



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH — ALOSH
944 CHESTNUT RIDGE ROAD
MORGANTOWN, WEST VIRGINIA 26505

December 12, 1978

RECEIVED
DEC 13 1978
UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. M. W. Glenn, Jr.
P.O. Drawer F
Chatsworth, GA 30705

Dear Mr. Glenn:

The preliminary evaluation of the environmental data collected as part of the industry-wide study of talc miners and millers has been completed.

The analysis of your Van Horn facility is included. This facility has been designated as plant number 11. This code number is unique to this facility and will appear on all summaries of data.

The respiratory dust samples were collected and analyzed according to NIOSH method SDS #29.02. This is listed in Table I.

The asbestos samples were collected and analyzed according to NIOSH method P and CAM #239. This is reported in Table II.

The crystalline silica samples were collected and analyzed according to NIOSH method P and CAM #109. This is reported in Table III.

The trace metal samples were collected and analyzed according to NIOSH method P and CAM #173. This is reported in Table IV.

The job classification codes for your facility are as follows:

JOB	CLASSIFICATION CODES
Bagger	1
Stacker	2
Fork lift operator	4
Mill operator	5
Laborer	6
Foreman	7
Front end loader operator	9
Maintenance	10
Miner	18
Crusher	29
Welder	30

PLAINTIFF'S
EXHIBIT
WCD-315



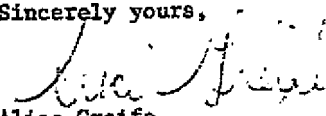
WCD000849

Mr. Glenn
December 12, 1978
Page 2

The arithmetic means of the respirable dust samples are given in Table V.

We would like to thank you for your cooperation in this project. If you have any questions concerning these results please feel free to contact me at (304) 599-7421.

Sincerely yours,



Alice Greife
Environmental Investigations Branch

AG:sp

Enclosure

Table I

PLANT=11				
OBS	WK	JOB	WORKER	DUST
109	113	1	6	1.47
110	113	1	12	1.82
111	113	1	17	10.73
112	114	2	16	1.61
113	116	4	20	3.03
114	116	4	25	1.75
115	116	5	14	38.39
116	116	6	5	0.37
117	116	6	7	0.92
118	116	6	9	0.43
119	116	7	18	0.36
120	116	9	10	2.92
121	116	10	11	2.34
122	116	10	13	3.43
123	116	10	15	3.41
124	116	10	21	0.87
125	116	10	22	1.63
126	206	18	23	0.11
127	206	18	24	0.20
128	126	29	8	1.69
129	116	30	19	8.51

Dust concentrations are expressed as mg/m^3

Plant 11

Table II
(asbestos)

Less than 1% fibrous tremolite present.

Table III

The bulk analysis of your talc revealed 2.5% free silica.

Table IV
(ug/sample)

Arithmetic Mean

Iron	Manganese	Calcium	Aluminum	Zinc	Nickle
7	<u>2</u>	227	13	<u>2</u>	<u>2</u>

Limit of Detection

2	2	2	5	2	2
---	---	---	---	---	---

Table V
(Arithmetic Means)

Job	$\bar{X}$ (mg/m ³)	SD	N
1	4.67	5.24	3
2	1.61	--	1
4	2.39	.91	2
5	38.39	--	1
6	.57	.30	3
7	.36	--	1
9	2.92	--	1
10	2.34	1.12	5
18	.16	.06	2
29	1.69	--	1
30	8.51	--	1

$\bar{X}$ = arithmetic mean SD = standard deviation N = number of workers in job classification



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL

November 30, 1978

NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH — ALOSH
944 CHESTNUT RIDGE ROAD
MORGANTOWN, WEST VIRGINIA 26505

Mr. M.W. Glenn, Jr.
P. O. Box Drawer F
Chatsworth, Georgia 30705

Dear Mr. Glenn:

Enclosed are preliminary tables of the medical data collected earlier this year. I have included the data from your individual mine and mill, as well as combined results from Texas. We will be doing a more extensive and detailed analysis of the data, including the results of before and after shift breathing tests, and comparison of pulmonary function, symptoms, and x-ray findings with control groups.

