall = 3 X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R B C B C B C C C C C C C C
3C. COSTOPHRENIC ANGLE OBLI	TERATION Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile Face on R L	RIG (mark site, calcification, extent, and width) Calcification R L R L R L 1 X 3 1	(3mm minimum width required) 3 to 5 mm = a 2 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete S	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	ST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY))

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi l	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DA	TE O	F RAI	DIOGI	RAPH	(mP -dG	-\\\)	C	HEST	T RA	DIOG	GRAPI	ł CL	ASSI	FICA'	TION	J							
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EX	AMIN	NEE'S	Social	Secur	rity Num	ber	<u> </u>	CENTE			EASE CC				NTION				920-0				
								Na	tional In	nstitute f	s' Health S for Occup	ational	Safety	and Heal	lth				H (M)				
Ful	l SSN	l is opt	tional,	last 4	digits ar	re req	uired.	_	10	Mor	lowdale F	WV 26	5505	08		FA	CILI	IY Nu	ımber	' - Un	it Nu	mber	\neg
E X .	AMIN	NEE'S	Name	(Last	, First M	II)				FA	AX: 304-2	285-605	i8							_]-			
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											n "x" in the												
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		f not Gra	,			Artif	îacts			Poor	processing	g [cessive E	_	[
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	2B.	SMA	ALL O	HAPE/SI	IZE				b. ZONES		c. PI	ROFUSION	N /1		2C. I	ARG	E OPA	CITI	ES				
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		r			Y U		LC	OWER		<u> </u>	3/2	3/3 3	/+										
	3A.	AN	Y CLA	SSIFL	ABLE P	LEUR	AL AB	NORM	ALITIE	S?					YES		Comp 3B, 30	lete Sec	ctions	NO	<u> </u>		ceed to
	3B.	PLF	EURAI	L PLA	QUES	(mark		ification,	extent, an		(1 t and 1	·hin	1.6		1	Width	(in profi	le only	1				
		Chest		0	Site R L	٦ _١	Calcific	ation		in prof	(chest wall file and face	e on)				(3mm i	ninimun mm = a	n width		ed)			
			n profile	0	R L	 	O R			1/4 to	1/4 of later 1/2 of later	ral chest v	wall = 2			5 to 10	mm = b)					
			hragm	0	RL	╡╽╏	O R	╬		\Box	1/2 of later	ral chest v	$\neg \Box$				$\frac{mm}{R} = c$:	О	L			
		-	r site(s)	О	R L	╡╽┆	O R	L		1	2 3	1	2	3		a	b		a	b	c		
	3C.	COS	STOPI	HREN	IC ANG	LE OI	BLITEI	RATION	N .	R	1 1	eed to	NO		Proceed to	o Sectio	on 4A						
	3D.	DIF	FUSE	PLEU	JRAL TH	HICKI	ENING		ite, calcifi and width)		<u> </u>	Extent ((chest wo	all; combi	ned for		(3mn	n minin	ofile on		[uired])	
					Site				Í	1				teral chest				5 mm 10 mm					
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_			ace on	0	R L	<u> </u>		0	R L	<u> </u> 		2	3	1	2 3]	a	b	С	a	t t) c]
	4A.	ANY	Y OTH	ER A	BNORM	 (ALIT	TES?				<u> </u>	TES >	Com	plete Secti	ions 4B-E	and 5.	<u></u>	NO		Comp	lete S	ection 5	-
	5.	NIC	OSH R	eader]	ID						REA	ADER'S	INIT	IALS		DAT	E OF R	EADI	NG (n	nm-de	d-yyy	y)	
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EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa	at	ax	bu	ca	cg	cn	co	cp	cv	dı	ef	em	es	tr		hı	ho	ıd	ıh	kl	me	pa	pb	рı	px	ra	rp	tb	
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aa		ather	osclei	otic a	orta											hi		e	nlarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympl	node	es
at		signi	ficant	apica	l plei	ıral th	nicker	ning								ho		ŀ	oneyo	omb	lung							_		
ax		coale	scenc	e of s	mall	opaci	ties -	with	margi	ns of	the sr	nall	opaci	ties		id		i	ll-defi	ned d	iaphra	ıgm l	ordei	- sho	ould b	e rec	orded	only	if mo	ore than
		rema	ining	visibl	e, wh	ereas	a lar	ge op	acity	demo	nstrat	es a						C	ne-thi	rd of	one h	emid	iaphra	agm i	s affe	cted		•		
		home	ogene	ous or	oaque	appe	earanc	e - n	nay be	recor	ded e	ither	in th	e		ih		i	ll-defi	ned h	eart b	ordei	- sho	uld b	e reco	orded	only	if the	lengt	th of the heart
		prese	nce o	r in th	e abs	ence	of lar	ge oj	oacitie	S								ŀ	order	affect	ted, w	heth	er on	the rig	ght or	on the	he lef	t side,	is mo	ore than
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ca		canc	er, tho	racic	malig	gnanc	ies ex	clud	ing m	esothe	elioma	a				kl		S	eptal (Kerle	y) lin	es								
cg		calci	fied n	on-pn	eumo	conic	otic no	odule	s (e.g	. gran	uloma	a) or	node	s		me		r	nesoth	elion	na									
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fr		fract	ured r	ib(s) (acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

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	3C.	СО	STOP	HREN	IC ANG	LE O	BLITE	RATION	1	R L	Proceed Section 3		NO	Proceed	to Sect	ion 4A						
	3D.	DIF	FUSE	PLEU	JRAL TI	HICK	ENING		e, calcific	ation,	in	profile (and face o			(3mr	n minin	rofile or num wie		quired)		
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	4A.	AN	Y OTI	IER A	BNORM	ALIT	TIES?				YES	X	Complete	Sections 4B	-E and 5		NO		Comp	lete Sec	ction 5.	
	5.	NIC	OSH R	eader	ID						READI	ER'S I	NITIAL	S	DAT	TE OF R	EADI	NG (n	ım-d	d-yyyy	r)	
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EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

4B.	OTHER	SYMBOLS	(OBLIGATORY))

	aa at ax bu ca cg cn co cp cv di ef em es fr	hı h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta hi	i	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening ho	О	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities id	1	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the ih	1	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma kl	l	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes m	ıe	mesothelioma
cn	calcification in small pneumoconiotic opacities pa	a	plate atelectasis
co	abnormality of cardiac size or shape pt	b	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity pi	i	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure pr	X	pneumothorax
ef	pleural effusion ra	ì	rounded atelectasis
em	emphysema rp)	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes tb)	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders		□Infiltrate
	☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation		☐ Nodule, nodular lesion Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO X
4D.	OTHER COMMENTS		

