1		STATE OF NEW	MEXICO
2	ENERGY, MINERAL	S, AND NATURAL	RESOURCES DEPARTMENT
3	OI	L CONSERVATION	DIVISION
4			
5	IN THE MATTER OF	THE HEARING	
6	CALLED BY THE OIL	CONSERVATION	
7	DIVISION FOR THE	PURPOSE OF	
8	CONSIDERING:		
9	Case Nos. 24941,	24942, 24994,	
10	24995, 25115, 251	16, 25117,	
11	25145, 25146, 251	47, 25148.	
12			_
13		HEARING	ł
14	DATE: Tu	esday, January	28, 2025
15	TIME: 8:	59 a.m.	
16	BEFORE: He	aring Examiner	Gregory A. Chakalian
17	LOCATION: En	ergy, Minerals	, and Natural Resources
18	De	partment	
19	Pe	cos Hall, Wend	lell Chino Building
20	22	0 South Saint	Francis Drive
21	Sa	nta Fe, NM 875	05
22	REPORTED BY: Ja	mes Cogswell	
23	JOB NO.: 70	11524	
24			
25			
			Page 1

1	APPEARANCES
2	ON BEHALF OF PERMIAN RESOURCES OPERATING LLC AND XTO
3	ENERGY INC.:
4	ADAM G. RANKIN, ESQUIRE
5	PAULA M. VANCE, ESQUIRE
6	Holland & Hart LLP
7	110 North Guadalupe Street, Suite 1
8	Santa Fe, NM 87501
9	agrankin@hollandhart.com
10	pmvance@hollandhart.com
11	(505) 988-4421
12	
13	ON BEHALF OF V-F PETROLEUM INC.:
14	DARIN C. SAVAGE, ESQUIRE
15	Abadie & Schill, P.C.
16	214 McKenzie Street
17	Santa Fe, NM 87501
18	darin@abadieschill.com
19	(970) 385-4401
20	
21	
22	
23	
24	
25	
	Page 2
	1436 2

1	APPEARANCES (Cont'd)
2	ON BEHALF OF CAROLYN BEALL:
3	KAITLYN A. LUCK, ESQUIRE
4	P.O. Box 483
5	Taos, NM 87571
6	luck.kaitlyn@gmail.com
7	(361) 648-1973
8	
9	ALSO PRESENT:
10	Dean McClure, Technical Examiner (by
11	videoconference)
12	Christopher Cantin (by videoconference)
13	Sam Hamilton (by videoconference)
14	Jordan Shaw (by videoconference)
15	Stephen "Mike" Burke
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
	Page 3

1					
1	I N D E X				
2					PAGE
3	OPENING STATEMENT By Ms. Vance				51
4	OPENING STATEMENT By Mr. Savage				107
5					
6	WITNESSES:	DX	CX	RDX	RCX
7	CHRISTOPHER CANTIN				
8	By Ms. Vance	53		68	
9	By Mr. Savage		56		68
10	By Mr. McClure		64		
11	By Ms. Luck		66		
12	SAM HAMILTON				
13	By Ms. Vance	69		89	
14				101	
15				104	
16	By Mr. Savage		72		100
17					102
18	By Ms. Luck		86		
19	JORDAN SHAW				
20	By Mr. Savage	115		189	
21	By Ms. Vance		121		206
22	By Mr. McClure		168		205
23	By Mr. Rankin		181		
24					
25					
				Page	e 4

1	I N D E X	(Cont'd)			
2		DX	CX	RDX	RCX
3	STEVEN BURKE				
4	By Mr. Savage	209		232	
5	By Mr. Rankin		210		
6	By Mr. McClure		228		
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
				Page	e 5

1		EXHIBITS	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	Inc., Case 24994:	
4	Exhibit A	Self-Affirmed Statement of	
5		Jordan Shaw, Landman	37/37
6	Exhibit A-1	C-102 Forms	37/37
7	Exhibit A-2	Location Plat Map	37/37
8	Exhibit A-3	Tract Map and Ownership	
9		Breakdown	37/37
10	Exhibit A-4	Chronology of Contacts with	
11		Uncommitted Owners	37/37
12	Exhibit A-5	Well Proposal Letters and	
13		AFEs	37/37
14	Exhibit A-6	Sample Well Proposal for	
15		Ranier 16 15 Fed Com 211H	
16		Well	37/37
17	Exhibit A-7	Aerial View Map of	
18		Surrounding Development	37/37
19	Exhibit A-8	Permian Resources Slim Jim	
20		Well Proposals	37/37
21	Exhibit A-9	Plat for Tamano 15 AD Fed Co	m
22		1H Well	37/37
23	Exhibit B	Self-Affirmed Statement of	
24		Stephen Burke, Geologist	37/37
25	Exhibit B-1	Structure Maps	37/37
			Page 6

1		E X H I B I T S (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	<pre>Inc., Case 24994 (Cont'd):</pre>	
4	Exhibit B-2	Stratigraphic Cross-Section	37/37
5	Exhibit B-3	Gross Isopach	37/37
6	Exhibit B-4	Gun-Barrel View	37/37
7	Exhibit B-5	Structural Cross-Section	37/37
8	Exhibit C	Self-Affirmed Statement of	
9		Notice, Darin C. Savage	37/37
10	Exhibit C-1	Notice Letters	37/37
11	Exhibit C-2	Mailing List	37/37
12	Exhibit C-3	Affidavits of Publication	37/37
13			
14	V-F Petroleum	Inc., Case 24995:	
15	Exhibit A	Self-Affirmed Statement of	
16		Jordan Shaw, Landman	37/37
17	Exhibit A-1	C-102 Forms	37/37
18	Exhibit A-2	Location Plat Map	37/37
19	Exhibit A-3	Tract Map and Ownership	
20		Breakdown	37/37
21	Exhibit A-4	Chronology of Contacts with	
22		Uncommitted Owners	37/37
23	Exhibit A-5	Well Proposal Letters and	
24		AFEs	37/37
25			
			Dagg 7
			Page 7

1		EXHIBITS (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	Inc., Case 24995 (Cont'd):	
4	Exhibit A-6	Sample Well Proposal for	
5		Ranier 16-15 Fed Com 212H	
6		Well	37/37
7	Exhibit A-7	Aerial View Map of	
8		Surrounding Development	37/37
9	Exhibit A-8	Permian Resources Slim Jim	
10		Well Proposals	37/37
11	Exhibit A-9	Plat for Tamano 15 AD Fed	
12		Com 1H Well	37/37
13	Exhibit B	Self-Affirmed Statement of	
14		Stephen Burke, Geologist	37/37
15	Exhibit B-1	Structure Maps	37/37
16	Exhibit B-2	Stratigraphic Cross-Section	37/37
17	Exhibit B-3	Gross Isopach	37/37
18	Exhibit B-4	Gun-Barrel View	37/37
19	Exhibit B-5	Structural Cross-Section	37/37
20	Exhibit C	Self-Affirmed Statement of	37/37
21		Notice, Darin C. Savage	
22	Exhibit C-1	Notice Letters	37/37
23	Exhibit C-2	Mailing List	37/37
24	Exhibit C-3	Affidavits of Publication	37/37
25			
			Page 8

1		E X H I B I T S (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	Inc., Case 25115:	
4	Exhibit A	Self-Affirmed Statement of	
5		Jordan Shaw, Landman	38/38
6	Exhibit A-1	C-102 Forms	38/38
7	Exhibit A-2	Location Plat Map	38/38
8	Exhibit A-3	Tract Map and Ownership	
9		Breakdown	38/38
10	Exhibit A-4	Chronology of Contacts with	
11		Uncommitted Owners	38/38
12	Exhibit A-5	Well Proposal Letters and	
13		AFEs	38/38
14	Exhibit A-6	Sample Well Proposal for	
15		Rainier 16-15 Fed Com 214H	
16		Well	38/38
17	Exhibit A-7	Aerial View Map of	
18		Surrounding Development	38/38
19	Exhibit B	Self-Affirmed Statement of	
20		Stephen Burke, Geologist	38/38
21	Exhibit B-1	Structure Map	38/38
22	Exhibit B-2	Stratigraphic Cross-Section	38/38
23	Exhibit B-3	Gross Isopach	38/38
24	Exhibit B-4	Gun-Barrel View	38/38
25	Exhibit B-5	Structural Cross-Section	38/38
			Page 9

1			
1		EXHIBITS (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	<pre>Inc., Case 25115 (Cont'd):</pre>	
4	Exhibit C	Self-Affirmed Statement of	
5		Notice, Darin C. Savage	38/38
6	Exhibit C-1	Notice Letters	38/38
7	Exhibit C-2	Mailing List	38/38
8	Exhibit C-3	Affidavits of Publication	38/38
9			
10	V-F Petroleum	Inc., Case 25116:	
11	Exhibit A	Self-Affirmed Statement of	
12		Jordan Shaw, Landman	38/38
13	Exhibit A-1	C-102 Forms	38/38
14	Exhibit A-2	Location Plat Map	38/38
15	Exhibit A-3	Tract Map and Ownership	
16		Breakdown	38/38
17	Exhibit A-4	Chronology of Contacts with	
18		Uncommitted Owners	38/38
19	Exhibit A-5	Well Proposal Letters and	
20		AFEs	38/38
21	Exhibit A-6	Sample Well Proposal for	
22		Rainier 16-15 Fed Com 213H	
23		Well	38/38
24	Exhibit A-7	Aerial View Map of	
25		Surrounding Development	38/38
			Page 10

	EXHIBITS (Cont'd)	
NO.	DESCRIPTION	ID/EVD
V-F Petroleum	<pre>Inc., Case 25116 (Cont'd):</pre>	
Exhibit A-8	Permian Resources Slim Jim	
	Well Proposals	38/38
Exhibit A-9	Plat for Tamano 15 AD Fed	
	Com 1H Well	38/38
Exhibit B	Self-Affirmed Statement of	
	Stephen Burke, Geologist	38/38
Exhibit B-1	Structure Map	38/38
Exhibit B-2	Stratigraphic Cross-Section	38/38
Exhibit B-3	Gross Isopach	38/38
Exhibit B-4	Gun-Barrel View	38/38
Exhibit B-5	Structural Cross-Section	38/38
Exhibit C	Self-Affirmed Statement of	
	Notice, Darin C. Savage	38/38
Exhibit C-1	Notice Letters	38/38
Exhibit C-2	Mailing List	38/38
Exhibit C-3	Affidavits of Publication	38/38
V-F Petroleum	Inc., Case 25117:	
Exhibit A	Self-Affirmed Statement of	
	Jordan Shaw, Landman	38/38
Exhibit A-1	C-102 Forms	38/38
Exhibit A-2	Location Plat Map	38/38
		Page 11
	V-F Petroleum Exhibit A-8  Exhibit A-9  Exhibit B-1 Exhibit B-2 Exhibit B-3 Exhibit B-4 Exhibit B-5 Exhibit C  Exhibit C-1 Exhibit C-1 Exhibit C-2 Exhibit C-3  V-F Petroleum Exhibit A	NO. DESCRIPTION  V-F Petroleum Inc., Case 25116 (Cont'd):  Exhibit A-8 Permian Resources Slim Jim  Well Proposals  Exhibit A-9 Plat for Tamano 15 AD Fed  Com 1H Well  Exhibit B Self-Affirmed Statement of  Stephen Burke, Geologist  Exhibit B-1 Structure Map  Exhibit B-2 Stratigraphic Cross-Section  Exhibit B-3 Gross Isopach  Exhibit B-4 Gun-Barrel View  Exhibit B-5 Structural Cross-Section  Exhibit C Self-Affirmed Statement of  Notice, Darin C. Savage  Exhibit C-1 Notice Letters  Exhibit C-2 Mailing List  Exhibit C-3 Affidavits of Publication  V-F Petroleum Inc., Case 25117:  Exhibit A Self-Affirmed Statement of

1		E X H I B I T S (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	<pre>Inc., Case 25117 (Cont'd):</pre>	
4	Exhibit A-3	Tract Map and Ownership	
5		Breakdown	38/38
6	Exhibit A-4	Chronology of Contacts with	
7		Uncommitted Owners	38/38
8	Exhibit A-5	Well Proposal Letters and	
9		AFEs	38/38
10	Exhibit A-6	Sample Well Proposal for	
11		Rainier 16-15 Fed Com 213H	
12		Well	38/38
13	Exhibit A-7	Aerial View Map of	
14		Surrounding Development	38/38
15	Exhibit B	Self-Affirmed Statement of	
16		Stephen Burke, Geologist	38/38
17	Exhibit B-1	Structure Map	38/38
18	Exhibit B-2	Stratigraphic Cross-Section	38/38
19	Exhibit B-3	Gross Isopach	38/38
20	Exhibit B-4	Gun-Barrel View	38/38
21	Exhibit B-5	Structural Cross-Section	38/38
22	Exhibit C	Self-Affirmed Statement of	
23		Notice, Darin C. Savage	38/38
24	Exhibit C-1	Notice Letters	38/38
25	Exhibit C-2	Mailing List	38/38
			Page 12