Pneumoconiosis is Grade 1 or greater of rounded or irregular opacities and pleural thickening is grade 1 and 2 as read by three radiologists using the standard ILO/UC films for pneumoconiosis. FEV₁ is Forced Expiratory Flow in one second, FVC is Forced Vital Capacity, and FEF₅₀ is Forced Expiratory Flow at 50% of FVC. Breathing obstruction is defined as an FEV₁/FVC ratio less than 70%. Cough is defined as answering yes to the question: "Do you usually cough first thing in the morning and/or during the day in the winter for as much as three months each year?" Bronchitis is defined as answering yes to the question: "Do you usually bring up any phlegm from your chest first thing in the morning in the winter and/or during the day in the winter?" Mild shortness of breath is defined as answering yes to the question: "Are you troubled by shortness of breath when hurrying on level ground or walking up a slight hill?" Moderate shortness of breath as answering yes to the question: "Do you get short of breath walking with other people of your own age on level ground?" Severe shortness of breath as answering yes to the question: "Do you have to stop for breath when walking at your own pace on level ground?"

If you have any questions, feel free to call me at (304) 599-7476.

Sincerely,

John F. Gamble, Ph.D., Chief,
Epidemiology & Statistics Section

Enclosure

cc: Mack Minyard
Superintendent, Pioneer
P.O. Box 121
Van Horn, Texas 79855

WCD000853

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 23 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE
PIONEER MINE

AGE EXPOSURE (YEARS)	<20	20-29	30-39	AGE 40-49	50-59	>=60	TOTAL
1. <24	0	0	0	0	0	0	0
2. 25-29	1	1	1	0	0	0	3
3. 30-39	0	0	0	0	0	0	0
4. 40-49	1	2	1	1	0	2	7
5. 50-59	0	0	0	0	0	0	0
6. >=60	0	0	0	0	0	0	0
TOTAL	1	2	1	1	0	2	7
7. 10-14	0	0	0	0	0	0	0
8. 15-19	0	0	0	0	0	0	0
9. 20-24	0	0	0	0	0	0	0
10. 25-29	0	0	0	0	0	0	0
11. 30-39	0	0	0	0	0	0	0
12. 40-49	0	0	0	0	0	0	0
13. 50-59	0	0	0	0	0	0	0
14. >=60	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0
15. 10-14	0	0	0	0	0	0	0
16. 15-19	0	0	0	0	0	0	0
17. 20-24	0	0	0	0	0	0	0
18. 25-29	0	0	0	0	0	0	0
19. 30-39	0	0	0	0	0	0	0
20. 40-49	0	0	0	0	0	0	0
21. 50-59	0	0	0	0	0	0	0
22. >=60	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

Handwritten: 3 of 23

Handwritten: 1 of 23

Handwritten: 0.9 of 23

PIONEER LINE

WITNESSES:

11

2



2

and

2

References

10-10-1994

2

5

PERCENT & NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 23 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

PIIONEER MINE

PIIONEER MINE

TALC. EXPOSURE YEARS	AGE																					TOTAL
	<20			20-29			30-39			40-49			50-59			>=60						
	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	
<4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-9	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-14		1	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-19							1	1	1													2
20-24							0						0									0
25-29										1			1									2
>=30													0			0			0			0
													1			2			1			4
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	3	2	4	1	2	2	2	1	2	1	2	1	2	1	4	4	13			

PERCENT SHOWN

N=NON-SHOWN

S=SHOWN

CELLS KEPT

PERCENT DIAGNOSED MASSIVE FIBROSIS

FORBEN DIAGNOSED MASSIVE FIBROSIS

NUMBER IN CATEGORY

PERCENT

NUMBER

SMOKER

PERCENT

DIAGNOSED MASSIVE FIBROSIS

NUMBER

DIAGNOSED MASSIVE FIBROSIS

NUMBER IN CATEGORY

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WCD000856

PIONEER WITH

PF550 IS IN CATEGORIES PFR SECOND
 PFI-SHOKER
 PFI-NON-SHOKER
 PFI-SHOKER
 CALLS KEY: HEAD PF550
 NUMBER IN CATEGORY

Quincy
function
(smoking word
had offer)

MEAN FEV1 FOR 25 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

PIONEER MINE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S			
<=4	531		352	451	300														491	300	352			
	1		1	1	1														2	1	1			
5-9			401	370	388	471			475										378	388	454			
			1	3	1	2			1										3	1	2			
10-14						389		461	305										461	347				
						1		1	1										1	2				
15-19						382						277	228	422					228	422	329			
						1						1	1	1					1	1	2			
20-24									365			310									339			
									1			1									2			
25-29																								
>=30												334		293				289			505			
												1		2				1			8			
TOTAL	531		776	396	344	428		461	381			308	228	422	293			289	390	392	561			
			2	4	2	4		2	2			2	1	1	2			1	6	4	13			