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	2B.	SM	IALL a.	OPA(ES				b. ZON	NES		c. PRO	FUSION			2C.	LAR	GE OF	ACIT	IES					
		Pl	RIMARY		SECO	NDARY		_		R	L		0/-	1/1 1/								_				
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	3A.	AN	Y CL	ASSII	FIABI	LE PL	EUR	AL A	BNORI	MALIT	TES?						YES		Con 3B,	nplete S 3C	ections	N	io [x ı	roceed ection	
	3B.		EURA	L PL	AQU. Site		(mark		cificatio ication	n, extent,			est wall;	combina	d for		ı	Widti	h (in pro	ofile onl	v)					
		Chest	: wall In profil	. 0	R	L	ı 📙	O	R L	1	in	profile d	<i>and face</i> of lateral	on)		1		(3mn		um widt	h require	ed)				
			Face on	=	R	L	¦	0	R L]]		/4 to 1/2	of lateral	l chest w	all = 2	2		5 to 1	10 mm =	= b						
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			er site(s	늗	R	L	! 	0	R L]]	╽╞	1 2	3		2			a	b	c	a	b]] [c	7		
H	3C.	CO	STOI				F O		L CRATIO	J J	F		Procee			'	Proceed	Lto Soot	tion 44			<u> </u>	<u>'</u>			
													Section		NO	wall; com				dth (in r	profile o	nlv)				
	3D.	DII	FFUSI	E PLE	CURA	LTH	ICKI 	ENING		site, cal t, and wid		on,		in profil	e and	face on) lateral che	, ,		(31		imum wi		equire	d)		
		Ches	st wall		Sit	te			Ca	alcificatio	on			1/4 to 1	/2 of	lateral ch	est wall =	= 2	5 t	o 10 mn > 10 mn	n = b					
			In profi	le O	R	L			O	R	L		О	R	1/2 01	lateral ch	L L	3	C	R]	Γ	О	L		
_			Face on	O	R	L			0	R	L		1	2	3	1	2 3		a	b	С	Ē	a	b	c	
	4A.	AN	YOT	HER	ABNO	ORM	ALIT	TES?					YE	es 🔀	Con	mplete Se	ctions 4B	-E and 5	5.	NO		Con	plete	Section	15.	
	5.	NI	OSH I	Reade	r ID								REAI	DER'S	INI	TIALS		DA	ГЕ ОБ	READ	ING (n	nm-	dd-y	ууу)		7
	Ν	I	C) 5	S 1	┨												0	3	- 1	9	-	2 (ე 2	4	
	(Lea	ave ID	Numbe	er blanl	k if you	u are no	ot a NI	OSH A	or B Re	ader)																-
	SIG	NATU	JRE										PI	RINTED	NAN	ME (LAS	Γ, FIRST	MIDD	LE)							
																								\top		
	STI	REET	ADDR	ESS							CITY							_ L	ГАТЕ	I L	Z	IP C	ODE			

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER SYMBOLS	(OBLIGATORY))

	na at ax bu ca cg cn co cp cv di ef em es	fr hi k	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation		☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities ☐ Bony chest cage abnormality ☐ Fracture, healed (non-rib) ☐ Fracture, not healed (non-rib) ☐ Scoliosis ☐ Vertebral column abnormality		☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality
Should worker see personal physician because of findings? OTHER COMMENTS	YES	Date Physician or Worker notified? (mm-dd-yyyy) NO

Vertebroplasty T11 and L1.

DATE OF RADIOGRAPH (mP -dG\\\	() CHEST RADIOG	RAPH CLASSIFICATIO	ON
	DEPARTMENT OF HE	ETY AND HEALTH ACT OF 1 EALTH AND HUMAN SERVIC	CES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are re EXAMINEE'S Name (Last, First MI)	Coal Workers' National Institute fo 1095 Willo equired. Morga	ASE CONTROL & PREVENTION Health Surveillance Program or Occupational Safety and Health bowdale Road, MS LB208 antown, WV 26505 X: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
64 - NIOSH Syllabus Ans	wer Key		TYPE OF READING A B F
Note: Please record your interpretation of	of a single radiograph by placing an		A B F F Grant B B F Grant F B B F Grant F B B B F B B B B B B B B B B B B B B
(If not Grade 1, mark all boxes that apply) Under the state of the st	nderexposed (light) Poor co	rocessing Excessive Edge Enhancement	Other (please specify) Complete Sections
		YE	S 2B and 2C NO Section 3A
2B. SMALL OPACITIES a SHAPE/SIZE PRIMARY SECONDARY P S P S Q t X t U r u	b. ZONES R L UPPER X MIDDLE X LOWER X	c. PROFUSION 0/- 0/0 0/1 1/0	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEU	JRAL ABNORMALITIES?	YES	Complete Sections NO Proceed to Section 4A
3B. PLEURAL PLAQUES (machine control of the state) Chest wall In profile Face on OR L Diaphragm OR L Other site(s) OR L	O R L in profile Up to 1/1/4 to 1/2		Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE	OBLITERATION R L	Proceed to Section 3D NO Proceed	ed to Section 4A
3D. DIFFUSE PLEURAL THIC Site Chest wall In profile O R L Face on O R L	KENING (mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall 1/4 to 1/2 of lateral chest wall > 1/2 of lateral chest wall OR OL 1 2 3 1 2	(3mm minimum width required) = 1
4A. ANY OTHER ABNORMAL	ITIES?	YES Complete Sections 4	B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a	NIOSH A or B Reader)	READER'S INITIALS	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (LAST, FIRS	T MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOL	S (OBI	JGATORY	١
4D.	OTHER	O I WIDON	ഹ ധാവ	JULATURI	,

a	na at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale	_	with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe
	Airway Disorders ☐ Bronchovascular markings, heavy or increased		☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion
	Hyperinflation Bony Abnormalities		Miscellaneous Abnormalities ☐ Foreign body ☐ Post-surgical changes/sternal wire
	☐ Bony chest cage abnormality ☐ Fracture, healed (non-rib) ☐ Fracture, not healed (non-rib)		☐ Cyst Vascular Disorders
	□Scoliosis □Vertebral column abnormality		☐ Aorta, anomaly of ☐ Vascular abnormality
4E.	Should worker see personal physician because of findings?	YES	Date Physician or Worker notified? (mm-dd-yyyy)
4D	OTHED COMMENTS		

4D. OTHER COMMENTS

A few s opacities are visible in the right costophrenic angle area.

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					CY A D	<u> </u>				<u>L</u>			cessing			hhancem	_		<u>. </u>						
	2A.	AN	Y CLA	45511	HIAB	LE PA	KEN	CHY	MAL A	BNOK	MAL.	HIES?					YES	\times		nplete Se and 2C	ections	N	<u> </u>		roceed to ection 3A
	2B.	SM	ALL (OPA(ES				b. ZON	NES		c. PRO	FUSION	71		2C.	LAR	GE OP	ACIT	IES				
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	3A.	AN	Y CL	ASSII	FIAB	LE PI	ÆUR	AL A	BNOR	MALIT	TES?						YES		Con 3B,	nplete Se 3C	ections	N(> <u>}</u>	x ı	oceed to ection 4A
	3B.		EURA	L PL	AQU Sit		mark		cification	ı, extent,			est wall; o	combine	d for		ı	Width	ı (in pro	ofile only	v)				
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		Diap	hragm	O	R	L	i	0	R L	i		$\frac{1}{2}$		O	L	j		O	R	·	O	L			
		Othe	er site(s)	O	R	L	j	0	R L	j		1 2	3	1	2	3		a	b	c	a	b	c]	
	3C.	CO	STOP	HRE	NIC	ANGI	E O	BLITE	RATIO	ON	I	R L	Procee Section		NO		Proceed	to Sect	ion 4A						
	3D.	DII	FFUSE	E PLE	EURA	L TH	ICK	ENIN(mark	site, cal	cificati	on,	i	Extent (c		wall; com	bined for	-			profile on			47	
					Si	ite			extent	, and wid	dth)			Up to 1	/4 of	I face on) I lateral che			3	to 5 mm	a = a	uiiic	quirec	ı)	
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_			Face on	C	R	L			0	R	L		1	2	3	1	2 3	<u> </u>	a	b	С	L	a	b	
	4A.	AN	Y OT	HER	ABN	ORM	ALIT	TES?					YE	S	Со	omplete Sec	ctions 4B-	E and 5		NO	X	Comp	olete S	Section	5.
	5	NI	OSH F	Reade	r ID								REAL	ER'S	INI	TIALS		DAT	TE OF	READ	ING (m	m-d	ld-yy	yy)	
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EXAMINEE'S Name ((Lact	First MIN
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4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	ERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVI Coal Workers' Health Surveillance Program National Institute for Occupational Safety and He 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
66 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a sin		A B F III on this form. Classify all appearances described in the ILO graphs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancen	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY PS PS t t t r u r u	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width)	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL Extent (chest wall; com in profile and face on) Up to 1/4 of lateral che 1/4 to 1/2 of lateral che 1/2 of lat	(3mm minimum width required) ast wall = 1 ast wall = 2 bst wall = 2 (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Se	ctions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAS'	T, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)	١