1		EXHIBITS (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	<pre>Inc., Case 25117 (Cont'd):</pre>	
4	Exhibit C-3	Affidavits of Publication	38/38
5			
6	V-F Petroleum	Inc. Rebuttal Exhibits:	
7	Exhibit 1A	First Assignment of Operating	
8		Rights	42/42
9	Exhibit 1B	Second Assignment of Operatin	g
10		Rights	42/42
11	Exhibit 1C	Stratigraphic Cross-Section	
12		Showing Third Bone Spring	
13		Depth Severance	42/42
14	Exhibit 2	Permian Resources' Slim Jim	
15		Well Proposals and Location	
16		Plats	42/42
17	Exhibit 3	Affidavit of Fact and	
18		Comparison of Working	
19		Interests	42/42
20	Exhibit 4	Plains Marketing Oil	
21		Statement	42/42
22	Exhibit 5	Comparison of Permian	
23		Resources' Lajitas Well	
24		Proposals	42/42
25			
		E	Page 13

1		EXHIBITS (Cont'd)	
2	NO.	DESCRIPTION	ID/EVD
3	V-F Petroleum	Inc. Rebuttal Exhibits (Cont	'd):
4	Exhibit 6	43 CFR 3171.12 and Onshore	
5		Oil and Gas Order Number 1	42/42
6	Exhibit 7	Second Bone Spring Well	
7		Locator Map	42/42
8	Exhibit 8	Second Bone Spring	
9		Cross-Section	42/42
10	Exhibit 9	Second Bone Spring Gross	
11		Isopach	42/42
12	Exhibit 10	Second Bone Spring Net Pay	
13		Map	42/42
14	Exhibit 11	Third Bone Spring Well	
15		Locator Map	42/42
16	Exhibit 12	Third Bone Spring	
17		Cross-Section	42/42
18	Exhibit 13	Third Bone Spring Gross	
19		Isopach	42/42
20	Exhibit 14	Third Bone Spring Net Pay	
21		Map	42/42
22			
23	Permian Resou	rces Revised Exhibits:	
24	Exhibit A	Compulsory Pooling	
25		Application Checklists	42/42
			Page 14

1			EXHIBITS (Cont'd)	
2	NO.		DESCRIPTION	ID/EVD
3	Permian	Resour	ces Revised Exhibits (Cont'd)	:
4	Exhibit	В	Applications of Read &	
5			Stevens, Inc., for	
6			Compulsory Pooling	42/42
7	Exhibit	С	Self-Affirmed Statement of	
8			Travis Macha, Landman	42/42
9	Exhibit	D	Self-Affirmed Statement of	
10			Chris Cantin, Geologist	42/42
11	Exhibit	E	Self-Affirmed Statement of	
12			Sam Hamilton, Reservoir	
13			Engineer	42/42
14	Exhibit	F	Revised Self-Affirmed	
15			Notice Statement	42/42
16	Exhibit	G	Notice of Publication	42/42
17				
18	Permian	Resour	ces Rebuttal Exhibits:	
19	Exhibit	1	Outline of Interests	
20			Between Permian Resources	
21			and V-F Petroleum	44/44
22	Exhibit	2	Document	44/44
23				
24				
25				
				Page 15
				1490 13

1	PROCEEDINGS
2	THE HEARING EXAMINER: It is
3	approximately 9 a.m. on the 28th of January. We are
4	here for a contested hearing. This is a special
5	hearing of the Oil Conservation Division. My name is
6	Gregory Chakalian; I'm the hearing examiner.
7	With me as technical examiner today is
8	Mr. Dean McClure. Mr. James Cogswell is recording
9	this and will be the verbatim transcriber.
LO	I hear an echo. If you
L1	THE REPORTER: We're working on it.
L2	THE HEARING EXAMINER: Thank you very
L3	much, but I'm going to keep talking even though
L4	there's an echo.
L5	All right. So I'm going to call the
L6	cases now that are set for the contested hearing. Not
L7	in any particular order, these are case numbers.
L8	24941, 24942, 24994, 24995, 25115, 25116, 25117,
L9	25145, 46, 47, 48. We also have two no, we don't
20	have that one. Okay. Those are the cases.
21	I'd like to deal first with the motion
22	to dismiss case numbers 25145 through 25148. This
23	motion was filed on behalf of V-F Petroleum. It was
24	obviously opposed by Permian. I made a decision,
25	after reading the briefs and reviewing the cases, to

1	deny the motion based on a workaround that I have
2	developed with my technical examiner.
3	And what we're going to do is this.
4	The reason that the motion, just for the record, was
5	filed was that it was filed only two weeks ago, and
6	that does not give the proper notice to parties.
7	Under the rules it requires a 20-day notice period for
8	applications that are filed to be heard before the
9	OCD, both from the OCD's perspective of providing
LO	notice and of the company itself, this being Permian
L1	Resources Operating.
L2	What we're going to do here to
L3	basically cure this notice problem is, after the
L4	hearing is over either today or tomorrow, we are going
L5	to leave the record open. We are going to come back
L6	on the record on February 13, which is when these four
L7	cases are noticed. We will see what happens on
L8	February 13. If there are no objections or no
L9	requests for additional admission of evidence, then we
20	will close the record at that time having allowed a
21	sufficient notice period.
22	Mr. Savage, do you understand?
23	MR. SAVAGE: So if I understand this
24	right, so you're denying the motion because you have a
25	built-in workaround, which was expressed in the

1	amended prehearing orders, and that is to keep the
2	record open to allow folks who did not have the right
3	to be heard at the actual hearing and did not receive
4	notice prior to the hearing to able to enter an
5	appearance after the fact, after the hearing is over,
6	and express any objections they may have. If I may
7	clarify, if
8	THE HEARING EXAMINER: Before you
9	continue, Mr. Savage, you characterized it in a way
10	that I would push back on. I didn't say that the
11	record would be after the hearing. The hearing is
12	going to continue. The hearing is still open. So if
13	anyone objects, if anyone wants to submit new
14	evidence, the record is still open and they have a
15	possibility to do that either on February 13th or, if
16	they need more time, then they can argue for more time
17	and we'll see how that goes. So I wouldn't
18	characterize it the way you did.
19	MR. SAVAGE: Yes, sir.
20	THE HEARING EXAMINER: But go ahead.
21	MR. SAVAGE: So if I understand this,
22	so if somebody does have an objection after the event
23	of the initial hearing, then would you repeat the
24	hearing? Would the hearing have to be repeated?
25	THE HEARING EXAMINER: Would it be
	Page 18

1	repeated? No, but it would be continued.
2	MR. SAVAGE: Okay.
3	THE HEARING EXAMINER: There's a
4	difference between repeated and continued. I mean,
5	all the record is there for their review and they can
6	submit evidence to, you know, support their position
7	if it's different from one of the parties here, by all
8	means.
9	MR. SAVAGE: Yes, sir. If I may ask
10	for another clarification. So now under the rules,
11	based on this precedent, the definition of 20 days
12	prior to hearing, 10 days prior to hearing, is hearing
13	being defined now as not the actual initial event in
14	which the parties appear to be heard, but it will
15	include and be extended to include any time period in
16	which the record is left open?
17	THE HEARING EXAMINER: My decision is
18	based on the facts of this case, so I'm limiting this
19	decision and it's precedential weight to this case.
20	This case is a little different. It's been ongoing
21	now for months and months, and Permian filed some
22	competing applications, you know, so that the notice
23	would not be sufficient. So in this case, this is how
24	we're going to deal with it. I'll deal with other
25	cases as they come up. So I'm not saying that this is

1	how we're going to do it as a Division from here on
2	in.
3	MR. SAVAGE: Okay. Yes, sir. But any
4	time a party files a late application, this opens the
5	door for fast-tracking it by bypassing the specified
6	notice. Is that correct? Would that be
7	THE HEARING EXAMINER: I'm not going to
8	agree or disagree with your characterization. Like I
9	said, we'll deal with this as a case-by-case basis
10	from here on in.
11	MR. SAVAGE: Yes. Thank you. Thank
12	you, sir. I appreciate that clarification.
13	THE HEARING EXAMINER: So is there any
14	comment on the motion?
15	MS. VANCE: The only thing that I would
16	like to offer, and it may be helpful
17	THE HEARING EXAMINER: Maybe we should
18	have entries of appearance before we go any further.
19	MS. VANCE: Yeah.
20	THE HEARING EXAMINER: So let's do
21	entries of appearance. Let's start with V-F
22	Petroleum.
23	MR. SAVAGE: Yes, sir. Darin Savage
24	with Abadie & Schill appearing on behalf of V-F
25	Petroleum.

1	THE HEARING EXAMINER: And do you have
2	co-counsel?
3	MR. SAVAGE: Today I do not.
4	THE HEARING EXAMINER: Would you
5	indicate who's sitting with you at the table?
6	MR. SAVAGE: That is counsel for
7	another party who has entered independently.
8	THE HEARING EXAMINER: So let's hear
9	from that party.
10	MS. LUCK: Thank you, Mr. Hearing
11	Examiner. Kaitlyn Luck appearing for Carolyn Beall.
12	She is a party who received notice of one of these
13	late applications, and so I'm standing with V-F
14	Petroleum's motion to dismiss those applications, the
15	25145 through 25148, due to the fact that my client
16	didn't receive notice until two weeks ago, and she
17	does own an interest in the Bone Spring formation
18	that's being affected here.
19	THE HEARING EXAMINER: What is her
20	interest? What is the amount? What is the percentage
21	of her interest?
22	MS. LUCK: I have the assignments here.
23	I can refer to them. But the issue here is that the
24	well is being drilled in the lower portion of the Bone
25	Spring and her interest is just above that, and
	Page 21

1	there's a depth severance in the Bone Spring, and so
2	we have concerns regarding allocation of production to
3	her interest. And so there is a real and substantial
4	issue here with the development of the Bone Spring
5	with my client's interest being located slightly above
6	where the drilling is taking place in the Bone Spring
7	formation.
8	THE HEARING EXAMINER: So in what way
9	are you aligned with V-F Petroleum?
L O	MS. LUCK: Ms. Beall is aligned with
L1	V-F Petroleum in opposition to Read & Stevens'
L2	applications. She does not support this drilling in
L3	the Bone Spring that's proposed by Read & Stevens
L4	because she hasn't had an adequate time to determine
L5	whether or not that's appropriate drilling for the
L6	Bone Spring in this area due to the location of where
L7	her interest is. She's not clear on how that
L8	production's going to be allocated to her interest at
L9	this point.
20	THE HEARING EXAMINER: Ms. Luck, you,
21	you're confusing me in the following. I've asked what
22	is her percentage interest?
23	MS. LUCK: And sorry, I'll have to find
24	that. If you don't mind, if I could have a moment.
25	THE HEARING EXAMINER: Okay. Well,

1	while you're looking for that, I have another question
2	for you. So in the other cases that have been filed,
3	have you reviewed those cases?
4	MS. LUCK: I've only reviewed the V-F
5	Petroleum cases that have been filed.
6	THE HEARING EXAMINER: Again, I'm
7	confused. We have here Permian Resources filed their
8	case 24941 and 42. Let's see let's get entries of
9	appearance for Permian first or Read Stevens, however
10	you characterize it.
11	MS. VANCE: Good morning, Mr. Hearing
12	Examiner. Paula Vance and Adam Rankin on behalf of
13	Permian.
14	THE HEARING EXAMINER: Okay.
15	MS. VANCE: Another echo.
16	THE HEARING EXAMINER: Yes.
17	MS. VANCE: And also XTO, and I'm going
18	to let Mr. Rankin speak to XTO's position in these
19	cases.
20	I would like to say, if you want to
21	come back to me, but I would like to provide some
22	further information regarding the notice which I think
23	would be helpful to further support why we can move
24	forward today.
25	And also I did want to address

1	Ms. Beall, Carolyn Beall, her interest. I do have
2	that information regarding her interest and would like
3	to point out that she's receiving notice in the cases
4	that they entered an appearance and objection in,
5	Permian's cases 25145 through 25148. Those are Third
6	Bone Spring cases.
7	THE HEARING EXAMINER: Are those the
8	only cases that Ms. Beall has objected to?
9	MS. VANCE: Yes. And so she received
10	notice because she has a vertical offset, which
11	Ms. Luck has just alluded to. And I would like to
12	point out that we previously filed an application for
13	the north half/north half, Permian did north
14	half/north half of section 14. The Division heard
15	that case. Ms. Beall received notice and her interest
16	was pooled, and that order was entered on December 12,
17	2024, more than 30 days ago.
18	THE HEARING EXAMINER: Thank you.
19	Ms. Luck?
20	MS. LUCK: Yes. It's my understanding
21	that those are separate cases, but Ms. Beall has about
22	a 1 percent interest in the spacing unit.
23	THE HEARING EXAMINER: Okay. Thank you
24	for that information. Now, Permian filed its original
25	cases back on October the 8th. I'm looking at it

1	here. Now, your client entered an objection not on
2	the original cases, but on following cases?
3	MS. LUCK: Yes. It's my understanding.
4	THE HEARING EXAMINER: Okay. Is what
5	Ms. Vance said correct in the case numbers that your
6	client objected to?
7	MS. LUCK: I think that's correct.
8	Yes, sir.
9	THE HEARING EXAMINER: Okay. Why don't
10	you tell me. What cases did you enter an appearance
11	on and object to?
12	MS. LUCK: In cases 25145 through
13	25148.
14	THE HEARING EXAMINER: And these are
15	the newer cases. Right, Ms. Vance?
16	MS. VANCE: Correct. They were filed
17	in January.
18	THE HEARING EXAMINER: Very good. So
19	these are the Third Bone Spring cases, as you stated,
20	and Ms. Beall entered an objection on them. And why
21	does the December order show that they have notice in
22	these cases?
23	MS. VANCE: If you go to the hearing
24	packet, which I would be glad to pull up, or you can
25	go to the case file. It's case number 24939.