FEV1 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN FEV1

NUMBER IN CATEGORY

WCD0000558

PLAYER NAME

12 IS IN CONNECTIONS
=27-SMOKE
=H04-SMOKE
=SE04EN
CETS 2275
HEAN NYC
NUMBER IN

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 25 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

PIONEER MINE

AGE EXPOSURE (YEARS)	20-29					30-39					40-49					50-59					>=60					TOTAL		
	E	N	S	N	S	E	N	S	N	S	E	N	S	N	S	E	N	S	N	S	E	N	S	N	S	E	N	S
<=4	0		0	0	0																					0	0	0
5-9	1		1	1	1																					2	1	1
10-14			0	0	0	0				0																0	0	0
			1	1	1	2				1																3	1	4
15-19						0				0																0	0	0
20-24						1				1																1	1	2
25-29										1					1													2
30-34																												
35-39																												
40-44																												
45-49																												
50-54																												
55-59																												
60-64																												
65-69																												
70-74																												
75-79																												
80-84																												
85-89																												
90-94																												
95-99																												
TOTAL	0		0	0	0	0		0	0	0	0	0	0	0	0	1		100	0	0	0	0	0	0	0	0	0	0
	1		2	4	2	4		1	3	3	1	1	2	1	5	4	15											

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
NUMBER DIAGNOSED BREATHING OBSTRUCTION
NUMBER IN CATEGORY

WCD000860

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 25 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

PIONEER MINE

TALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S	P	N	S
<=5	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
5-9	0	0	0	33	100	0	0	0	100	0	0	0	0	0	0	0	0	0	33	100	25
	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4
10-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
15-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
>=30	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	25
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	0	0	0	25	100	0	0	0	33	0	0	0	50	0	0	0	0	0	17	50	13
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NON-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BRONCHITIS
NUMBER DIAGNOSED BRONCHITIS
NUMBER IN CATEGORY

WCD000861

PIONEER WIN

[illegible]

REF ID: A66666

CELLS KEY? STRESS DIAGNOSTIC CONCH
NUMBER DIAGNOSTIC CONCH
NUMBER TN CIRCULAR

NUMBER OF WORKERS WITH SHORTNESS OF BREATH FOR 25 WORKERS

PIONEER MINE

YALC EXPOSURE (YEARS)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<=4	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	002	0	001
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-9	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	002	001	004
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-14	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-19	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	002
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>=30	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	002
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0=NO SHORTNESS

1=MODERATE SHORTNESS

2=SEVERE SHORTNESS

CELLS KEY: NUMBER WITH NO SHORTNESS OF BREATH
NUMBER WITH MILD SHORTNESS OF BREATH
NUMBER WITH MODERATE SHORTNESS OF BREATH

WCD0000863

DEMOGRAPHIC DATA FOR 25 WORKERS

PIONEER MINE

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSURE	SEX		RACE			SMOKING STATUS *	
			PERCENT MALE	PERCENT FEMALE	PERCENT BLACK	PERCENT OTHER	PERCENT WHITE	PERCENT SMOKERS	PERCENT NONSMOKERS
EXPOSED	34.2	14.4	100.0	0.0	0.0	95.8	4.2	62.5	20.8
UNEXPOSED	18.0	.7	100.0	0.0	0.0	100.0	0.0	6.0	100.0
TOTALS	33.6	13.8	100.0	0.0	0.0	96.0	4.0	60.6	24.0

25 TAHC
WORKERS

NON-SMOKERS ARE THOSE WHO HAVE SMOKE LESS THAN 6 MONTHS
BY SMOKERS ARE THOSE WHO HAVE NOT BEEN SMOKING FOR THE PAST SIX MONTHS

PERCENT & NUMBER OF WORKERS WITH PNEUMOCONIOSIS FOR 69 WORKERS BY AGES SMOKING STATUS, & EXPOSURE

TEXAS REGION

AGE	<20				20-29				30-39				40-49				50-59				>=60				TOTAL	
	F	M	S	N	F	M	S	N	F	M	S	N	F	M	S	N	F	M	S	N	F	M	S	N	F	S
<4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	2	1	1	1																		2	2	3
5-9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	2	1	1	1	1	1	1	1				1	1								4	3	7
10-14																									0	20
																									2	5
15-19																									0	0
																									1	7
20-24																									0	0
																									0	0
25-29																									0	0
																									0	0
>=30																									3	3
																									0	0
TOTAL	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	2	3	3	5	4	1	10	3	2	0	5	2	0	1					2	1	1	1	1	20