a	a at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb			
\triangleright						
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes			
at	significant apical pleural thickening	ho	honeycomb lung			
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than			
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected			
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart			
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than			
bu	bulla(e)		one-third of the length of the left heart border			
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines			
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma			
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis			
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity			
cp	cor pulmonale		with the pleura			
cv	cavity	pi	pleural thickening of an interlobar fissure			
di	marked distortion of an intrathoracic structure	px	pneumothorax			
ef	pleural effusion	ra	rounded atelectasis			
em	emphysema	rp	rheumatoid pneumoconiosis			
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis			
fr	fractured rib(s) (acute or healed)					
4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)						

Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
Airway Disorders Bronchovascular markings, heavy or increased	☐ Infiltrate ☐ Nodule, nodular lesion
☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body ☐ Post-surgical changes/sternal wire
☐Bony chest cage abnormality ☐Fracture, healed (non-rib) ☐Fracture, not healed (non-rib)	☐ Cyst Vascular Disorders
☐Scoliosis ☐Vertebral column abnormality	☐ Aorta, anomaly of ☐ Vascular abnormality
4E. Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyyy) YES NO NO
4D. OTHER COMMENTS	

Calcification in small opacities makes them appear more profuse.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIO	GRAPH CL	ASSIFICATIO	N					
	FEDERAL MINE SA DEPARTMENT OF	HEALTH AND	HUMAN SERVICI	ES					
EXAMINEE'S Social Security Number	CENTERS FOR DIS	EASE CONTRO		OMB No.: 0920-002					
	National Institute	for Occupational	Safety and Health	CDC/NIOSH (M) 2.					
Full SSN is optional, last 4 digits are require	ed. Mo	Illowdale Road, Morgantown, WV 26	505	FACILITY Number -	Unit Number				
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058 KAMINEE'S Name (Last, First MI)								
67 - NIOSH Syllabus Answer	Key			TYPE OF READING $A \square B \square F \square$					
Note: Please record your interpretation of a sir International Classification of Radiographs of									
1. IMAGE QUALITY Overexp	osed (dark) Impr	roper position	Underinflation	Scapula Overlay					
2 3 U/R Underex	posed (light) Poor	contrast	Mottle	Other (please specify)					
(If not Grade 1, mark all boxes that apply) Artifacts	Poor	processing	Excessive Edge Enhancement						
2A. ANY CLASSIFIABLE PARENCH	IYMAL ABNORMALITI	ES?	YES	Complete Sections 2B and 2C	NO Proceed to Section 3A				
2B. SMALL OPACITIES a. SHAPE/SIZE	b. ZONES	c. PROFUSIO	2C.	LARGE OPACITIES					
PRIMARY SECONDARY D S	R L UPPER	1/0 1/1 1	/1		l				
ps ps	MIDDLE	2/1 2/2 2	/2 /3	IZE O A B C	Proceed to Section 3A				
r u r u	LOWER	3/2 3/3 3	/+						
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?			Complete Sections	Proceed to				
JA. THAT CERTOOT HIBEET EECHTE	TABLES CANALIZATION		YES	3B, 3C	NO Section 4A				
	calcification, extent, and width) et (chest wall; combin	ed for	Width (in profile only)					
In profile O R L O		ofile and face on) o 1/4 of lateral chest v	vall = 1	(3mm minimum width required) 3 to 5 mm = a					
Face on ORLO	H R H I, I	o 1/2 of lateral chest		5 to 10 mm = b > $10 \text{ mm} = c$					
Diaphragm O R L O	R L O	R	L	O R O L]				
Other site(s) ORL	R L 1	2 3 1	2 3	a b c a b	С				
3C. COSTOPHRENIC ANGLE OBLI	TERATION R	L Proceed to Section 3D	NO Proceed	to Section 4A					
3D. DIFFUSE PLEURAL THICKENI	NG (mark site, calcification, extent, and width)	in profi	(chest wall; combined for le and face on)	(3mm minimum width					
Site	Calcification		1/4 of lateral chest wall = 1/2 of lateral chest wall =	2 5 to 10 mm = b					
Chest wall In profile O R L	O R L		1/2 of lateral chest wall =	> 10 mm = c	O L				
Face on ORL	O R L	1 2	3 1 2 3	a b c	a b c				
4A. ANY OTHER ABNORMALITIES	5?	YES	Complete Sections 4B-	-E and 5. NO Con	mplete Section 5.				
5. NIOSH Reader ID		READER'S	INITIALS	DATE OF READING (mm	-dd-yyyy)				
NIOSH				0 3 - 1 9 -	2 0 2 4				
(Leave ID Number blank if you are not a NIOSF	H A or B Reader)								
SIGNATURE		PRINTE	D NAME (LAST, FIRST	MIDDLE)					
				_					
STREET ADDRESS	CITY			STATE ZIP C	CODE				

EXAMINEE'S Name	(Loct First MI)
EXAMINEE 5 Name	Last, That will

4B. OTHER SYMBOLS (OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb						
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes						
at	significant apical pleural thickening	ho	honeycomb lung						
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than						
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected						
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart						
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than						
bu	bulla(e)		one-third of the length of the left heart border						
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines						
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma						
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis						
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity						
ср	cor pulmonale		with the pleura						
cv	cavity	pi	pleural thickening of an interlobar fissure						
di	marked distortion of an intrathoracic structure	px	pneumothorax						
ef	pleural effusion	ra	rounded atelectasis						
em	emphysema	rp	rheumatoid pneumoconiosis						
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis						
fr	fractured rib(s) (acute or healed)								