1	THE HEARING EXAMINER: Okay.
2	MS. VANCE: You can look at our hearing
3	packet. You can see that her name is there on our
4	mailing report and that it was timely delivered. Her
5	name is also included on our notice of affidavit.
6	THE HEARING EXAMINER: I guess what I'm
7	asking is and thank you for the information. What
8	I'm asking you is what is the crossover between these
9	cases and the 24939 in the subject lands?
LO	MS. VANCE: So there is a depth
L1	severance here.
L2	THE HEARING EXAMINER: Okay.
L3	MS. VANCE: And so, as a part of our
L4	case, for our cases, the 25145 through 25148, we
L5	provide a notice to the vertical offset to let them
L6	know that we are conducting this pooling. And so what
L7	I suspect happened is yesterday I filed a revised
L8	hearing packet to address objection one from V-F,
L9	which was they did not get a chance to look at the
20	notice. And we included in that the folks who were
21	going to get notice, and Ms. Carolyn Beall's name is
22	on there. And so I'm assuming that they saw that
23	name, and, to go along with our theme that we'll talk
24	about when we get to the contested hearing, is that
25	this is grasping at straws. They're

1	THE HEARING EXAMINER: But this isn't
2	answering my question. So thank you for that, but
3	let's go back to my question, which is, you were
4	saying before that in case 24939 you provided
5	Ms. Beall notice.
6	MS. VANCE: Correct.
7	THE HEARING EXAMINER: How does that
8	notice cure her objection to the short notice in the
9	new cases, 145 through 148?
10	MS. VANCE: It doesn't, but what I
11	would say for these, it's not required to provide
12	notice to the offset, but we do it. And also what I
13	would say is that in her objection she's provided
14	nothing to say why she's being impaired.
15	THE HEARING EXAMINER: Okay. I
16	understand that. I just thought that you were saying
17	something different. When you brought up case 24939
18	and the order in December from that case, I thought
19	you were saying that put Ms. Beall on notice of these
20	new cases in some way.
21	MS. VANCE: No, no.
22	THE HEARING EXAMINER: That's not what
23	you were saying. But it sounded like you were, so
24	that's why I wanted to clarify.
25	MS. VANCE: Can I add just one other

1	thing?
2	THE HEARING EXAMINER: Sure.
3	MS. VANCE: Just to respond to the
4	Ms. Beall owns 1 percent working interest.
5	THE HEARING EXAMINER: Yes.
6	MS. VANCE: She is the wife of the
7	owner of V-F Petroleum, and that interest is to Tom
8	Beall and V-F Petroleum, not Carolyn Beall.
9	THE HEARING EXAMINER: Okay. Thank
10	you.
11	So, Ms. Luck, is there anything else
12	you want me to know about the objection?
13	MS. LUCK: Well, there's just one point
14	of clarification that I'd like to point out. It looks
15	like the 24939 case was just a 160-acre spacing unit
16	and the 25145, these are 320s, so it does look like
17	it's slightly different acreage. And the important
18	thing here with the Bone Spring development is there's
19	no geologic barrier, and so there could be dilution or
20	drainage between this different development, and so
21	that's part of the reason that I'm here. And we
22	haven't had a chance to develop a full case on this
23	issue yet just due to the late notice.
24	THE HEARING EXAMINER: Okay. Well
25	we're going to start the hearing today, so I'm

1	
1	overruling the objection. We're going to start the
2	hearing today. If your client wants to bring
3	additional information on February 13, we'll hear it
4	on February 13, and then we'll deal with the record
5	closing at that time.
6	Is there anything else?
7	MS. LUCK: Nothing further. Thank you.
8	THE HEARING EXAMINER: All right. Very
9	good.
L O	Ms. Vance?
L1	MS. VANCE: There was one other item
L2	that I wanted to address. You know, we had a
L3	conversation about the preliminary hearing, I wanted
L <b>4</b>	to bring it up, but we'd like to go ahead and put it
L 5	on the record, if that's okay with the Examiner. But
L6	I wanted to point out that the same noticed parties
L 7	for our two cases, 24941 and 24942, which are timely,
L8	the same parties are being noticed for 25145 through
L9	25148. Again, there's a depth severance, and they
20	just have different percentages of interest.
21	So to connect the dots, those parties
22	have already received notice of our two cases in which
23	a prehearing order was issued, and they have
24	notification that they can go and follow the case for
25	those two hearings, and they can see that all of these

1	cases have now been consolidated.
2	THE HEARING EXAMINER: And I understand
3	that. And just for my clarification, I understand the
4	parties are the same but the interests are different
5	in the case numbers, but aren't the lands also
6	expanded in the new cases to include new lands just
7	north of that north half of the north half as opposed
8	to just the south half of the north half?
9	MS. VANCE: That's correct.
10	THE HEARING EXAMINER: Okay. I thought
11	so. All right. That's fine. I think we've dealt
12	with this issue.
13	Mr. Savage, are there any other
14	preliminary issues before we get to exhibits? Your
15	microphone's off, sir.
16	MR. SAVAGE: I would just like to add
17	some clarification to this. As I understand, 24939
18	purported to pool the entire Third Bone Spring?
19	THE HEARING EXAMINER: I don't know why
20	we're even talking about 24939. It's not relevant
21	here.
22	MR. SAVAGE: Well, Ms. Vance was able
23	to
24	THE HEARING EXAMINER: I know, but when
25	I drilled down further on it, it didn't really help
	Page 30

1	the notice issue, and that's the only reason that I
2	think the case was brought up. Is there something
3	else you wanted to tell me?
4	MR. SAVAGE: Well, I think that the
5	severance is part of the overall addressing
6	production from the Third Bone Spring with respect to
7	the severance is critical to the overall development
8	plan of these.
9	THE HEARING EXAMINER: Okay.
10	MR. SAVAGE: This is a taking.
11	Ms. Beall's interest is in the upper part of the Third
12	Bone Spring. They are landing in the lower part,
13	below the severance. They are producing the entire
14	Third Bone Spring. This is a taking of her interest
15	and excluding her interest. I think this is a very
16	serious issue, and I think the notice is a very
17	serious matter, just for the record.
18	THE HEARING EXAMINER: Well, I think
19	we've dealt with the notice issue. I mean, I can't
20	say it any other way than I've already said it, so I'm
21	not going to keep going into the notice issue. We'll
22	come back on the record on February 13 to hear
23	whatever other evidence that there is. But I think
24	you're going to address that severance in today's with
25	your witnesses. Are you not?

1	MR. SAVAGE: We didn't have ample time
2	to address this because it was an issue that they had
3	brought up
4	THE HEARING EXAMINER: Yes.
5	MR. SAVAGE: in the exhibits when
6	they we weren't aware of this necessarily in
7	relation to how they were pooling because they were
8	claiming to pool, in their application, the entire
9	Third Bone Spring. Then we realized, based on their
10	testimony that they filed a week ago, that we have a
11	severance. Now, the legal issues surrounding the
12	severance are pretty significant and should be
13	thoroughly developed, and we're not going to have time
14	to thoroughly develop those in the hearing today.
15	THE HEARING EXAMINER: Okay.
16	Mr. Savage, this issue that you're talking about, does
17	it exist only in 25145 through 48?
18	MR. SAVAGE: Within the Third Bone
19	Spring applications.
20	THE HEARING EXAMINER: I asked you does
21	it only exist in application case numbers 25145
22	through 48?
23	MR. SAVAGE: Those are the cases that
24	cover the Third Bone Spring.
25	THE HEARING EXAMINER: Perfect. So you
	Da ~ 2.2
	Page 32

1	
1	will have additional opportunity on February 13. If
2	you want to enter more evidence about this issue, you
3	have plenty of time to do that.
4	MR. SAVAGE: Sir, we will not have
5	ample opportunity to cross-examine the witnesses.
6	THE HEARING EXAMINER: Why not?
7	They'll be here.
8	MR. SAVAGE: Mr. Macha will be here?
9	THE HEARING EXAMINER: Everyone will be
10	here. The hearing continues on February 13. I don't
11	know how to make that more clear.
12	MR. SAVAGE: Yes, sir. I understand.
13	Thank you.
14	THE HEARING EXAMINER: So your
15	witnesses will be here, their witnesses will be there,
16	and if Ms. Beall is it Ms. Beall?
17	MS. LUCK: Yes. Ms. Beall.
18	THE HEARING EXAMINER: Beall. I
19	thought so, but he said Beall so I got confused.
20	So if Ms. Beall wants to present
21	witnesses on her behalf, she's more than welcome to.
22	MS. LUCK: And thank you for that
23	clarification. We'll be prepared for February 13th.
24	THE HEARING EXAMINER: Perfect. And by
25	the way, we will hear this at the end of the

1	February 13 docket, which is a little large right now,
2	and we're going to be cutting it down.
3	And, Freya, we're going to cut it down
4	substantially so we have plenty of time to hear any
5	additional evidence in these cases. So I think maybe
6	the max on that day should be somewhere between 30 and
7	40 that we actually hear before we come back on the
8	record on these cases.
9	Okay. Mr. Savage, do you have any
10	other preliminary issues before we get to exhibits?
11	MR. SAVAGE: I believe that covers
12	everything. Thank you.
13	THE HEARING EXAMINER: Let's deal with
14	the exhibits. What exhibits do you have? Let's see
15	whether we can get them admitted through stipulation.
16	MR. SAVAGE: So we have let's see
17	here.
18	THE HEARING EXAMINER: Do you have a
19	packet I can look at?
20	MR. SAVAGE: We do. I'm trying to pull
21	it up here. So we have individual hearing packets for
22	each case.
23	THE HEARING EXAMINER: Okay.
24	MR. SAVAGE: So we have filed a hearing
25	packet for 24994, 24995, 25115, 25116, and 25117.

1	THE HEARING EXAMINER: Okay.
2	MR. SAVAGE: And those will contain all
3	the landman exhibits and all the geology exhibits.
4	And we did not have time to prepare the reservoir
5	engineer. So we have geology and the landman
6	exhibits.
7	THE HEARING EXAMINER: In which cases
8	do you need your reservoir engineer?
9	MR. SAVAGE: Well, I think we would
LO	need a reservoir engineer in every case.
L1	THE HEARING EXAMINER: Oh. Then what
L2	do you mean you didn't have time to prepare for a
L3	reservoir engineer
L4	MR. SAVAGE: So V-F Petroleum does not
L5	have an in-house reservoir engineer the same way that
L6	Permian Resource does, so we have to seek outside
L7	expertise. And V-F Petroleum inquired with the
L8	reservoir engineers it has worked with, and, within
L9	the timeline given, they said it was not possible for
20	them to do it. The initial applications were filed
21	and that was, you know, during a lot of the holidays,
22	and the logistics during that time were very
23	difficult, and then with the additional applications
24	that was fast-tracked, and so that was not possible.
25	THE HEARING EXAMINER: So your case was

1	filed on December 2nd, and two weeks later was the
2	prehearing order setting today as the actually
3	setting let's see. Oh, wait, this was a motion.
4	Excuse me. Let me go back. Let me see the prehearing
5	order here.
6	This is the case in which originally we
7	were thinking about March the 4.
8	MR. SAVAGE: Yes, sir.
9	THE HEARING EXAMINER: Then, as I
10	remember, the parties came to me and asked for
11	January 14. Then you filed a motion saying you
12	wouldn't be ready because of witness availability, so
13	we moved it to today.
14	MR. SAVAGE: Yes, sir.
15	THE HEARING EXAMINER: So during all
16	that time I never heard that you had a problem with
17	the reservoir engineer. So you'll proceed today as
18	best you can.
19	MR. SAVAGE: Yes, sir.
20	THE HEARING EXAMINER: And if you're a
21	reservoir engineer is able to appear on February 13,
22	then it sounds like that would be of great benefit to
23	you, and we'll see how that works.
24	Okay. So anyway, back to what I asked
25	about. So you're saying each case has an individual