NOT-SMOKER
NON-SMOKER
SMOKER

CPLS KEY: PERCENT DIAGNOSED PNEUMOCONIOSIS
NUMBER DIAGNOSED PNEUMOCONIOSIS
NUMBER IN CATEGORY

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STANDARD & SPECTROGRAPHIC
LABORATORY

WCD000865

TABLE 6 NUMBER OF WORKERS WITH MASSIVE FIBROSIS FOR 69 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

TEXAS REGION

FALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	P	H	S	P	H	S	P	H	S	P	H	S	P	H	S	P	H	S	P	H	S
<4	0	0	0	0	0	0													0	0	0
	1	1	2	1	1	1													2	2	3
5-9		0	0	0	0	0	0	0	0				0		0				0	0	0
		1	1	2	1	4	1	1	1				1		1				5	3	7
10-14							0		0	0									0	0	
							2		2	3									2	3	
15-19					0	0	0	0	0			0	0	0				0	0	0	0
					1	1	2	2	5			2	1	1				1	3	6	7
20-24					0	0		0	0			0						0			0
					1	1		1	2			1						3			6
25-29									0	0								0			0
									3	1								1			3
>=30										0	0	0	0	0	0	0		0	0	0	0
										2	1	5	1	5	1			1	6	3	7
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	3	3	1	9	4	3	11	2	2	4	5	2	5	1	1	11	13	18	24

EX-EXPOSER

H-NON-SMOKER

S-SMOKER

CELLS KEY: PERCENT DIAGNOSED MASSIVE FIBROSIS
NUMBER DIAGNOSED MASSIVE FIBROSIS
NUMBER IN CATEGORY

WCD000867

MEAN PEF50 FOR 60 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

TEXAS REGION

SARC EXPOSURE (YEARS)	≤20			20-29			30-39			AGE 40-49			50-59			≥60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<5	520	413	439	575	475	601													465	469	556
	1	1	2	1	1	1													2	2	3
5-9		362	453	482	568	522	550	479	713				239		164				451	460	498
		1	3	3	1	4	1	1	1				1		1				5	3	7
10-14						414		291	347										291	376	
						2		2	3												
15-19					693	561	503	389	571			421	315	563					440	508	522
					1	1	2	2	3			2	1	1					3	4	6
20-24						525	628		422	555		341							520		626
						1	1		4	2		1							3		5
25-29								394	507										507		394
								3	1										1		3
≥30										186	281	367	208	321	535		220	400	193	304	
										2	1	3	1	5	1		1	4	3	7	
TOTAL	520	413	439	575	578	539	585	368	652	480	186	373	335	335	295	531	220	480	385	432	
	1	2	3	4	3	2	4	5	14	3	2	8	5	2	6	1	1	10	18	37	

PEF50 IS IN CENTILITERS PER SECOND

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: MEAN PEF50
NUMBER IN CATEGORY