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATIO	ON
	FEDERAL MINE SAFETY AND HEALTH ACT OF 19 DEPARTMENT OF HEALTH AND HUMAN SERVICE	CES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVENTIC Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
68 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a single	gle radiograph by placing an "x" in the appropriate boxes on this Pneumoconiosis or Illustrated by the ILO Standard Radiographs.	
(If not Grade 1, mark all boxes that apply) Underexp Artifacts	osed (dark) Improper position Underinflation osed (light) Poor contrast Mottle Poor processing Excessive Edge Enhancement	Scapula Overlay Other (please specify)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES	Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY D S T U T U T U T U	b. ZONES R L UPPER	SIZE O A C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES	Complete Sections NO Proceed to Section 4A
	R L Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L C R C C C C C C C C	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLIT	TERATION R L Proceed to Section 3D NO Procee	d to Section 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile Face on O R L	extent, and width) Calcification ORL ORL in profile and face on) Up to 1/4 of lateral chest wall = 1/4 to 1/2 of lateral chest wall > 1/2 of lateral chest wall ORR ORR ORR ORR ORR ORR ORR	(3mm minimum width required) 1
4A. ANY OTHER ABNORMALITIES	? YES Complete Sections 4F	3-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST	T MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS ((OBLIGATORY)	

	px ra rp tb									
aa atherosclerotic aorta hi enlargement of non-calcified hilar or me	ediastinal lymph nodes									
at significant apical pleural thickening ho honeycomb lung										
ax coalescence of small opacities - with margins of the small opacities id ill-defined diaphragm border - should be	e recorded only if more than									
remaining visible, whereas a large opacity demonstrates a one-third of one hemidiaphragm is affect	ted									
homogeneous opaque appearance - may be recorded either in the ill ill-defined heart border - should be recorded										
presence or in the absence of large opacities border affected, whether on the right or of	on the left side, is more than									
bu bulla(e) one-third of the length of the left heart be	order									
ca cancer, thoracic malignancies excluding mesothelioma kl septal (Kerley) lines	septal (Kerley) lines									
cg calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes me mesothelioma	mesothelioma									
cn calcification in small pneumoconiotic opacities pa plate atelectasis	plate atelectasis									
co abnormality of cardiac size or shape pb parenchymal bands - significant parench	parenchymal bands - significant parenchymal fibrotic stands in continuity									
cp cor pulmonale with the pleura										
cv cavity pi pleural thickening of an interlobar fissure	e									
di marked distortion of an intrathoracic structure px pneumothorax										
ef pleural effusion ra rounded atelectasis										
em emphysema rp rheumatoid pneumoconiosis										
es eggshell calcification of hilar or mediastinal lymph nodes tb tuberculosis										
fr fractured rib(s) (acute or healed)										

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe	
	☐ Hiatal hernia		Density, lung	
	Airway Disorders		☐ Infiltrate	
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion	
	Hyperinflation		Miscellaneous Abnormalities	
	Bony Abnormalities		☐ Foreign body	
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)		\square Cyst	
	□Fracture, not healed (non-rib)		Vascular Disorders	
	□Scoliosis		☐ Aorta, anomaly of	
	□Vertebral column abnormality		☐ Vascular abnormality	
	·		Date Physician or Worker notified? (mm-dd-yy	ууу)
4E.	Should worker see personal physician because of findings?	YES	NO X	
4D.	OTHER COMMENTS			

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN	SERVICES
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PREVIOUS Coal Workers' Health Surveillance Program National Institute for Occupational Safety and 1095 Willowdale Road, MS LB208	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	d. Morgantown, WV 26505 FAX: 304-285-6058	
69 - NIOSH Syllabus Answer	Key	TYPE OF READING $A \square B \square F \square$
		es on this form. Classify all appearances described in the ILO iographs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all Underex	osed (dark) Improper position Undering posed (light) Poor contrast Mottle	Other (please specify)
boxes that apply) Artifacts 2A. ANY CLASSIFIABLE PARENCH	Enhance	<u> </u>
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY	b. ZONES c. PROFUSION R L 0/- 0/0 0/1	2C. LARGE OPACITIES
p x p s q t x t r u	UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R L Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L C R C C C C C C C C	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLI	R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL ORL 1 2 3 1	n) (3mm minimum width required) chest wall = 1 chest wall = 2 chest wall = 3 (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4R	OTHER	SYMBOL	S (OBI	JGATORY)	

	aa	at	ax	bu	ca	cg	cn	co	ср	cv	aı	eī	em	es	Ir	1	nı	no	10	ın	KI	me	pa	рb	рı	px	ra	rp	το	
][
aa		ather	osclei	rotic a	orta										ł	ni		e	nlarge	ement	of no	n-cal	cified	l hilar	or m	edias	tinal	lympl	ı node	es
at		signi	ficant	apica	ıl pleu	ıral th	icken	ing							ŀ	10		h	oneyo	omb	lung									
ax		coale	scenc	e of s	mall o	opaci	ties -	with	margi	ins of	the sr	nall	opaci	ties	i	d		i	ll-defi	ned d	iaphra	agm t	ordei	- sho	ould b	e rec	orded	only	if mo	re than
		rema	ining	visibl	e, wh	ereas	a larg	ge o	pacity	demoi	nstrat	es a						0	ne-thi	rd of	one h	emid	iaphra	agm i	s affe	cted		·		
		homo	gene	ous o	paque	appe	aranc	e - 1	nay be	recor	ded e	ither	in th	e	i	h											only	if the	lengt	h of the heart
		prese	nce o	r in th	ie abs	ence	of lar	ge o	pacitie	es								b	border affected, whether on the right or on the left side, is more than								ore than			
bu		bulla(e)												one-third of the length of the left heart border																
ca		cance	er, the	oracic	malig	gnanc	ies ex	cluc	ling m	esothe	lioma	ı			1	d		s	eptal (Kerle	y) lin	ies								
cg		calci	fied n	on-pn	eumo	conic	otic no	odul	es (e.g	. granı	uloma	a) or	node	S	1	ne		n	nesoth	elion	ia									
cn		calci	ficatio	on in s	small	pneui	moco	nioti	c opac	ities					Ī	oa		р	olate at	telecta	asis									
co		abno	rmalit	ty of c	ardia	c size	or sh	ape							Ī	b		p	arencl	hymal	band	ls - si	gnific	ant p	arenc	hyma	al fibr	otic s	tands	in continuity
cp		cor p	ulmoi	nale														V	vith th	e plet	ıra									
cv		cavit	y												Ī	oi		р	leural	thick	ening	of ar	n inter	rlobar	fissu	ire				
di		mark	ed dis	stortio	n of a	an inti	rathor	acio	struct	ure						X		p	neum	othora	ax									
ef		pleur	al eff	usion											r	a		r	ounde	d atel	ectasi	S								
em		emph	ysem	ıa											r	р		r	heuma	atoid p	oneun	nocor	niosis							
es		eggsl	nell ca	alcific	ation	of hil	lar or	med	liastina	al lym	ph no	des				b		t	ubercu	ılosis										
fr		fracti	ired r	ib(s) ((acute	or he	ealed)																							

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm Eventration Hiatal hernia	Lung Parenchymal Abnormalities Azygos lobe
	Airway Disorders ☐ Bronchovascular markings, heavy or increased	☐ Density, lung ☐ Infiltrate ☐ Nodule, nodular lesion
	☐ Hyperinflation Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body
	☐Bony chest cage abnormality ☐Fracture, healed (non-rib)	Post-surgical changes/sternal wire
	□ Fracture, not healed (non-rib) □ Scoliosis	Vascular Disorders ☐ Aorta, anomaly of
	□Vertebral column abnormality	☐ Vascular abnormality
4E.	Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyyy YES NO
4D.	OTHER COMMENTS	