1	hearing packet.
2	MR. SAVAGE: Correct.
3	THE HEARING EXAMINER: Okay.
4	So, Ms. Vance and Mr. Rankin, excuse
5	me, did you have an opportunity to review the exhibit
6	packets filed by V-F?
7	MS. VANCE: Yes.
8	THE HEARING EXAMINER: Okay. Very
9	good. Are there any objections to the hearing packets
10	filed by V-F?
11	MS. VANCE: No.
12	THE HEARING EXAMINER: No objections.
13	So, Mr. Savage, all of your exhibits
14	filed in all of your cases as of today are admitted
15	into evidence.
16	(V-F Petroleum Case 24994 Exhibits A,
17	A-1 through A-9, B, B-1 through B-5, C,
18	and C-1 through C-3 were marked for
19	identification and received into
20	evidence.)
21	(V-F Petroleum Case 24995 Exhibits A,
22	A-1 through A-9, B, B-1 through B-5, C,
23	and C-1 through C-3 were marked for
24	identification and received into
25	evidence.)
	Page 37

1	(V-F Petroleum Case 25115 Exhibits A,
2	A-1 through A-7, B, B-1 through B-5, C,
3	and C-1 through C-3 were marked for
4	identification and received into
5	evidence.)
6	(V-F Petroleum Case 25116 Exhibits A,
7	A-1 through A-9, B, B-1 through B-5, C,
8	and C-1 through C-3 were marked for
9	identification and received into
10	evidence.)
11	(V-F Petroleum Case 25117 Exhibits A,
12	A-1 through A-7, B, B-1 through B-5, C,
13	and C-1 through C-3 were marked for
14	identification and received into
15	evidence.)
16	MR. SAVAGE: Thank you, sir. And I
17	have, during the initial examinations, such as cross,
18	I have a couple of Code of Federal Regulations and
19	some BLM regulations I would like to possibly pull up
20	on the screen during that time. Can I do that during
21	the examination, or do you want me to admit these
22	regulations prior?
23	THE HEARING EXAMINER: If you show me
24	how they're relevant and if there's no objection, then
25	yes. But we'll deal with that as we go because I
	D= 20
	Page 38

г	
1	don't know what they are and how they apply to today's
2	cases.
3	Let me go to do you want me to call
4	it Read & Stevens or Permian?
5	MS. VANCE: Permian is just fine.
6	THE HEARING EXAMINER: Permian. Let's
7	go to Permian's counsel. Do you have exhibits that
8	you'd like to admit through stipulation?
9	MS. VANCE: Yes, we do.
10	THE HEARING EXAMINER: And what are
11	they?
12	MS. VANCE: I am pulling up my exhibits
13	so I can just quickly walk through them. So we have
14	provided the self-affirmed statement of Travis Macha,
15	who
16	THE HEARING EXAMINER: Is there a case
17	number you want me to look at for this or are they all
18	the same?
19	MS. VANCE: They're all the same.
20	THE HEARING EXAMINER: They're all the
21	same.
22	MS. VANCE: We did a compiled hearing
23	packet.
24	THE HEARING EXAMINER: Perfect.
25	MS. VANCE: So that the hearing
	Page 39

1	examiner and technical examiner can view all of the
2	cases succinctly.
3	THE HEARING EXAMINER: I have something
4	filed on the 22nd. Would that be the hearing packet?
5	MS. VANCE: That's correct.
6	THE HEARING EXAMINER: All right.
7	MS. VANCE: Well, I did file a revised
8	hearing packet yesterday.
9	THE HEARING EXAMINER: Yesterday.
10	MS. VANCE: Yes. And there's a cover
11	page describing the updates that I provided.
12	THE HEARING EXAMINER: Freya, do we
13	have that? Maybe I'm not seeing it.
14	MS. VANCE: I am happy to email it to
15	the Examiner.
16	THE HEARING EXAMINER: I have hold
17	on a second.
18	MS. TSCHANTZ: We do have it. It's
19	received on January 27th.
20	THE HEARING EXAMINER: Okay. I'll look
21	now. Thank you.
22	MS. TSCHANTZ: I'm looking in case
23	THE HEARING EXAMINER: Notice of
24	revised exhibits. I have it. And this looks like a
25	192-page document. Is that complete?

1	MS. VANCE: That's correct. With Bates
2	numbering.
3	THE HEARING EXAMINER: Okay. And just
4	to go back one second, Ms. Vance.
5	I also see a notice of rebuttal
6	exhibits from V-F.
7	MR. SAVAGE: Yes, sir. And rebuttal
8	exhibits from PR as well.
9	MS. VANCE: Yes, we did
10	THE HEARING EXAMINER: I haven't seen
11	that yet.
12	MS. VANCE: I am happy to send those.
13	We circulated those to opposing counsel yesterday
14	afternoon.
15	THE HEARING EXAMINER: So I just want
16	to be clear about something. At first I was asking
17	you if you'd stipulate to the exhibit packets that
18	were filed. Does that include the rebuttal exhibits?
19	MS. VANCE: Yes.
20	THE HEARING EXAMINER: Okay. Very
21	good. Then your rebuttal exhibits are admitted into
22	evidence.
23	
24	
25	//
	Page 41

1	(V-F Petroleum Rebuttal Exhibits 1A
2	through 1C and 2 through 14 were marked
3	for identification and received into
4	evidence.)
5	MR. SAVAGE: Thank you, sir.
6	THE HEARING EXAMINER: Now let's go to
7	Ms. Vance. I do have your 192-page document here.
8	You don't need to walk me through it yet.
9	MS. VANCE: Okay.
10	THE HEARING EXAMINER: Mr. Savage, are
11	there any objections to this document?
12	MR. SAVAGE: No objection to
13	admitting for review.
14	THE HEARING EXAMINER: No objections.
15	Okay.
16	MR. SAVAGE: Ms. Vance, your revised
17	exhibit packet is admitted into evidence.
18	(Permian Resources Revised Exhibits A
19	through G were marked for
20	identification and received into
21	evidence.)
22	THE HEARING EXAMINER: And, Freya,
23	would you please remove any conflicting exhibit
24	packets?
25	MS. TSCHANTZ: Yes, I will.
	Page 42
	5 <del>-</del>

1	THE HEARING EXAMINER: I know it's
2	going to be a lot of work because there's a lot of
3	case numbers and there's probably a lot of revisions,
4	but if you would do that over time, I appreciate it.
5	Okay. So, Ms. Vance, I don't have
6	rebuttal exhibits. Where would they be?
7	MS. VANCE: I circulated those to
8	opposing counsel last night, and I'm happy to submit
9	those email those to you, Mr. Hearing Examiner.
10	THE HEARING EXAMINER: That would be
11	helpful, yes.
12	MS. VANCE: Yes, sir.
13	THE HEARING EXAMINER: Would you submit
14	them also to Freya?
15	MS. VANCE: Yes.
16	THE HEARING EXAMINER: All right. So
17	let's just deal with the rebuttal exhibits now.
18	MS. VANCE: Mr. Savage, have you seen
19	these rebuttal exhibits?
20	MR. SAVAGE: We have reviewed
21	THE HEARING EXAMINER: You have?
22	MR. SAVAGE: Yes.
23	THE HEARING EXAMINER: Okay. Are there
24	any objections to the rebuttal exhibits from Permian?
25	MR. SAVAGE: Not initially. Nothing
	Page 43

1	that could be addressed when we address them.
2	THE HEARING EXAMINER: I understand.
3	So Ms. Vance, all of your exhibits, including your
4	revised exhibits and your rebuttal exhibits are
5	admitted into evidence.
6	(Permian Resources Rebuttal Exhibit 1
7	and Exhibit 2 were marked for
8	identification and received into
9	evidence.)
10	MS. VANCE: Thank you. And just to be
11	clear then, because I do believe opposing counsel had
12	some objections to our testimony
13	THE HEARING EXAMINER: But your
14	exhibits are admitted.
15	MS. VANCE: Okay.
16	THE HEARING EXAMINER: So let's just
17	leave it there for now.
18	MS. VANCE: Fair enough.
19	THE HEARING EXAMINER: We'll deal with
20	the objections as we go along.
21	Okay. Now, have the parties decided
22	who wants to put on their case in chief first?
23	MS. VANCE: No.
24	MR. SAVAGE: So
25	THE HEARING EXAMINER: Any suggestions?
	Page 44

1	MR. SAVAGE: Well
2	THE HEARING EXAMINER: Maybe by witness
3	availability or something of that nature?
4	MR. SAVAGE: We would be fine with
5	Permian Resources going first.
6	THE HEARING EXAMINER: Okay. And how
7	do you feel about that, Ms. Vance?
8	MS. VANCE: That's perfectly fine with
9	us. Obviously, I think you already know that we have
10	an unavailability issue.
11	THE HEARING EXAMINER: A landman issue?
12	MS. VANCE: Yes, we do. But it seems
13	like that works out perfectly fine since the cases are
14	going to be continued and he can be available, I'm
15	assuming, on February 13th.
16	THE HEARING EXAMINER: Or tomorrow.
17	MS. VANCE: Or tomorrow.
18	THE HEARING EXAMINER: Depending on how
19	this goes.
20	MS. VANCE: Yes. Yeah.
21	THE HEARING EXAMINER: So it's just
22	today he's not available.
23	MS. VANCE: Well, his wife
24	THE HEARING EXAMINER: Yes.
25	MS. VANCE: is in labor, and so I
	Page 45

1	don't want to promise tomorrow in case there's any
2	kind of medical complications. I just
3	THE HEARING EXAMINER: Or
4	February 13th.
5	MS. VANCE: Yeah.
6	THE HEARING EXAMINER: Okay. Good.
7	I'm glad we have February 13th to fall back on. Okay.
8	How many witnesses do you have, Ms. Vance?
9	MS. VANCE: I have two other witnesses
10	available. We have our geologist Chris Cantin, and we
11	have our reservoir engineer Sam Hamilton. He has not
12	appeared before the Division.
13	THE HEARING EXAMINER: Right. We'll
14	deal with that in just a minute. So you have two
15	witnesses available today for cross-examination.
16	MS. VANCE: Right.
17	THE HEARING EXAMINER: And, Mr. Savage,
18	did you have any cross-examination questions for the
19	landman?
20	MR. SAVAGE: Yes, sir.
21	THE HEARING EXAMINER: Okay.
22	MR. SAVAGE: May I just add one
23	comment? So this seems like a very stressful
24	situation for Mr. Macha and his
25	THE HEARING EXAMINER: Who's Mr. Macha?
	D= 46
	Page 46

1	MR. SAVAGE: That's he landman for PR.
2	THE HEARING EXAMINER: Okay.
3	MR. SAVAGE: His wife is being induced
4	in labor.
5	THE HEARING EXAMINER: Yes. I
6	understand.
7	MR. SAVAGE: It would seem like a
8	minimum to move everything to February 13th so
9	THE HEARING EXAMINER: We're not doing
10	that. So let's not comment on that anymore.
11	MR. SAVAGE: Yes, sir.
12	THE HEARING EXAMINER: Thank you,
13	Mr. Savage.
14	Okay. So let's get your two witnesses
15	on screen, Ms. Vance.
16	MS. VANCE: Yes. Let's see.
17	THE HEARING EXAMINER: And I know
18	Mr. Cantin.
19	MS. VANCE: They're right there.
20	THE HEARING EXAMINER: I see
21	Mr. Hamilton, and I see Mr. Cantin. Okay. Would you
22	turn off your microphones? Thank you. Appreciate it.
23	Okay. So Mr. Cantin, Mr. Hamilton,
24	will you please raise your right hands?
25	I saw both of them thank you.
	Page 47

1	Okay. Mr. Cantin, I've already
2	qualified you or you've been qualified as an expert in
3	your field before this Division. Would you remind me
4	what field? Are you the geologist or are you the
5	reservoir engineer?
6	MR. CANTIN: I'm the geologist.
7	THE HEARING EXAMINER: Okay. Thank
8	you.
9	Okay. Mr. Hamilton, I'm not looking at
10	your CV, although I'm sure Ms. Vance has provided it
11	for me. What field of expertise are you seeking to be
12	an expert in?
13	MR. HAMILTON: Yes, sir. Reservoir
14	engineering.
15	THE HEARING EXAMINER: Okay. Perfect.
16	Can you outline your education toward that degree?
17	MR. HAMILTON: Yes, sir. I have a
18	bachelor's of petroleum engineering that I attained
19	from the University of Texas and have been working in
20	the field for approximately ten years now.
21	THE HEARING EXAMINER: Okay. So back
22	to your education part, let's just break it down a
23	little bit. So you got your bachelor's in reservoir
24	engineering from University of Texas. Is there any
25	other education that goes toward this field?