WCD000868

AGE	20-29	30-39	40-49	50-59	60+	TOTAL
ABC	1	1	1	1	1	5
XYZ	1	1	1	1	1	5
DEF	1	1	1	1	1	5
GHI	1	1	1	1	1	5
JKL	1	1	1	1	1	5
MNO	1	1	1	1	1	5
PQR	1	1	1	1	1	5
STU	1	1	1	1	1	5
VWX	1	1	1	1	1	5
YZA	1	1	1	1	1	5
BCD	1	1	1	1	1	5
EFG	1	1	1	1	1	5
HIJ	1	1	1	1	1	5
KLM	1	1	1	1	1	5
NOP	1	1	1	1	1	5
QRS	1	1	1	1	1	5
TUV	1	1	1	1	1	5
WXY	1	1	1	1	1	5
ZAB	1	1	1	1	1	5
CCD	1	1	1	1	1	5
EEF	1	1	1	1	1	5
GGH	1	1	1	1	1	5
IIJ	1	1	1	1	1	5
KKL	1	1	1	1	1	5
MMN	1	1	1	1	1	5
OOO	1	1	1	1	1	5
PPQ	1	1	1	1	1	5
RRR	1	1	1	1	1	5
SSS	1	1	1	1	1	5
TTT	1	1	1	1	1	5
UUU	1	1	1	1	1	5
VVV	1	1	1	1	1	5
WWW	1	1	1	1	1	5
XXX	1	1	1	1	1	5
YYY	1	1	1	1	1	5
ZZZ	1	1	1	1	1	5
AAA	1	1	1	1	1	5
BBB	1	1	1	1	1	5
DDD	1	1	1	1	1	5
EEE	1	1	1	1	1	5
FFF	1	1	1	1	1	5
GGG	1	1	1	1	1	5
HHH	1	1	1	1	1	5
III	1	1	1	1	1	5
JJJ	1	1	1	1	1	5
KKK	1	1	1	1	1	5
LLL	1	1	1	1	1	5
MMM	1	1	1	1	1	5
NNN	1	1	1	1	1	5
OOO	1	1	1	1	1	5
PPP	1	1	1	1	1	5
QQQ	1	1	1	1	1	5
RRR	1	1	1	1	1	5
SSS	1	1	1	1	1	5
TTT	1	1	1	1	1	5
UUU	1	1	1	1	1	5
VVV	1	1	1	1	1	5
WWW	1	1	1	1	1	5
XXX	1	1	1	1	1	5
YYY	1	1	1	1	1	5
ZZZ	1	1	1	1	1	5
AAA	1	1	1	1	1	5
BBB	1	1	1	1	1	5
CCC	1	1	1	1	1	5
DDD	1	1	1	1	1	5
EEE	1	1	1	1	1	5
FFF	1	1	1	1	1	5
GGG	1	1	1	1	1	5
HHH	1	1	1	1	1	5
III	1	1	1	1	1	5
JJJ	1	1	1	1	1	5

1ST 15-16 CATEGORIES ARE SECOND
 NEW-SHOPPER
 NON-SHOPPER
 = SHOPPER
 CALLS NEW
 NEW 1ST
 NUMBER IN CATEGORY

MEAN PVC FOR 69 WORKERS BY AGE, AND SMOKING STATUS, AND EXPOSURE

TEXAS REGION

CALC EXPOSURE (YEARS)	<20			20-29			30-39			40-49			50-59			>=60			TOTAL		
	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S	E	N	S
<5	660	502	475	484	325	500													572	418	497
	1	1	2	1	1	1													2	2	3
5-9		853	874	465	463	548	552	602	582				400		516				869	506	598
		1	1	3	1	4	1	1	1				1		1				5	3	7
10-14						487		542	491										562	489	
						2		2	3										2	5	
15-19					874	849	465	476	524			354	269	510					400	482	456
					1	1	2	2	3			2	1	1					3	4	5
20-24						386	422		481	500		390							474		450
						1	1		5	2		1							3		3
25-29									466	541									541		466
									3	1									1		3
>=30											435	450	432	381	367	401		449	425	417	391
											2	1	2	1	5	1		1	2	3	7
TOTAL	450	477	475	470	420	504	476	527	496	512	435	508	393	465	392	441		449	464	473	466
	1	2	3	4	1	9	4	5	14	3	2	4	3	2	6	7		1	18	16	37

PVC IS IN PERCENTAGE

NON-SHOKER

N=NON-SHOKER

S=SHOKER

CELLS ARE MEAN PVC
NUMBER IN CATEGORY

WCD000870

PERCENT & NUMBER OF WORKERS WITH BREATHING OBSTRUCTION FOR 69 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

TEXAS REGION

EXPOSURE (YEARS)	<20				20-29				30-39				40-49				50-59				>=60				TOTAL		
	P	R	S	E	P	R	S	E	P	R	S	E	P	R	S	E	P	R	S	E	P	R	S	E	P	R	S
<=4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>=30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