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIO	GRAPH CLASSIFIC	CATION	
	DEPARTMENT OF I	FETY AND HEALTH ACHEALTH AND HUMAN	SERVICES	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number			OSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)		rgantown, WV 26505 AX: 304-285-6058		-
70 - NIOSH Syllabus Answer	Key		TYPE OF I	READING F
Note: Please record your interpretation of a sir International Classification of Radiographs of			es on this form. Classify all a	appearances described in the ILO
1. IMAGE QUALITY Overexp	posed (dark) Impre	oper position Underin	nflation Scap	ula Overlay
	aposed (light) Poor	contrast Mottle	Other (ple	ase specify)
(If not Grade 1, mark all boxes that apply) Artifacts	s Poor	processing Excessing Enhance	ive Edge	
2A. ANY CLASSIFIABLE PARENCH	IYMAL ABNORMALITU	ES?	YES Complete 2B and 20	
2B. SMALL OPACITIES a. SHAPE/SIZE	b. ZONES	c. PROFUSION	2C. LARGE OPACI	TIES
PRIMARY SECONDARY P S P S Q t Q t T U T U	R L UPPER MIDDLE LOWER	1/0 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+	SIZE O A	B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?		YES Complete 3B, 3C	Sections NO Proceed to Section 4A
	In pro Up to	t (chest wall; combined for offile and face on) 1/4 of lateral chest wall = 1 1/2 of lateral chest wall = 2 1/2 of lateral chest wall = 3 R O L 2 3 1 2 3	Width (in profile of (3mm minimum w 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c	
3C. COSTOPHRENIC ANGLE OBLI	TERATION R	Proceed to Section 3D NO	Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	(mark site, calcification, extent, and width) Calcification ORL ORL	Extent (chest wall; c in profile and face o Up to 1/4 of lateral 1/4 to 1/2 of lateral > 1/2 of lateral R 1 2 3	(3mm m) (3mm m) chest wall = 1 chest wall = 2 to 10 r chest wall = 3 to 5 r chest wall = 3	nm = b nm = c
4A. ANY OTHER ABNORMALITIES	5?	YES Complete	Sections 4B-E and 5. NO	Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	H A or B Reader)	READER'S INITIAL		DING (mm-dd-yyyy) 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	PRINTED NAME (L.	AST, FIRST MIDDLE) STATE	ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGA	TORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi l	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		□Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☐ Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		\Box Cyst
	☑ Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO X
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH	CLASSIFICATION	
	FEDERAL MINE SAFETY AN DEPARTMENT OF HEALTH	AND HUMAN SERVICES	
EXAMINEE'S Social Security Number	CENTERS FOR DISEASE COI Coal Workers' Health St National Institute for Occupa	rveillance Program tional Safety and Health	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
Full SSN is optional, last 4 digits are required	1095 Willowdale Ro Morgantown, V FAX: 304-28	WV 26505	FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)			TYPE OF READING
71 - NIOSH Syllabus Answer	Key		$A \square B \bowtie F \square$
Note: Please record your interpretation of a sin, International Classification of Radiographs of I			n. Classify all appearances described in the ILO symbols and record comments as appropriate.
1. IMAGE QUALITY Overexpo	osed (dark) Improper position	n Underinflation	Scapula Overlay
	posed (light) Poor contrast	Mottle	Other (please specify)
(If not Grade 1, mark all boxes that apply) Artifacts	Poor processing	Excessive Edge Enhancement	
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES	Complete Sections 2B and 2C NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE	b. ZONES	DEFUSION 2C. LA	ARGE OPACITIES
PRIMARY SECONDARY P S P S Q t Q t T U T U	MIDDLE	00 01 1/1 1/2 SIZE 2/2 2/3 3/3 3/+	O A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES	Complete Sections NO Proceed to Section 4A
	R L Extent (chest wall; in profile and face Up to 1/4 of lateral 1/4 to 1/2 of lateral N L O R L O R L O R L O R L O R L O R O R	on) (3 chest wall = 1 l chest wall = 2 l chest wall = 3 O L	Width (in profile only) Bmm minimum width required) 3 to 5 mm = a to 10 mm = b > 10 mm = c O R O L a b c a b c
3C. COSTOPHRENIC ANGLE OBLIT	TERATION R L Proceed Section	NO Decord to 0	Section 4A
3D. DIFFUSE PLEURAL THICKENING Site Chest wall In profile O R L Face on O R L		Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 R O L 2 3 1 2 3	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O R O L a b c a b c
4A. ANY OTHER ABNORMALITIES	? YE	Complete Sections 4B-E a	nd 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH			OATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	CITY	RINTED NAME (LAST, FIRST MI	DDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4R	OTHER	SVMROL	S (OBLIGATORY)	
41).	CHILLIAN	O LIVIDOLI		

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	ERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVE Coal Workers' Health Surveillance Program National Institute for Occupational Safety and He 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
72 - NIOSH Syllabus Answer	Key	TYPE OF READING $ A \square B \square F \square $
	gle radiograph by placing an "x" in the appropriate boxes of Pneumoconiosis or Illustrated by the ILO Standard Radiog	on this form. Classify all appearances described in the ILO
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancem	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P S P S U t q t u u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification	Width (in profile only) (3 mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sec	ctions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST	T, FIRST MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DA	TE O	F RADI	OGR.	APH ((mP -dG\	.\\\)	CHEST RAD	IOGR	APH C	LASSIFI	CATIC	N				
							FEDERAL MINI DEPARTMENT	OF HEA	ALTH AN	D HUMAN	SERVIC	ES				
EX	AMI	NEE'S S	ocial (Securi	ity Numb	er		orkers' H	ealth Surve	illance Progr	ram	0.	MB No.: 09 DC/NIOSH		REV. 02/	2019
							National Ins			al Safety and MS LB208	d Health		ILITY Nui	` /		
Ful	l SSN	is option	onal, l	ast 4	digits are	e require	ed.	_	town, WV: 304-285-6			П		\Box		
EX.	AMIN	NEE'S N	ame (Last,	, First Ml	I)										
73	3 - N	NIOSI	H Sy	/llat	ous Ar	nswer	Key						PE OF REA			
	ternat	tional Cl	assific	ation	of Radiog		ngle radiograph by pla Pneumoconiosis or Ill									
	1.	IMAC	E QU	JALIT	ГҮ 📗	Overexp	osed (dark)	Improper	position	Under	inflation		Scapula (Overlay		
	L		3	U/R		Underex	posed (light)	Poor con	trast	Mottle	e	Oth	ner (please s	specify)		
	,	f not Grad oxes that a	,	ırk all		Artifacts		Poor pro	cessing		sive Edge					
	2A.	ANY	CLAS	SIFL	ABLE PA	RENCH	YMAL ABNORMA	LITIES?			YES		Complete Sect B and 2C	ions N		Proceed to Section 3A
	2B.	SMA		PACI' APE/SI			b. ZONES		c. PROFUS	SION	2C.	LARGE (OPACITIE	S		
		PRIM		SE	ECONDARY		R L UPPER	ı	1/0 1/1	1/2						
		q	t		p s q t		MIDDLE		2/1 2/2	2/3		SIZE O	A B	С	Proceed Section 3	
		r	u	F	r u		LOWER		3/2 3/3	3/+						
H	3A.	ANY	CLAS	SIFL	ABLE PI	EURAL	ABNORMALITIES	?					Complete Sect	ions		Proceed to
	JA.					LCKIL		·			YES		B, 3C	ions NO) I X I	Section 4A
	3B.	PLEU Chest wa		PLA	QUES (Site		calcification, extent, and lcification		est wall; com	bined for	1		profile only)			
			rofile	O	R L	O	R L	Up to 1/4	and face on) of lateral che			3 to 5 mr		equired)		
		Fac	e on	O	R	O	R L		of lateral che			5 to 10 mr > 10 mr				
		Diaphra	ıgm	O	RL	О	RL	O R] [O L		O R] [O L		
		Other s	ite(s)	O	R L	O	RL	1 2	3	1 2 3		a b	С	a b	c	
	3C.	COS	горн	REN	IC ANGI	E OBLI	TERATION	R L	Proceed to Section 3D	NO	Procee	d to Section 4	ŀA			
	3D.	DIFF	USE I	PLEU	RAL TH	ICKENI	NG (mark site, calcifica	ıtion,		nt (chest wall; ofile and face			Width (in pro (3mm minimi		quired)	
					Site		extent, and width)		Up	to 1/4 of latera to 1/2 of latera	al chest wall	I	3 to 5 mm = 5 to 10 mm =			
		Chest w			П		Calcification			> 1/2 of latera	al chest wall	- 1	> 10 mm =	c		
		•	orofile	0	K L				OR			_ L	O R	[リ <u>レ</u> コロコロ	
_		гас	e on	U	KL		UKL			3	1 2	3 [a b	<u>c</u>	a b	<u>c</u>
	4A.	ANY	отні	ER Al	BNORM	ALITIES	3?		YES	Complet	te Sections 4F	B-E and 5.	NO	Comp	lete Sectio	n 5.
	5	NIOS	H Re	ader l	D				READER	R'S INITIA	LS	DATEC	F READIN	IG (mm-d	d-yyyy)	
	N	l I	Ο	S	Н							0 3	- 1 9	9 - 2	2 0 2	2 4
	(Le	ave ID N	ımber l	olank it	f you are no	ot a NIOSI	H A or B Reader)	_		1	•					
	SIC	GNATUR	Е					_	PRIN	ΓED NAME (I	LAST, FIRS	Γ MIDDLE)				
														T		