1	MR. HAMILTON: Yes, sir. I do have an
2	MBA that I also attained the University of Texas.
3	THE HEARING EXAMINER: How does that go
4	to qualifying you as a reservoir engineer?
5	MR. HAMILTON: I would say that it aids
6	me in financial analysis and economic evaluation of
7	oil and gas production.
8	THE HEARING EXAMINER: Okay. And then
9	what work have you done in the field of reservoir
10	engineering?
11	MR. HAMILTON: I worked as a consulting
12	petroleum engineer for ten years for Masters
13	Consulting where we did litigation support as well as
14	appraisals and valuations. And more recently I have
15	been with Permian Resources for approximately six
16	months now working as an asset development reservoir
17	engineer.
18	THE HEARING EXAMINER: Okay.
19	Mr. Savage, any objections? You're
20	turning off your microphone.
21	MR. SAVAGE: Did I not see the resume
22	in here?
23	THE HEARING EXAMINER: What page number
24	is it, Ms. Vance?
25	MS. VANCE: So it's page 156 of 192.
	Page 49

1	THE HEARING EXAMINER: Thank you.
2	MS. VANCE: And I'm happy to share it
3	on screen if necessary.
4	THE HEARING EXAMINER: No, it's not
5	necessary. Thank you.
6	Mr. Savage, any objections?
7	MR. SAVAGE: So his background is
8	engineering and business, that's his credentials. And
9	then he has experience in he's being qualified as a
10	geologist?
11	THE HEARING EXAMINER: No, a reservoir
12	engineer.
13	MR. SAVAGE: He is the reservoir
14	engineer. Okay. Yeah. No. No objection to that.
15	THE HEARING EXAMINER: Very good.
16	Mr. Hamilton, you're qualified before
17	this Division from here on in as an expert in
18	reservoir engineering.
19	Okay. Ms. Vance, both of your
20	witnesses are sworn in. Who do you want to call
21	first?
22	MS. VANCE: I'm fine calling either/or.
23	So we can call Mr. Cantin first.
24	THE HEARING EXAMINER: Okay.
25	MS. VANCE: Mr. Examiner, are we going
	Page 50
	1436 30

1	to do any opening statements or
2	THE HEARING EXAMINER: I leave that to
3	your discretion. Do you want to do a brief opening
4	statement?
5	MS. VANCE: Just a brief opening
6	statement.
7	THE HEARING EXAMINER: And then
8	Mr. Savage, I'll give you an opportunity to do an
9	opening statement when you present your case in chief.
10	MR. SAVAGE: Yes, sir.
11	OPENING STATEMENT
12	MS. VANCE: So just very briefly, just
13	to lay the groundwork of where we are today. So I
14	sort of mentioned this when we were talking during the
15	preliminary hearing, but the theme here is grasping at
16	straws. That is what V-F is doing. They are grasping
17	at straws. They are acting like somebody is doing
18	something to them, PR is doing something to them, when
19	in fact they have just painted themselves into a
20	corner, trying to use the contested hearing process to
21	gain leverage in negotiations. And the problem is it
22	has backfired, it's not worked, and basically they
23	have not done their job because they have the burden
24	of proof in this case.
25	So these are overlapping development

1	plans. The overlap is in section 15. And as the
2	minority interest owner, they have the burden of
3	showing that Permian's plan is causing waste,
4	substantial waste, and impairing correlative rights.
5	And nothing they have filed has done any of that.
6	It's not done any of that. Nothing that they have
7	filed in their hearing packet, none of their rebuttal
8	exhibits, it has not supported anything to get them
9	over that hurdle.
10	But what it has done has helped our
11	case because it has shown what we are arguing is that
12	they are a business that has little experience in
13	drilling and operating wells in Eddy, New Mexico, and
14	they are carrying out their business in a knee-jerk
15	reaction manner, and, you know, that's where we are
16	and that's how we got to these contested cases today.
17	So with that, that's our theme:
18	Grasping at straws. So
19	THE HEARING EXAMINER: Thank you,
20	Ms. Vance.
21	MS. VANCE: Okay. I'm just going to
22	pull up so let me just see. Give me one second
23	here.
24	//
25	//
	Daga E2

1	WHEREUPON,
2	CHRISTOPHER CANTIN,
3	called as a witness and having been first duly sworn
4	to tell the truth, the whole truth, and nothing but
5	the truth, was examined and testified as follows:
6	DIRECT EXAMINATION
7	BY MS. VANCE:
8	Q Mr. Cantin, can you please state your full
9	name for the record?
10	MS. VANCE: I think they're still
11	having a moment with the
12	THE HEARING EXAMINER: Mr. Cantin, how
13	many microphones do you have going?
14	MS. VANCE: Give us just a second to
15	work out technical issues.
16	MR. HAMILTON: We're going to swap
17	places real quick so Chris can work on this computer.
18	THE WITNESS: Can you hear me?
19	THE HEARING EXAMINER: Yes.
20	THE WITNESS: That's better. Awesome.
21	I apologize. We have a TV on to the right showing the
22	exhibits, so I'll be looking to the left, so I'll
23	be looking this way periodically. So
24	THE HEARING EXAMINER: Ms. Vance?
25	MS. VANCE: Yes.

1	BY MS. VANCE:
2	Q So, Mr. Cantin, can you please state your
3	full name for the record?
4	A Yes. My name is Christopher Cantin.
5	Q Okay. And can you spell that for the court
6	reporter?
7	A Yes. C-H-R-I-S-T-O-P-H-E-R. Last name is
8	Cantin, C-A-N-T-I-N.
9	Q And by whom are you employed?
10	A Permian Resources.
11	Q And in what capacity?
12	A I am a geologist.
13	Q And you have previously testified before the
14	Division. Correct?
15	A I have.
16	Q And your credentials have been accepted as a
17	matter of record?
18	A Yes, ma'am.
19	Q And you are familiar with the applications
20	filed in these competing cases?
21	A I am.
22	Q Okay. And you're familiar with the lands
23	within the proposed spacing units?
24	A Yes.
25	Q Okay. And you prepared the written
	Page 54

1	testimony attached as Exhibit D that's a part of the
2	hearing packet?
3	A Yes.
4	Q Okay. And then you also prepared the
5	exhibits in connection with that testimony?
6	A I did.
7	Q And they are marked as Exhibits D-1 through
8	D-6?
9	A That is correct.
10	Q Now, do you have any corrections or
11	modifications or changes to that testimony?
12	A I do not.
13	Q Okay. And so do you adopt your written
14	testimony in exhibits under oath?
15	A Yes, ma'am.
16	Q And you affirm the veracity of the exhibits
17	that you prepared?
18	A Yes.
19	MS. VANCE: Okay. Mr. Hearing
20	Examiner, I would tender Mr. Cantin as a witness and
21	make him available for cross-examination.
22	THE HEARING EXAMINER: Mr. Savage?
23	MR. SAVAGE: Yes, sir.
24	//
25	//
	Daga 55
	Page 55

1	CROSS-EXAMINATION
2	BY MR. SAVAGE:
3	Q Mr. Cantin, thank you for your time
4	answering our questions. If you happen not to hear a
5	question or a question isn't clear to you, please do
6	not hesitate to ask me to repeat the question or
7	rephrase the question.
8	Now, Mr. Cantin, in the course of your work
9	as a geologist with Permian Resources, I assume you
10	draft isopach maps periodically or on a regular basis.
11	Is that correct?
12	A Yes, sir.
13	Q And do you agree that the isopach maps
14	provide information on the veracity and net pay of a
15	formation?
16	A They can. It just depends on what the
17	the thickness of the what the rock contains within
18	that that the isopach, but yes.
19	Q Okay. So yes. Thank you. Would it be
20	accurate to say that the greater the porosity of a
21	formation, the greater the net pay?
22	A Yes.
23	Q Okay. Did you provide isopach maps for
24	sections 14 and 15 in your exhibits?
25	A I did not.

1	Q Have you drafted isopach maps for the
2	sections?
3	A I I did not for this for this hearing,
4	no.
5	Q You did not for the exhibits, I understand
6	that, but did you draft them in-house and have them
7	but not submit them to the exhibits?
8	A I I have them I have in the past in
9	this in this area. Correct.
10	Q Okay. So just to clarify, if I understand,
11	you have not drafted isopach maps for this area and
12	you do not have them, even though they're not part of
13	the exhibit.
14	A I have I have worked this whole area and
15	I have I have isopachs, but I did not put them in
16	the exhibit. Correct.
17	Q Okay. So you have isopachs and you have the
18	isopach data, but you did not include them in the
19	exhibits.
20	THE HEARING EXAMINER: Mr. Savage,
21	please.
22	MR. SAVAGE: Yes.
23	THE HEARING EXAMINER: You don't need
24	to ask a question three times.
25	MR. SAVAGE: Okay. Thank you. There
	Page 57

was some stuttering in there, and I didn't quite catch
everything.
BY MR. SAVAGE:
Q Based on your geological analysis of these
three sections and in the isopachs you may have
drafted internally and have available, how would you
describe the porosity and net pay as you move from
section 14 to section 16?
A Without the net pays and isopachs and the
more granular maps in front of me, I I can't
confidently tell you what what that looks like.
Q Can you speak in very general terms? For
example, would section 14 have less net pay and
section 16 have more net pay? Could you generalize in
that manner?
A Again without having the net pay front me,
I I cannot speak to that without having the map in
front of me.
MR. SAVAGE: Mr. Hearing Examiner, is
there opportunity for him to obtain a map such as that
to address this question in general terms? I
understand that he may not want to speak to very
specific data because obviously he did not include it
in the hearing packet, but I believe it's fair to ask
him, as a geologist, to discuss the general

1	differences as you move from 14, 15, to 16.
2	THE HEARING EXAMINER: Ms. Vance?
3	MS. VANCE: Mr. Hearing Examiner, they
4	have their own geologist who can speak to this. So if
5	he wants to have an answer on this, then he can use
6	his own geologist to answer these questions.
7	THE HEARING EXAMINER: I think what I'm
8	being asked to rule on is whether or not Mr. Savage
9	can ask your expert witness his expert opinion about
10	something. Is that what you're asking?
11	MR. SAVAGE: Yes, sir. I think there's
12	enough
13	THE HEARING EXAMINER: Okay.
14	Mr. Savage, I understand.
15	MR. SAVAGE: Yes. Thank you.
16	THE HEARING EXAMINER: I'm going to
17	overrule the objection because that's the definition
18	of an expert witness. However, the witness, if he
19	doesn't know, can say he doesn't know, and we'll move
20	on.
21	So go ahead, Mr. Savage, ask your
22	question.
23	BY MR. SAVAGE:
24	Q Based on what Mr. Cantin, you said that
25	you have done isopach analysis. Based on what you can

1	recall and what you can remember, can you describe the
2	general difference in terms of porosity and net pay
3	between section 14, 15, and 16?
4	A If I'm going to recall without looking at a
5	map, I would say there's very analogous geology
6	between our our two sections that we have. But
7	that's again, that just me recalling. I would have
8	to have a map to be able to confirm.
9	Q So if I understand that right, what you say
10	generally may not be an accurate statement.
11	A Again, without the map in front of me, I
12	cannot give you the most accurate version of the
13	statement.
	Q Yep. Thank you, Mr. Cantin.
14	Q Tep. India you, Mr. Cancin.
14 15	MR. SAVAGE: I'll move on, Mr. Hearing
15	MR. SAVAGE: I'll move on, Mr. Hearing
15 16	MR. SAVAGE: I'll move on, Mr. Hearing Examiner.
15 16 17	MR. SAVAGE: I'll move on, Mr. Hearing Examiner. BY MR. SAVAGE:
15 16 17 18	MR. SAVAGE: I'll move on, Mr. Hearing Examiner. BY MR. SAVAGE: Q I direct your attention to Exhibit D-2. Are
15 16 17 18	MR. SAVAGE: I'll move on, Mr. Hearing Examiner.  BY MR. SAVAGE:  Q I direct your attention to Exhibit D-2. Are you aware of how long the laterals are 5 to 6 miles to
15 16 17 18 19	MR. SAVAGE: I'll move on, Mr. Hearing Examiner.  BY MR. SAVAGE:  Q I direct your attention to Exhibit D-2. Are you aware of how long the laterals are 5 to 6 miles to the west of the lands depicted in D-2?
15 16 17 18 19 20	MR. SAVAGE: I'll move on, Mr. Hearing  Examiner.  BY MR. SAVAGE:  Q I direct your attention to Exhibit D-2. Are you aware of how long the laterals are 5 to 6 miles to the west of the lands depicted in D-2?  A Five to 6 miles to the west in D-2? My
15 16 17 18 19 20 21	MR. SAVAGE: I'll move on, Mr. Hearing Examiner.  BY MR. SAVAGE:  Q I direct your attention to Exhibit D-2. Are you aware of how long the laterals are 5 to 6 miles to the west of the lands depicted in D-2?  A Five to 6 miles to the west in D-2? My exhibit is only showing 2 to 3 miles to the west.
15 16 17 18 19 20 21 22	MR. SAVAGE: I'll move on, Mr. Hearing Examiner.  BY MR. SAVAGE:  Q I direct your attention to Exhibit D-2. Are you aware of how long the laterals are 5 to 6 miles to the west of the lands depicted in D-2?  A Five to 6 miles to the west in D-2? My exhibit is only showing 2 to 3 miles to the west.  Q That's correct. Are you familiar with the