N=PE-SMOKER
 N=NON-SMOKER
 S=SMOKER

CELLS KEY: PERCENT DIAGNOSED BREATHING OBSTRUCTION
 NUMBER DIAGNOSED BREATHING OBSTRUCTION
 NUMBER IN CATEGORY

WCD000871

PERCENT & NUMBER OF WORKERS WITH BRONCHITIS FOR 71 WORKERS BY AGE & SMOKING STATUS, & EXPOSURE

TEXAS REGION

C EXPOSURE (Y/N)	<20			20-29			30-39			AGE 40-49			50-59			>=60			TOTAL		
	P	N	%	P	N	%	P	N	%	P	N	%	P	N	%	P	N	%	P	N	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<20	0	0	50	0	100	0													0	50	33
	1	1	2	1	1	1													2	2	3
5-9		0	0	25	100	0	0	0	100				0		0				20	33	14
		1	1	3	1	6	1	1	1				1		1				5	1	1
10-14																			0	0	0
						2		2	3										2	5	
15-19				0	0	50	0	0	0			0	50	0					0	50	0
				1	1	2	2	3				2	2	1					1	2	4
20-24						0	0		0	50		0							33		0
							1		4	2		1							3		6
25-29									0	0									0		0
									3	1									1		3
>=30										50	0	33	0	20	100				0	50	33
										1	1	1	1	1	1				2	1	1
										2	1	3	1	5	1				1	1	7
TOTAL	0	0	33	25	67	0	25	0	97	32	50	0	33	0	17	100		0	32	21	00
	1	2	3	4	1	9	0	5	10	3	2	4	5	2	5	1		4	19	16	10
Y-SMOKER																					
Y-DIAGNOSED																					
Y-CATEGORY																					
THIS ROW: PERCENT DIAGNOSED BRONCHITIS																					
NUMBER DIAGNOSED BRONCHITIS																					
NUMBER X CATEGORY																					

PERCENT & NUMBER OF WORKERS WITH COUGH FOR 74 WORKERS BY AGE, SMOKING STATUS, & EXPOSURE

TEXAS REGION

TALC EXPOSURE (YEARS)	430			20-29			30-39			40-49			50-59			>=60			TOTAL		
	N	E	S	N	E	S	N	E	S	N	E	S	N	E	S	N	E	S	N	E	S
0-4	0	0	50	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	23
	1	1	2	1	1	1													2	2	3
5-9	0	0	0	0	0	0	0	0	100				0	0	0				0	0	14
	1	1	2	1	1	1	1	1	1				1	1	1				5	3	7
10-14						50		0	0										0	0	20
						1		2	3										2	5	
15-19				0	0	50	0	33				0	50	0				0	50	0	14
				1	1	2	2	1	1			2	2	1				1	0	0	7
20-24				0	0		0	50				0							33		0
				1	1		1	1	1			1						1	1		
25-29								0	0										0		0
								3	1										1		3
30-34										50	0	33	0	20	100			0	50	33	74
										1	1	1	1	1	1			2	1	1	
										2	1	1	1	1	1			1	0	3	7
TOTAL	0	0	33	0	33	13	25	0	74	33	50	0	33	0	17	100		0	26	14	73
	1	2	1	0	1	1	1	0	5	14	1	2	1	1	1	1		5	2	5	
	1	2	1	0	1	1	1	0	5	14	1	2	1	1	1	1		5	2	5	

E=EX-SMOKER

N=NON-SMOKER

S=SMOKER

CELLS KEY: PERCENT DIAGNOSED COUGH

NUMBER DIAGNOSED COUGH

NUMBER IN CATEGORY

WCD000873

TEXAS REGION[illegible]

NOV-SMOKE
NOV-SMOKE
SMOKE
CELLS HAVE
ADUARY WITH NO SMOKELESS OF BREATH
NUMBER WITH WILD SMOKELESS OF BREATH
NUMBER WITH MODERATE SMOKELESS OF BREATH
NUMBER WITH SEVERE SMOKELESS OF BREATH

DEMOGRAPHIC DATA FOR 71 WORKERS

TEXAS REGION

PRINCIPAL WORK AREA	MEAN AGE	MEAN YEARS EXPOSED	PERCENT MALE	SEX		RACE			SMOKING STATUS		
				PERCENT FEMALE	PERCENT BLACK	PERCENT OTHER	PERCENT WHITE	PERCENT SMOKERS	PERCENT EX-SMOKERS	PERCENT NON-SMOKERS	PERCENT
EXPOSED	37.2	17.5	100.0	0.0	2.8	87.3	9.9	53.5	26.8	19.7	
UNEXPOSED	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	
TOTALS	37.2	17.5	100.0	0.0	2.8	87.3	9.9	53.5	26.8	19.7	

71 TALE WORKERS

0 OTHER WORK

NON-SMOKERS ARE THOSE WHO HAVE SMOKE LESS THAN 6 MONTHS
IN SHOPS ARE THOSE WHO HAVE NOT BEEN SMOKE FOR THE PAST SIX MONTHS