STATE

ZIP CODE

CITY

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4R	OTHER	SVMROI	S (OBI	JGATORY)	
4D.	OTHER	O LIVIDUL	ഹ ധാവ	JULATURIT	

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities	
	Hiatal hernia	☐ Azygos lobe	
	Airway Disorders	□Density, lung □Infiltrate	
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion	
	☐ Hyperinflation	Miscellaneous Abnormalities	
	Bony Abnormalities	☐ Foreign body	
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire	
	Fracture, healed (non-rib)	□Cyst	
	□Fracture, not healed (non-rib)	Vascular Disorders	
	□ Scoliosis	☐ Aorta, anomaly of	
	☐ Vertebral column abnormality	☐ Vascular abnormality	
		Date Physician or Worker notified? (mm-	dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES NO NO	
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required.	CENTERS FOR DISEASE CONTROL & PREVENTION Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019 FACILITY Number - Unit Number
EXAMINEE'S Name (Last, First MI)	FAX: 304-285-6058
75 - NIOSH Syllabus Answer	TYPE OF READING A B F □
	ele radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearances described in the ILO reumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record comments as appropriate.
	sed (dark)
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES? YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p p s q t q x r u r u	D. ZONES C. PROFUSION
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES? YES Complete Sections NO Proceed to Section 4A
	alcification, extent, and width) infication Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3
3C. COSTOPHRENIC ANGLE OBLIT	Section 3D No Z
Site Chest wall In profile Face on R L	Extent (chest wall; combined for in profile and face on) Calcification ORL ORL UExtent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 > 1/2 of lateral chest wall = 3 ORL ORL UExtent (chest wall; combined for in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c ORR ORR ORR ORR ORR ORR ORR O
4A. ANY OTHER ABNORMALITIES	YES Complete Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS DATE OF READING (mm-dd-yyyy) 0 3 - 1 9 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE ZIP CODE

4R	OTHER	SVMROL	S (OBLIGATORY)	
41).	CHILLIAN	O LIVIDOLI		

	aa at ax bu ca cg cn co cp cv di ef em es	tr hi l	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale	•	with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☑ Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□Nodule, nodular lesion
	☐ Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		☑ Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		□Cyst
	Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		☐ Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
	·		Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES X	NO
4D.	OTHER COMMENTS		

3 cm density behind R heart, possible mass. Note: same image as #21 and #34.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	TION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	RVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVE Coal Workers' Health Surveillance Program National Institute for Occupational Safety and Hea 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
76 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a single	gle radiograph by placing an "x" in the appropriate boxes or neumoconiosis or Illustrated by the ILO Standard Radiogr	
(If not Grade 1, mark all boxes that apply) Underexp Artifacts	osed (dark) Improper position Underinflat osed (light) Poor contrast Mottle Poor processing Excessive I Enhancement	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY P T U T U	b. ZONES R L UPPER	2C. LARGE OPACITIES SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	R L Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 3 R L C R C C C C C C C C	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLIT	Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENIN Site Chest wall In profile O R L Face on O R L	Extent (chest wall; comb in profile and face on) Up to 1/4 of lateral ches 1/4 to 1/2 of lateral ches O R L O R L	(3mm minimum width required) 3 to 5 mm = a st wall = 2 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sect	tions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 2 1 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST,	, FIRST MIDDLE) STATE STATE ZIP CODE

PALAMETER	TA T	/T /	T' (MI)	
EXAMINEE'S	Name	(Last.	First MII)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
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	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
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cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICAT	ΓΙΟΝ
	FEDERAL MINE SAFETY AND HEALTH ACT C DEPARTMENT OF HEALTH AND HUMAN SER	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require		OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
XAMINEE'S Name (Last, First MI)	FAX: 304-285-6058	
77 - NIOSH Syllabus Answer	Key	TYPE OF READING A ☐ B ☑ F ☐
	gle radiograph by placing an "x" in the appropriate boxes on Pneumoconiosis or Illustrated by the ILO Standard Radiogra	
	posed (dark) Improper position Underinflation posed (light) Poor contrast Mottle Poor processing Excessive Enhancement	Other (please specify)
2A. ANY CLASSIFIABLE PARENCH		YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p p p q t q t r u r u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) cification R L R L R L R L R L R L R L R	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c O D C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO P	roceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile O R L Face on O R L	Calcification ORL RL Extent (chest wall; combining profile and face on) Up to 1/4 of lateral chest 1/4 to 1/2 of lateral chest > 1/2 of lateral chest ORL 1 2 3 1 2	(3mm minimum width required) wall = 1
4A. ANY OTHER ABNORMALITIES	? YES Complete Section	ons 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 2 1 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, I	FIRST MIDDLE) STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4R	OTHER	SYMBOL	S (OBLIGATORY)
41).	OTHER	O I WIDOL	W CODIACIA ION II

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi ł	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia	Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
Airway Disorders ☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation	☐ Infiltrate ☐ Nodule, nodular lesion
Bony Abnormalities	Miscellaneous Abnormalities ☐ Foreign body ☐ Post-surgical changes/sternal wire
☐Bony chest cage abnormality ☐Fracture, healed (non-rib) ☐Fracture, not healed (non-rib)	☐ Cyst Vascular Disorders
☐Scoliosis ☐Vertebral column abnormality	☐ Aorta, anomaly of ☑ Vascular abnormality
4E. Should worker see personal physician because of findings?	Date Physician or Worker notified? (mm-dd-yyyy) YES NO NO
4D. OTHER COMMENTS	