1	Q Are the majority of the laterals 2-mile
2	wells in that area?
3	A That is correct.
4	Q Okay. So wouldn't extending your units from
5	section 14 to section 13 instead of 15 and 14,
6	wouldn't this better reflect the sequential 2-mile
7	development? You starting from the west, you move
8	east. It looks like, as you point out, that most of
9	this is 2-mile laterals. Isn't there an opportunity
10	to develop 14 and 13 instead of 15 and 14?
11	A I'm not sure on our ownership in 13, so I
12	would not be able to answer that.
13	Q Mr. Cantin, are you familiar with the
14	geology of the Third Bone Spring in Permian's proposed
15	units?
16	A I'm familiar with the Third Bone Spring,
17	yes.
18	Q Is it correct that there exists a depth
19	severance in the Third Bone Spring in Permian units?
20	A I would refer to land on that. I have heard
21	of it. I I don't know the the details of it,
22	though.
23	Q Okay. Let's assume that there is a depth
24	severance. I believe there's been discussion of that.
25	Are there any geological barriers that would separate
	Page 61

1	product above a depth severance and a product below
2	the depth severance within the Third Bone Spring if
3	the depth severance were, say, like in the lower
4	third?
5	A Sorry. Can you repeat that question?
6	I'm I'm
7	Q Yeah. I guess
8	A I'm give me one second. Let me scroll to
9	that slide
10	Q Yes, sir.
11	A on my cross-section real quick. Okay.
12	What's the question?
13	Q So I guess the question is, are there any
14	geological barriers that would prevent open
15	communication between the interval above the depth
16	severance, a depth severance, and the interval below a
17	depth severance in the Third Bone Spring?
18	A Within the Third just the Third Bone
19	Spring? I mean
20	Q Yes, sir. So you have the Third Bone Spring
21	interval from the top of the Third Bone Spring to the
22	bottom of the Third Bone Spring. Then let's assume
23	that there's a depth severance. Let's say it's in the
24	lower one-third. Are there any geological barriers,
25	baffling, that would separate the product in the upper

1	part of the Third Bone Spring above the severance from
2	below the Third Bone Spring, or is there open
3	communication within the entire
4	A I'm sorry. I don't know really exactly
5	where this depth severance is and how you're speaking
6	to it.
7	Q Okay. Mr. Cantin, let's assume that the
8	depth severance is squarely in the middle.
9	A Middle of the Third Bone Spring.
10	Q That's correct. Squarely in the middle.
11	We're going to make that assumption. Based on that
12	assumption, is there open communication of product
13	between the interval above the depth severance and
14	below the depth severance? Is there open
15	communication or is there a geological barrier in the
16	middle of that Third Bone Spring that would prevent
17	open communication?
18	A I think depending on where that severance
19	is, I think in the space between where we'd be
20	drilling it and that depth severance. But I I
21	guess if you're asking if it is above our target zone,
22	then, you know, there probably is it looks like
23	there's no geological baffle that would prevent
24	drainage.
25	Q Okay. Thank you. So as a follow-up
	Page 63

1	question, do you consider the entire Third Bone Spring
2	to be a single reservoir, a single tank?
3	A I would not consider the entire Third Bone
4	Spring as a tank. I do not think you're physically
5	draining the entire Third Bone Spring by putting one
6	lateral in the base of it.
7	Q Would it substantially drain the Third Bone
8	Spring? If there's limitations, would it
9	substantially drain the Third Bone Spring?
10	A I'm not sure how much it would drain, but it
11	would drain some of the Third Bone Spring, yes.
12	Q And that would be above
13	A the exact footage above above. I
14	can't give you a footage of how much it would drain.
15	MR. SAVAGE: Okay. Thank you. Thank
16	you, Mr. Cantin.
17	That concludes my questions. Thank
18	you.
19	THE HEARING EXAMINER: Let's go to
20	Mr. McClure.
21	MR. MCCLURE: Thank you, Mr. Hearing
22	Examiner.
23	CROSS-EXAMINATION
24	BY MR. MCCLURE:
25	Q Mr. Cantin, in your geology exhibit, do you
	Page 64

1	include the depth severance depicted anywhere here?
2	A Not within these exhibits. I did not.
3	Again, I'm not very clear on what that depth severance
4	is or the or where it is within the Third Bone
5	Spring or the wording behind it. I'd refer to the
6	landman for for that that definition. I did not
7	include it on on this exhibit. I did not.
8	Q Did you include a depiction of any of the
9	proposed laterals anywhere in your exhibits?
LO	A The horizontal target on Exhibit 6 of my
L1	my exhibits, the black box that depicts the target
L2	interval where we would likely be drilling this
L3	target.
L <b>4</b>	Q Okay. And that's on page 150 of 192? Is
L5	that correct? I don't know if you have it in front of
L6	you on the page numbers or not.
L7	A I think I just have my open exhibits right
L8	now. It'd be on 7 of my exhibits. But yes, it's
L9	the the two the two wells on the west/east
20	cross-section, 8-A prime.
21	Q Yeah. It says Exhibit D-6-150 in the bottom
22	right corner?
23	A I believe we are looking at the yeah.
24	Exhibit number D-6 is is what I see.
25	Q Okay. I think I'm with you.

1	A Thanks. Yeah
2	Q Have you
3	A Go ahead. I'm sorry.
4	Q Have you included a gun-barrel diagram
5	anywhere in your exhibits?
6	A I I did not include one. I did not.
7	MR. MCCLURE: Okay. I have no
8	additional questions, but I will request some amended
9	exhibits. Mr. Hearing Examiner, would it be most
10	appropriate to wait until later to make a list of
11	amended exhibits I would like?
12	THE HEARING EXAMINER: Yes, please.
13	MR. MCCLURE: Okay. I have no further
14	questions.
15	THE HEARING EXAMINER: Thank you,
16	Mr. McClure.
17	Ms. Vance, redirect?
18	MS. LUCK: Mr. Hearing Examiner, may I
19	ask a question for my client?
20	THE HEARING EXAMINER: By all means.
21	CROSS-EXAMINATION
22	BY MS. LUCK:
23	Q I just wanted to ask, turning to this
24	Exhibit D-6, if the geologist, Mr. Cantin, could
25	describe any geologic barriers that are shown on the
	Page 66

1	exhibit between the Second and the Third Bone Spring?
2	A Yeah. Between the second and the Third Bone
3	Spring, there is a substantial carbonate that looks to
4	be 200, 225 feet between the target in the Second Bone
5	and the target that I have marked in the Third Bone
6	Spring, so those black dashed boxes, that I believe
7	act as a substantial barrier in between the two
8	targets.
9	Q Okay. And then within the Third Bone
10	Spring, are there any geologic barriers to development
11	within the Third Bone Spring? Do you see any that are
12	shown on this type log?
13	A I do not. It is mainly mainly sand. I
14	do not see any tight rock or carbonates that would act
15	as baffle
16	Q Okay.
17	A within the Third Bone sand.
18	THE WITNESS: Okay. Well, thank you.
19	THE HEARING EXAMINER: Ms. Luck, are
20	you done with your cross-examination?
21	MS. LUCK: Yes, Mr. Hearing Examiner.
22	THE HEARING EXAMINER: Thank you.
23	Ms. Vance, any redirect?
24	MS. VANCE: Just one question.
25	//
	Page 67

1	REDIRECT EXAMINATION
2	BY MS. VANCE:
3	Q Mr. Cantin, Mr. Savage's questions regarding
4	the drainage. Would you say that those are more
5	geology or reservoir engineering questions?
6	A I I believe they they kind of point
7	towards more the the engineering side.
8	MS. VANCE: Thank you. That's all I
9	have.
10	THE WITNESS: Thank you.
11	THE HEARING EXAMINER: Mr. Savage,
12	anything further on that one question?
13	MR. SAVAGE: On that one question?
14	THE HEARING EXAMINER: Yes.
15	RECROSS-EXAMINATION
16	BY MR. SAVAGE:
17	Q So, Mr. Cantin, when you evaluate the
18	porosity and the potential for hydrocarbons to reside
19	geologically within a formation, does that not also
20	impact what a well would produce within that
21	formation? Is there any kind of general correlation
22	between the two?
23	A I'm sorry. Can can you repeat that?
24	Q Yes. When you evaluate the porosity of a
25	formation to determine the amount of hydrocarbons
	Page 68

1	potentially within that formation, does this not speak
2	to the ability to drain that formation or produce that
3	formation?
4	A Yes. It does in my in my evaluation.
5	Correct.
6	MR. SAVAGE: Yep. Thank you.
7	THE HEARING EXAMINER: Okay. All
8	right. Mr. Cantin, thank you.
9	Mr. Hamilton, would you come on over to
10	the other microphone?
11	THE WITNESS: Thank you.
12	THE HEARING EXAMINER: Ms. Vance?
13	MS. VANCE: Okay. Sorry.
14	WHEREUPON,
15	SAM HAMILTON,
16	called as a witness and having been first duly sworn
17	to tell the truth, the whole truth, and nothing but
18	the truth, was examined and testified as follows:
19	DIRECT EXAMINATION
20	BY MS. VANCE:
21	Q Mr. Hamilton, can you state your full name
22	and spell it for the court reporter, please?
23	A Yes, ma'am. Sam Hamilton, S-A-M
24	H-A-M-I-L-T-O-N.
25	Q Okay. And by whom are you employed and in
	Page 69
	rage 09

1	what capacity?
2	A Permian Resources as a reservoir engineer.
3	Q And obviously we know you have not
4	previously testified, but you have been admitted as an
5	expert in your field, and so we know that your
6	credentials have been accepted today. Now, are you
7	familiar with the applications filed in these
8	competing cases?
9	A Yes, Ma'am.
10	Q Okay. And you're familiar with the lands
11	within the proposed spacing units?
12	A Yes, ma'am.
13	Q Okay. And you prepared written testimony in
14	advance of today's hearing?
15	A Yes, ma'am.
16	Q Okay. And your statement is marked as
17	Exhibit E. Is that correct?
18	A Yes, ma'am.
19	Q And then the exhibits you prepared, they are
20	marked as Exhibits E-1 through E-6?
21	A Yes, ma'am.
22	Q Now do you have any corrections,
23	modifications, clarifications regarding any of those
24	exhibits, and
25	A My only clarification I'm sorry. Go
	Page 70

1	ahead.
2	Q And if you do, can you please provide the
3	page number so that the Examiners can look at that?
4	A Yes, ma'am. With respect to Exhibit E-4 on
5	page 2 or slide 2 of the exhibits, I just want to
6	clarify that the primary purpose of that economic
7	analysis is to indicate the potential outcome
8	associated with two additional wells being drilled
9	within the subject ESU and the incremental volume and
10	value associated with those two wells.
11	Q Okay. And that would be in our hearing
12	packet. It's page 159 of 192, just for clarification.
13	Now, do you adopt your written testimony and
14	exhibits under oath?
15	A Yes, ma'am, I do.
16	Q And then you affirm the veracity of the
17	exhibits that you prepared?
18	A Yes, ma'am.
19	MS. VANCE: Okay. So, Mr. Hearing
20	Examiner, I would tender Mr. Hamilton as a witness and
21	make him available for cross-examination.
22	THE HEARING EXAMINER: Thank you,
23	Ms. Vance.
24	Mr. Savage?
25	MR. SAVAGE: Yeah. Thank you,
	Page 71
	1490 /1

1	Mr. Hearing Examiner.
2	CROSS-EXAMINATION
3	BY MR. SAVAGE:
4	Q Mr. Hamilton, again, thank you for your time
5	about these questions. If you happen not to hear a
6	question or if a question isn't clear to you, please
7	do not hesitate to ask me to repeat or rephrase the
8	question.
9	Mr. Hamilton, I would like to direct your
10	attention to Exhibit E-3, and I'm just going to ask
11	some basic questions about these just to kind of get
12	an orientation towards the exhibits. So I apologize
13	if it looks like it's obvious or apparent. But is
14	your comparison of average well performance graph an
15	average of all V-F wells on Exhibit E-3? And that's
16	page 158.
17	A No, sir. It includes the ten wells that V-F
18	has drilled in Eddy County since 2020.
19	Q Okay. And of those, this is an average of
20	those wells, those limited number of wells. Correct?
21	A Yes, sir. An average that has been
22	normalized for the lateral length of the well.
23	Q Okay. At the bottom of E-3, you have a
24	statement that says "comparing ten V-F Eddy horizontal
25	wells to most analogous 81 PR horizontal wells." What
	Page 72
	1490 72