Calcified aortic aneurysm.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLAS	SSIFICATION	
	FEDERAL MINE SAFETY AND HEA DEPARTMENT OF HEALTH AND H	UMAN SERVICES	
EXAMINEE'S Social Security Number Gull SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL Coal Workers' Health Surveilland National Institute for Occupational Sa 1095 Willowdale Road, MS Morgantown, WV 2650 FAX: 304-285-6058	te Program CD fety and Health LB208 FACII	IB No.: 0920-0020 C/NIOSH (M) 2.8 REV. 02/2019 LITY Number - Unit Number
79 - NIOSH Syllabus Answer	Kev		OF READING
Note: Please record your interpretation of a sin International Classification of Radiographs of	gle radiograph by placing an "x" in the approp	riate boxes on this form. Classif	
	osed (dark) Improper position osed (light) Poor contrast Poor processing Poor processing	Excessive Edge Enhancement	Scapula Overlay r (please specify) mplete Sections Proceed to
		YES 2B	and 2C NO Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY	b. ZONES R L UPPER	SIZE O	PACITIES B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?		mplete Sections NO Proceed to Section 4A
	R L Extent (chest wall; combined in profile and face on) Up to 1/4 of lateral chest wal 1/4 to 1/2 of lateral chest wal 2 of lateral chest wal 3 of lateral chest wal 4 to 1/2 of lateral chest wal 5 of lateral chest wal 6 of lateral chest wal 7 of lateral chest wal 8 of lateral chest wal 9 of lateral chest wal	(3mm minin 1 = 1 3 to 5 mm II = 2 5 to 10 mm	num width required) = a = b
3C. COSTOPHRENIC ANGLE OBLI	Proceed to Section 3D	NO Proceed to Section 4A	
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile Face on O R L	(mark site, calcification, extent, and width) in profile Up to 1/4	and face on) (3 of lateral chest wall = 1 2 of lateral chest wall = 2 2 of lateral chest wall = 3	idth (in profile only) mm minimum width required) to 5 mm = a to 10 mm = b > 10 mm = c O R O L a b c a b c a b c
4A. ANY OTHER ABNORMALITIES	? YES X	Complete Sections 4B-E and 5.	NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	A or B Reader)		FREADING (mm-dd-yyyy) - 2 1 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED 1	NAME (LAST, FIRST MIDDLE) STATE	ZIP CODE

EVAMI	JEDIC	Mara	(T aat	First MI)	
EAAMI	NEE 3	Name	(Last.	First IVII	1

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi	ho id ih kl me pa pb pi px ra rp tb
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es fr	eggshell calcification of hilar or mediastinal lymph nodes fractured rib(s) (acute or healed)	tb	tuberculosis

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration ☐ Hiatal hernia		Lung Parenchymal Abnormalities ☐ Azygos lobe ☐ Density, lung
	Airway Disorders		☐ Infiltrate
	Bronchovascular markings, heavy or increased		☐ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		Foreign body
	Bony chest cage abnormality		Post-surgical changes/sternal wire
	Fracture, healed (non-rib)		☐ Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	□Scoliosis		Aorta, anomaly of
	☐Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy)
4E.	Should worker see personal physician because of findings?	YES X	NO
4D.	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICA	ATION
	FEDERAL MINE SAFETY AND HEALTH ACT DEPARTMENT OF HEALTH AND HUMAN SE	ERVICES
EXAMINEE'S Social Security Number Gull SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREVE Coal Workers' Health Surveillance Program National Institute for Occupational Safety and He 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
81 - NIOSH Syllabus Answer	Kev	TYPE OF READING
Note: Please record your interpretation of a sin	,	A B F III on this form. Classify all appearances described in the ILO graphs. Use symbols and record comments as appropriate.
(If not Grade 1, mark all boxes that apply) Underex Artifacts	Enhancem	Other (please specify) Edge
2A. ANY CLASSIFIABLE PARENCH	YMAL ABNORMALITIES?	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY S P t T u r u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	Calcification, extent, and width) Calcification	Width (in profile only) (3 mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c OR B C a b C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENII Site Chest wall In profile O R L Face on O R L	MG (mark site, calcification, extent, and width) Calcification ORL ORL 1 2 3 1	(3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b
4A. ANY OTHER ABNORMALITIES	? YES Complete Sec	ctions 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH	READER'S INITIALS A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 2 1 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST	T, FIRST MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi h	no id ih kl me pa pb pi px ra rp tb
[
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
ср	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration		Lung Parenchymal Abnormalities ☐ Azygos lobe
	☐ Hiatal hernia		Density, lung
	Airway Disorders		☐ Infiltrate
	☐ Bronchovascular markings, heavy or increased		□ Nodule, nodular lesion
	Hyperinflation		Miscellaneous Abnormalities
	Bony Abnormalities		☐ Foreign body
	☐Bony chest cage abnormality		Post-surgical changes/sternal wire
	☐Fracture, healed (non-rib)		□Cyst
	☐Fracture, not healed (non-rib)		Vascular Disorders
	Scoliosis		Aorta, anomaly of
	☐ Vertebral column abnormality		☐ Vascular abnormality
			Date Physician or Worker notified? (mm-dd-yyyy
4E.	Should worker see personal physician because of findings?	YES	NO NO
4 D	OTHER COMMENTS		

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFICATION	
	FEDERAL MINE SAFETY AND HEALTH ACT OF 1977 DEPARTMENT OF HEALTH AND HUMAN SERVICES	
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are required EXAMINEE'S Name (Last, First MI)	National Institute for Occupational Safety and Health 1095 Willowdale Road, MS LB208 FACILITY Number	2.8 REV. 02/2019
82 - NIOSH Syllabus Answer I	Kev Type of readin	₹G ¬
Note: Please record your interpretation of a sing	gle radiograph by placing an "x" in the appropriate boxes on this form. Classify all appearance preumoconiosis or Illustrated by the ILO Standard Radiographs. Use symbols and record control to the symbols and r	
	osed (dark) Improper position Underinflation Scapula Overloosed (light) Poor contrast Mottle Other (please special Excessive Edge Enhancement YMAL ABNORMALITIES? Complete Sections	•
	YES 2B and 2C	NO Section 3A
q t q X	b. ZONES R L UPPER MIDDLE LOWER 3/2 3/3 3/4 C. PROFUSION O/- 0/0 0/1 VI 1/2 SIZE A B O A	Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL A	ABNORMALITIES? YES Complete Sections 3B, 3C	NO Proceed to Section 4A
	R L	L b c
3C. COSTOPHRENIC ANGLE OBLIT	TERATION R L Proceed to Section 3D NO Proceed to Section 4A	
Site Chest wall In profile Face on O R L	Extent (chest wall; combined for in profile and face on) Up to 1/4 of lateral chest wall = 1 1/4 to 1/2 of lateral chest wall = 2 5 to 10 mm = 6 1/2 of lateral chest wall = 3 0 R L 0 R L 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 3 2 3 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
4A. ANY OTHER ABNORMALITIES?	YES Complete Sections 4B-E and 5. NO	Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSH A		nm-dd-yyyy) - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LAST, FIRST MIDDLE) CITY STATE Z	IP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4R	OTHER	SVMROI	S (OBLIGATORY)	
4D.	OTHER	\mathbf{o} i wideh	M CODUCIA FOR FI	

	aa at ax bu ca cg cn co cp cv di ef em es	fr hi l	ho id ih kl me pa pb pi px ra rp tb
[X000000000000		
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes
at	significant apical pleural thickening	ho	honeycomb lung
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than
bu	bulla(e)		one-third of the length of the left heart border
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis
co	abnormality of cardiac size or shape	pb	parenchymal bands - significant parenchymal fibrotic stands in continuity
cp	cor pulmonale		with the pleura
cv	cavity	pi	pleural thickening of an interlobar fissure
di	marked distortion of an intrathoracic structure	px	pneumothorax
ef	pleural effusion	ra	rounded atelectasis
em	emphysema	rp	rheumatoid pneumoconiosis
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis
fr	fractured rib(s) (acute or healed)		

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

Abnormalities of the Diaphragm Eventration Hiatal hernia Airway Disorders	Lung Parenchymal Abnormalities Azygos lobe Density, lung
☐ Bronchovascular markings, heavy or increased ☐ Hyperinflation	☐ Infiltrate ☐ Nodule, nodular lesion Miscellaneous Abnormalities
Bony Abnormalities □Bony chest cage abnormality □Fracture, healed (non-rib) □Fracture, not healed (non-rib) □Scoliosis □Vertebral column abnormality	☐ Foreign body ☐ Post-surgical changes/sternal wire ☐ Cyst Vascular Disorders ☐ Aorta, anomaly of ☐ Vascular abnormality
4E. Should worker see personal physician because of findings?4D. OTHER COMMENTS	Date Physician or Worker notified? (mm-dd-yyyy) YES NO NO

Healed fracture R clavicle.

DATE OF RADIOGRAPH (mP -dG\\\\)	CHEST RADIOGRAPH CLASSIFIC	CATION
	FEDERAL MINE SAFETY AND HEALTH AC DEPARTMENT OF HEALTH AND HUMAN S	SERVICES
EXAMINEE'S Social Security Number Full SSN is optional, last 4 digits are require EXAMINEE'S Name (Last, First MI)	CENTERS FOR DISEASE CONTROL & PREV Coal Workers' Health Surveillance Program National Institute for Occupational Safety and I 1095 Willowdale Road, MS LB208 Morgantown, WV 26505 FAX: 304-285-6058	OMB No.: 0920-0020 CDC/NIOSH (M) 2.8 REV. 02/2019
83 - NIOSH Syllabus Answer	Key	TYPE OF READING $A \square B \square F \square$
		es on this form. Classify all appearances described in the ILO ographs. Use symbols and record comments as appropriate.
	Enhance	Other (please specify) ve Edge ement
ZA. ANI CLASSIFIABLE FARENCII	IMAL ADNORWALITIES:	YES Complete Sections NO Proceed to Section 3A
2B. SMALL OPACITIES a. SHAPE/SIZE PRIMARY SECONDARY p q t q t r u r u	b. ZONES R L UPPER	SIZE A B C Proceed to Section 3A
3A. ANY CLASSIFIABLE PLEURAL	ABNORMALITIES?	YES Complete Sections NO Proceed to Section 4A
	calcification, extent, and width) Continuous continu	Width (in profile only) (3mm minimum width required) 3 to 5 mm = a 5 to 10 mm = b > 10 mm = c R B C B C D C
3C. COSTOPHRENIC ANGLE OBLI	TERATION R L Proceed to Section 3D NO	Proceed to Section 4A
3D. DIFFUSE PLEURAL THICKENI Site Chest wall In profile Face on O R L	NG (mark site, calcification, extent, and width) Calcification ORL ORL ORL 1 2 3 1	(3mm minimum width required) chest wall = 1 $3 \text{ to } 5 \text{ mm} = a$ chest wall = 2 $5 \text{ to } 10 \text{ mm} = b$
4A. ANY OTHER ABNORMALITIES	? YES Complete	Sections 4B-E and 5. NO Complete Section 5.
5. NIOSH Reader ID N I O S H (Leave ID Number blank if you are not a NIOSE	READER'S INITIALS [A or B Reader)	DATE OF READING (mm-dd-yyyy) 0 3 - 2 1 - 2 0 2 4
SIGNATURE STREET ADDRESS	PRINTED NAME (LA	AST, FIRST MIDDLE) STATE STATE ZIP CODE

EXC. MINIEPIG M	(T . T.' . 3 (T)
EXAMINEE'S Name ((Last, First MI)

4B.	OTHER	SYMBOLS	(OBLIGATORY)	,

a	a at ax bu ca cg cn co cp cv di ef em es	fr hi l	no id ih kl me pa pb pi px ra rp tb	
\triangleright				
aa	atherosclerotic aorta	hi	enlargement of non-calcified hilar or mediastinal lymph nodes	
at	significant apical pleural thickening	ho	honeycomb lung	
ax	coalescence of small opacities - with margins of the small opacities	id	ill-defined diaphragm border - should be recorded only if more than	
	remaining visible, whereas a large opacity demonstrates a		one-third of one hemidiaphragm is affected	
	homogeneous opaque appearance - may be recorded either in the	ih	ill-defined heart border - should be recorded only if the length of the heart	
	presence or in the absence of large opacities		border affected, whether on the right or on the left side, is more than	
bu	bulla(e)		one-third of the length of the left heart border	
ca	cancer, thoracic malignancies excluding mesothelioma	kl	septal (Kerley) lines	
cg	calcified non-pneumoconiotic nodules (e.g. granuloma) or nodes	me	mesothelioma	
cn	calcification in small pneumoconiotic opacities	pa	plate atelectasis	
co	abnormality of cardiac size or shape		parenchymal bands - significant parenchymal fibrotic stands in continuity	
ср	cor pulmonale		with the pleura	
cv	cavity	pi	pleural thickening of an interlobar fissure	
di	marked distortion of an intrathoracic structure	px	pneumothorax	
ef	pleural effusion	ra	rounded atelectasis	
em	emphysema	rp	rheumatoid pneumoconiosis	
es	eggshell calcification of hilar or mediastinal lymph nodes	tb	tuberculosis	
fr	fractured rib(s) (acute or healed)			

4C. MARK ALL BOXES THAT APPLY: (Use of this list is intended to reduce handwritten comments and is optional)

	Abnormalities of the Diaphragm ☐ Eventration	Lung Parenchymal Abnormalities ☐ Azygos lobe		
	☐ Hiatal hernia	Density, lung		
Airway Disorders		☐ Infiltrate		
	☐ Bronchovascular markings, heavy or increased	□ Nodule, nodular lesion		
	☐ Hyperinflation	Miscellaneous Abnormalities		
	Bony Abnormalities	☐ Foreign body		
	☐Bony chest cage abnormality	☐ Post-surgical changes/sternal wire		
	Fracture, healed (non-rib)	□Cyst		
	□Fracture, not healed (non-rib)	Vascular Disorders		
	Scoliosis	Aorta, anomaly of		
	☐ Vertebral column abnormality	☐ Vascular abnorma	llity	
		Date Physician	n or Worker notified? (mm-dd-yyyy)	
4E.	Should worker see personal physician because of findings?	ES NO NO		
4D.	OTHER COMMENTS			