1	is your specific criteria for analogous when you state
2	that you make that comparison?
3	A They are within the same formation, so the
4	Second Bone Spring as well as the Third Bone Spring.
5	And they are in geologically analogous rock within a
6	reasonable amount distance from the V-F developments.
7	Q Is the length consistent? Is that part of
8	the analogous, the length of the interval?
9	A The length of the interval?
10	Q Of the well being compared?
11	A The the well set in its entirety has been
12	normalized to 10,000 feet of lateral length, so the
13	comparison is consistent. Yes, sir.
14	Q But it includes a mixture of different
15	interval lengths in terms of the individual wells. Is
16	that correct?
17	A Both both data sets contain a mixture of
18	lateral lengths. Yes, sir.
19	Q Okay. Are there other wells in this data
20	set that would not be in the same formation? So for
21	example, if I can clarify the question, are all the
22	wells in this data set in the Second Bone Spring?
23	A No, sir. This data set includes the Second
24	and Third Bone Spring.
25	Q So some wells are in the Second Bone Spring
	Page 73

1	and some wells are in the Third Bone Spring.
2	A Yes, sir. That is correct.
3	Q Okay. So when you make the comparison, do
4	you pick which wells would be analogous for various
5	comparative situations?
6	A Can you repeat the question?
7	Q Yeah. So is there opportunity to select
8	let's say you want to weight it towards the Second
9	Bone Spring in your wells, for example, but or
10	weight it towards the Third Bone Spring. Is there
11	opportunity to weight the data in different ways by
12	selecting which wells you're going to include as the
13	Third Bone Spring and which wells included for the
14	Second Bone Spring?
15	A I can't comment on the opportunity. If we
16	had wells within the criteria that was previously
17	described that met the Second Bone Spring or Third
18	Bone Spring designation, they were included within the
19	dataset.
20	Q Okay. Thank you. And you mentioned that it
21	was normalized to 10,000 feet lateral foot.
22	Correct?
23	A Yes, sir.
24	Q Did you calculate the normalization yourself
25	or did you use an automated switch on the software to
	Page 74

1	normalize?
2	A We have a proprietary in-house normalization
3	algorithm which was used in this case.
4	Q And that's one of the I believe I so,
5	for example, in lower Exhibit E-5, there is a
6	normalization switch on that
7	A Yes, sir. That is correct.
8	Q And that switches on your are you
9	familiar with the algorithm that this switch uses?
LO	A We are talking about two separate softwares
L1	here. Which one are you referring to, sir?
L2	Q Okay. Could you explain the two softwares
L3	that we're dealing with?
L4	A We're using a proprietary in-house Spotfire
L5	software as well as a as ComboCurve.
L6	Q And are you familiar with the algorithms
L7	that these softwares use?
L8	A At high level, generally. Yes, sir.
L9	Q But not specifically. Is that correct?
20	A I have a in my opinion, a sufficient
21	understanding of them, but I'm not an expert. I did
22	not create the softwares.
23	Q So would it be fair to say that you really
24	don't have a clear understanding of the biases and any
25	distortions that the normalization software algorithm

1	might cause or might be inherent to the algorithm?
2	A No.
3	Q That's no, you do not fully understand the
4	details on that?
5	A No, sir. That's no that I do not have an
6	understanding of the bias.
7	Q Okay. Thank you. Permian is proposing to
8	drill a 1-mile well in section 14 as part of its
9	development plan. Is that correct?
10	A Yes, sir, it is.
11	Q And Permian has already invested in and
12	drilled a number of 1-mile wells in Eddy County since
13	2020. Is that correct?
14	A Yes, sir.
15	Q I don't have the number on that. Can you
16	tell me approximately how many 1-mile wells Permian
17	Resources has drilled in Eddy County since 2020?
18	A I can't quote that number off the top of my
19	head, sir.
20	Q Would it be less or more than 50?
21	A My preference would be not to speculate.
22	Q Yeah. I understand that. Thank you. Since
23	Permian regularly invests in 1-mile wells in this
24	area, why doesn't Permian develop all of section 14
25	with 1-mile wells which would allow V-F to develop
	Page 76

1	section 15 and 16? Would that be a viable option?
2	A It would not be the most favorable economic
3	outcome for Permian Resources or for our working
4	interest partners.
5	Q But do you agree that the OCD views 1-mile
6	wells as economical?
7	A I would prefer not to comment on the OCD's
8	views. I'm not necessarily at dispute on how they
9	view our internal economics for 1-mile versus 2-mile
10	wells.
11	Q By Permian drilling 1-mile wells in a number
12	of circumstances, is it fair to say that they also in
13	certain circumstances view 1-mile wells as economical?
14	A Yes.
15	Q Thank you. In your area Second Bone
16	Spring map, who has drilled the wells to the west of
17	section 16 adjacent to Slim Jim?
18	A I believe that development is primarily
19	Mewbourne.
20	Q Okay. And what is the length of Mewbourne's
21	wells?
22	A Typically they develop at 2 miles.
23	Q And isn't there room and space east of
24	section 14 for Permian Resources to extend its
25	development plans east?
	Page 77

1	A I'm not aware of the ownership or
2	development status of the acreage to the east of that
3	section.
4	Q Okay. But if the ownership was available,
5	Permian Resources could extend their development plan
6	east to develop 2-mile wells. Is that correct?
7	A In the hypothetical situation that you're
8	describing, I don't see why that's not a possibility.
9	Q Yes, sir. Thank you. In your Exhibit 6,
10	you represent that V-F's EUR is 513.94 Mbbl, million
11	barrels, and Permian's EUR is 529.27 Mbbl, million
12	barrels. Do you agree with that description?
13	A Thousand barrels, but yes, sir, otherwise.
14	Q I'm sorry. Thank you. Can you clarify what
15	the quantity is on that?
16	A Yes, sir. V-F's type curve results in an
17	EUR of 514,000 barrels, whereas PR's Second Bone
18	Spring type curve results in a EUR of 529,000 barrels.
19	Q Okay. Thank you for that clarification.
20	A Yes, sir.
21	Q What factors mostly affect EUR? Can you
22	give like a general list of factors that would be a
23	high priority in understanding EUR?
24	A Production rates would be the first decline
25	curve as well as the shape of the curve.

1	Q Would geology be a primary factor on
2	understanding the EUR?
3	A It would.
4	Q And then in a reservoir engineering
5	evaluation, I would assume that would also be correct.
6	A Yes, sir.
7	Q Okay. And which of the list of factors
8	would you say is the most important?
9	A I would want to evaluate that on a
10	case-by-case basis, I think.
11	Q Hypothetically, looking at a case, could
12	geology become the primary factor in determining EUR?
13	A Absent other information, it could.
14	Q Okay. Thank you. Would it be accurate to
15	say, looking at your type curve, your Second Bone
16	Spring type curve or V-Fs Second Bone Spring type
17	curve is within about 2.89 percent of Permian's Second
18	Bone Spring type curve?
19	A From a EUR perspective? Is that what you're
20	referencing?
21	Q If you could describe the differences
22	between those two curves in terms of percentages.
23	A I don't have the exact percentages in front
24	of me, but I do know that PR's type curve demonstrates
25	a higher peak rate versus V-F's and a modestly higher

1	EUR.
2	Q And we're talking about what threshold
3	percentages? Like 3 percent?
4	A The difference between EURs is significantly
5	smaller than that of peak rates. Yes, sir.
6	Q Okay. Could any biases or distortions in
7	the normalization of switch and algorithm that you do
8	not have the full details on contribute to certain
9	minor differences or differences in the actual EUR?
LO	A It's possible.
L1	Q All right. Would it be fair to say that if
L2	the differences exist, that if you're accurate in your
L3	description of the difference, wouldn't it result in
L4	only about a difference of about 300 barrels per well
L5	per year?
L6	A I haven't done the math on that, but that
L 7	sounds reasonable.
L8	Q That sounds reasonable? Thank you. Permian
L9	Resources has described the depth severance in the
20	Third Bone Spring. Is that correct?
21	A I'm sorry. Can you repeat the question?
22	Q Yep. I wanted to ask about the depth
23	severance in the Third Bone Spring. Do you agree that
24	Permian Resources has acknowledged that there's a
25	depth severance in the Third Bone Spring?
	Page 80
	Page 80

1	A I believe that is true. I'm not as up to
2	speed on the depth severance.
3	Q Okay. Does the Third Bone Spring represent
4	one reservoir? Is it one tank?
5	A Typically we rely more on the geological
6	analysis of that, in which case I would defer to our
7	geology department, but it sounds like it is not
8	sufficiently drained by one well.
9	Q Okay. Thank you. But as an engineer, you
10	know where you are planning to land your wells that
11	you want to drill in the Third Bone Spring. Correct?
12	A With specific respect to this subject ESU or
13	generally?
14	Q With respect to this. So are you planning
15	to land and drill your Third Bone Spring well below or
16	above the depth severance? Well, let me ask it this
17	way since you don't know exactly where the depth
18	severance is. Are you planning to drill in the lower
19	one-third of the Bone Spring or in the top one-third
20	of the Bone Spring?
21	A My understanding is that we are targeting
22	some area in the lower portion, but I am not exactly
23	certain what that is.
24	Q Okay. And why do you locate wellbores in
25	the bottom part of the Third Bone Spring instead of
	Page 81

1	the top part of the interval?
2	A Typically that is something that we would
3	defer to geology with respect to targeting, and we
4	would generate that in unison with their input.
5	Q Okay. Would it have anything to do with the
6	fact that, from an engineering point of view, when you
7	frack, do the fractures go up typically or do they go
8	down?
9	A They go in a variety of directions. They're
10	beyond the control of of our completions team.
11	Q So it would be fair to say that they could
12	or would frack upward into the upper part of the Third
13	Bone Spring? Would that be a fair statement?
14	A It's possible.
15	Q Okay. In your expert opinion, if the well
16	is drilled in the lower part, let's assume it's
17	drilled below the depth severance, would that well
18	produce hydrocarbons from both the lower part of the
19	Third Bone Spring below the severance and the upper
20	part of the Third Bone Spring above the severance?
21	A I really can't comment on that.
22	Q As a reservoir engineer, you can't comment
23	on how a wellbore would produce the interval in which
24	it's drilled?
25	A It depends on the completions technique and
	Page 82

1	many other variables, so I really don't know exactly
2	how far we would be permeating into other areas of the
3	zone.
4	Q Okay. So you're not aware of the completion
5	techniques for the wells that you proposed?
6	A I do not know exactly what the details of
7	the completions are, no.
8	Q How much do you not know? Could you
9	describe what you know and what you don't know at this
10	time?
11	A I don't really understand the question. I
12	know I know a good bit within the scope of what is
13	detailed to me as a reservoir engineer designing the
14	development of this area.
15	Q Okay. So would it be fair to say that your
16	development plan is not complete because you do not
17	know the full scope of how you're going to drill these
18	wells and complete them?
19	A The development is still several months out,
20	if not years, and it is going to incorporate other
21	facets of our team.
22	Q So the OCD cannot review the full details of
23	your plan is that correct today?
24	A No.
25	Q And they cannot ask questions that would
	Page 83

1	give them information about the details of your plan
2	today. Is that correct?
3	A They're welcome to ask questions. I don't
4	believe we would hold anything back, certainly.
5	Q But it sounds like you would not be able to
6	provide information that would be critical to
7	understanding how this Third Bone Spring well would
8	produce.
9	MS. VANCE: Mr. Hearing Examiner, I'd
10	like to object. These questions are for completion.
11	Mr. Hamilton is a reservoir engineer, and these
12	questions should be limited to what he is here to
13	speak on.
14	THE HEARING EXAMINER: Mr. Savage?
15	MR. SAVAGE: Yes, sir. So today,
16	Permian Resources proposed to drill wells in the lower
17	Third Bone Spring. We've established that. That is
18	going to produce, as the geologist pointed out and as
19	an engineer, that it's going to produce interest in
20	hydrocarbons from owners in the upper part of the
21	Third Bone Spring. That's going to violate or impact
22	their correlative rights. We need to know the details
23	of that extraction to fully understand this
24	development plan at this time.
25	I think these are valid questions. I'm
	Page 84

1	kind of surprised that Permian Resources come to this
2	hearing without information along those lines about
3	the nature of the production from the Third Bone
4	Spring, and I think they're valid questions.
5	THE HEARING EXAMINER: I don't think
6	the objection is whether they're valid questions or
7	not. I think the objection is, is this the right
8	witness to ask these questions to. I think you've
9	elicited the data you need to make that argument. In
10	fact, you just did make that argument. And maybe
11	that's part of your opening argument. I'm not sure,
12	but I'll leave that to you.
13	So I sustain the objection, but I'm not
14	striking any of the questions or answers that you have
15	achieved so far. Let's stick to what this witness is
16	an expert in. Do you have any other questions for
17	this witness?
18	MR. SAVAGE: Yes, sir. Please.
19	BY MR. SAVAGE:
20	Q Mr. Hamilton, I would like to direct your
21	attention to your Exhibit E-4.
22	A Yes, sir.
23	Q You state you tested higher density to the
24	south, and it looks like you list the wells Pinkie
25	Pie, Long John, and Silver. Is that correct?

1	A Yes, sir, it is.
2	Q Have you received production results after
3	drilling these wells?
4	A We have preliminary production data on those
5	wells, yes.
6	Q When did you receive the production data?
7	A The wells came online in late October, early
8	November, so around those dates.
9	Q Does Permian Resources have an obligation
10	requirement to report the production to the OCD within
11	45 days under the rules?
12	A Can't comment on those regulatory rules.
13	Q Are you familiar with the C-145 report?
14	A Not directly. No, sir. That's outside of
15	the scope of what I do as a reservoir engineer.
16	MR. SAVAGE: Okay. Thank you,
17	Mr. Hamilton. I appreciate your time. That's all the
18	questions I have.
19	THE HEARING EXAMINER: Ms. Luck?
20	MS. LUCK: Thank you, Mr. Hearing
21	Examiner. I just have a few questions.
22	CROSS-EXAMINATION
23	BY MS. LUCK:
24	Q So, Mr. Hamilton, I'm not a scientist. I
25	need just a little bit of help understanding why the
	Page 86

1	curve used wells from both the Second and the Third
2	Bone Spring. Is that because that's a single source
3	of production, or why would you use both for that
4	curve?
5	A You're referring to Exhibit E-3?
6	Q Yes, sir. Sorry.
7	A My understanding was that the hearing was
8	relevant to the Second Bone Spring as well as the
9	Third Bone Spring, and the intent with this slide was
10	to show that PR drills wells that produce cumulatively
11	more oil than V-F does within those formations.
12	Q Okay. Were you involved in this case that
13	Ms. Vance mentioned that went to hearing in November,
14	the 24939 case that dealt with the upper portions of
15	Bone Spring in these sections?
16	A No, ma'am.
17	Q Okay. Well, can you speak to the Second and
18	the First Bone Spring in these sections?
19	A I cannot.
20	Q Okay. Do you have any knowledge about when
21	these Slim Jim wells will be drilled?
22	A They are somewhere out in the future, but we
23	are still evaluating when we would like to develop the
24	acreage.
25	Q Okay. But at this point in time, none of

1	the wells in the First, Second, or Third have been
2	drilled.
3	A In the First, Second, or Third in Slim Jim?
4	No.
5	Q Okay. I guess what I'm trying to get at
6	here is does it matter what order the wells are
7	drilled, in your opinion?
8	A Does it matter in what context?
9	Q In what order, in terms of will the Second
10	Bone Spring be drilled first? Will the Third Bone
11	Spring be drilled first? I mean, I'm just wondering
12	because my client's interest was pooled in those upper
13	portions of the Bone Spring, and I'm trying to get at
14	how much her interest will be affected by this lower
15	drilling and what order it will happen in.
16	A I don't I can't comment on that. That
17	would be within a different department that makes
18	decisions as to when we develop in what order.
19	Q But you don't have any opinion on how the
20	formation will be drained.
21	A Can you repeat the question please?
22	Q Sorry. Do you have an opinion on how the
23	formation will be drained or the best way for the Bone
24	Spring formation to be developed?
25	A We have lined out what we believe to be an
	Page 88

1	effective way to develop the Bone Spring within the
2	Second and Third in the densities that we mentioned.
3	Q Okay. And does that include an allocation
4	of production as between the Second and Third Bone
5	Spring?
6	A I don't know.
7	MS. LUCK: Okay. Thank you.
8	THE HEARING EXAMINER: Mr. McClure?
9	MR. MCCLURE: Mr. Hearing Examiner, I
10	have no questions for this expert.
11	THE HEARING EXAMINER: Ms. Vance, are
12	there any follow-up to Mr. Savage's or Ms. Luck's
13	cross-examination questions?
14	MS. VANCE: Yes. I just have a couple
15	of questions.
16	THE HEARING EXAMINER: Please.
17	REDIRECT EXAMINATION
18	BY MS. VANCE:
19	Q So, Mr. Hamilton, Mr. Savage was asking you
20	about the algorithm. Do you think it's a fair
21	representation of the curve?
22	A Yes, ma'am, I do.
23	Q Okay. And then, also, Mr. Savage was
24	talking about, you know, some different ideas of doing
25	the development here, and I know you're not the

1	landman, but you would agree that Permian is the
2	majority interest holder in section 15 in which the
3	two plans overlap. Correct?
4	MR. SAVAGE: I'm going to object to
5	that question.
6	THE HEARING EXAMINER: What are you
7	objecting to, Mr. Savage?
8	MR. SAVAGE: That's squarely a landman
9	question. For example, the engineer could not even
10	discuss the location of the severance because that was
11	a landman question. Working interest is a landman
12	question.
13	THE HEARING EXAMINER: Okay. So the
14	objection is specifically what is the objection?
15	MR. SAVAGE: The objection is to strike
16	that question.
17	THE HEARING EXAMINER: The objection is
18	based on what?
19	MR. SAVAGE: The objection is based on
20	that this is a question about working interest and
21	it's the landman who calculates the working interest.
22	THE HEARING EXAMINER: So, Mr. Savage,
23	when I went back to Ms. Vance for redirect, it was
24	based on the scope of your cross-examination
25	questions. So are you suggesting

1	MR. SAVAGE: Yes, yes. And it's
2	outside the scope.
3	THE HEARING EXAMINER: That's what
4	you're
5	MR. SAVAGE: Yes, sir.
6	THE HEARING EXAMINER: So that's what
7	the objection is?
8	MR. SAVAGE: Thank you.
9	THE HEARING EXAMINER: Ms. Vance,
10	outside the scope.
11	MS. VANCE: He has personal knowledge
12	of this so he can speak to it.
13	THE HEARING EXAMINER: Okay. That's
14	not the point, though. The point is that I asked for
15	redirect questions based on the cross-examination
16	questions and the scope of the cross-examination. So
17	what question did Mr. Vance or Ms. Luck ask that this
18	is based on?
19	MS. VANCE: That's okay. We can move
20	on, but just to maybe reframe it because he is
21	familiar with the development here.
22	THE HEARING EXAMINER: Well, hold on,
23	Ms. Vance.
24	MS. VANCE: Sure.
25	THE HEARING EXAMINER: I still have to
	Daga 01
	Page 91

1	make a ruling, and we have to decide what we're doing
2	here. So is that your answer? So you can't point to
3	a question that Mr. Savage or Ms. Luck asked that
4	makes your question within that scope?
5	MS. VANCE: Mr. Savage brought up
6	different development plans and proposals and, you
7	know, Mr. Hamilton, all of the Permian folks, they
8	work hand-in-hand, you know, doing developments. So
9	if he's going to ask questions that open up
10	development that squarely cross over to land, then I
11	think it's fair to ask the question.
12	THE HEARING EXAMINER: Ms. Vance,
13	what's the question again? Would you ask me the
14	question?
15	MS. VANCE: I asked if Permian has the
16	working interest control in section 15, and I'd like
17	to point out that Mr. Savage brought up the
18	differences between 1- and 2-mile. Again, there's
19	crossover with planning, and that has to do with land.
20	THE HEARING EXAMINER: So, Mr. Savage,
21	you've heard an explanation. Explain to me why that's
22	not within the scope of your cross-exam.
23	MR. SAVAGE: So this is a reservoir
24	engineer, very technical, talking about drilling,
25	talking about completion. The questions in relation

1	to 1-mile or 2-mile, that's all within the scope of
2	drilling and completing and producing the reservoir.
3	Producing the reservoir has nothing to do with who
4	owns that interest. It's just extracting the
5	hydrocarbons out of the hole. The
6	THE HEARING EXAMINER: Okay. All
7	right. I understand. Thank you, Mr. Savage.
8	MR. SAVAGE: Ms. Vance, I sustain the
9	objection. Find another way to ask your question
10	within the scope of the cross-examination questions
11	only.
12	MS. VANCE: Okay.
13	BY MS. VANCE:
14	Q So, Mr. Hamilton, because reservoir
15	engineering has to do with looking at the economics of
16	development and comparing 1- to 2-miles, do you think
17	it is more economical, because of Permian's position
18	in this acreage, to develop
19	MR. SAVAGE: Objection. Objection.
20	
	THE HEARING EXAMINER: What's the
21	THE HEARING EXAMINER: What's the objection?
21 22	
	objection?
22	objection?  MR. SAVAGE: The objection is she's
22 23	objection?  MR. SAVAGE: The objection is she's working this question through the back door. It's

1	MR. SAVAGE: Outside the scope. If I
2	may
3	THE HEARING EXAMINER: If you may what?
4	You made an objection, you just leave it at that.
5	MR. SAVAGE: Thank you.
6	THE HEARING EXAMINER: So, Ms. Vance,
7	the objection is the same objection. So can you point
8	to a question that Mr. Savage or Ms. Luck asked that
9	opens the door to this question of interest?
10	MR. SAVAGE: Mr. Savage asked a
11	question to Mr. Hamilton about 1- or 2-mile wells, and
12	he was asking questions about some of the surrounding
13	development and what is taken into account by
14	operators when they're making these decisions, and as
15	a reservoir engineer looking at the economics, he is
16	looking at what makes sense for Permian based on what
17	they own where and where the economics for development
18	is going to lead them.
19	THE HEARING EXAMINER: Okay. I
20	understand the response. I understand the objection.
21	Let's go back to
22	Mr. Cogswell, can you find the
23	questions that Mr. Savage asked about the 1- and
24	2-mile lateral wells?
25	Would it be helpful to have a 5-minute
	Page 94

1	break?
2	THE REPORTER: Yes.
3	THE HEARING EXAMINER: Yes. Let's have
4	a five-minute break. So we're at 10:30 approximately
5	now. Let's come back on the record at 10:35. Thank
6	you.
7	(Off the record.)
8	THE HEARING EXAMINER: We're back on
9	the record. It's 10:36 a.m. on January 28, 2025.
10	I reviewed the transcript of the
11	questions that Mr. Savage asked the witness, and it
12	does open the door to a question about interest.
13	So would you please frame the question,
14	Ms. Vance, so that the question sits within this
15	expert's field of expertise,
16	BY MS. VANCE:
17	Q Mr. Hamilton, based on your analysis of the
18	economics involved, based on Permian's plan, would you
19	say that you believe that Permian should be allowed to
20	develop, where they are the majority interest owner,
21	how they want to?
22	A Yes, ma'am, I would.
23	Q Thank you. And I just have a couple of more
24	questions. So, Mr. Hamilton, Mr. Savage asked a
25	series of questions related to drainage, and I think

1	I've already asked this, but you are familiar with the
2	applications, including V-F's development. Correct?
3	A Yes, ma'am.
4	Q And you're familiar where their landing
5	zones are, correct?
6	A Generally, yes.
7	Q Okay. And would you say that all of these
8	issues regarding drainage, both parties, then, would
9	have to address?
10	A Yes.
11	MR. SAVAGE: Objection.
12	THE HEARING EXAMINER: Mr. Savage, if
13	you want to object to a question, would you object
14	before the answer is given? Okay. So what's the
15	objection?
16	MR. SAVAGE: The objection is, is
17	there's a major difference between Permian Resources'
18	development plan in the Third Bone Spring and V-F's
19	development plan, and the difference is in V-F's
20	development plan there are no depth severances within
21	that Third Bone Spring at all.
22	THE HEARING EXAMINER: Okay. So what's
23	the objection, though?
24	MR. SAVAGE: So the objection is she
25	states that wouldn't it apply to both in the same
	Page 96

1	the issues that I raised would apply to both issues in
2	the same way, and the answer is no. I would say the
3	foundation of that question is wrong. It's question
4	that is inappropriate for the inquiry.
5	THE HEARING EXAMINER: Okay. So what
6	was the question, Mr. Savage?
7	MR. SAVAGE: So the question was she
8	said you're familiar with V-F's development plan, and
9	he said yes, and she said, wouldn't the drainage
10	issues that I raised in Permian Resources' development
11	plan also apply the same to both parties?
12	THE HEARING EXAMINER: So you're
13	objecting to the accuracy of the answer?
14	MR. SAVAGE: I'm objecting to the
15	nature of the question.
16	THE HEARING EXAMINER: What's the
17	objection, though? I need a basis for the objection.
18	MR. SAVAGE: Improper foundation for
19	the question.
20	THE HEARING EXAMINER: Well
21	MR. SAVAGE: Inaccurate foundation.
22	THE HEARING EXAMINER: Wait. Hold on.
23	I'm confused because your exhibits are entered into
24	evidence. Their exhibits are entered into evidence.
25	This is an expert in petroleum reservoir engineering,
	Page 97

_	
1	and she's asking for a comparison between the two
2	development plans. And you're saying that's improper?
3	MR. SAVAGE: She didn't ask for a
4	comparison.
5	THE HEARING EXAMINER: No.
6	MR. SAVAGE: She asked for wouldn't it
7	apply to the same, the issues that I raised, and
8	that
9	THE HEARING EXAMINER: Well
10	MR. SAVAGE: Yes, sir. I understand.
11	This is administrative law, and I'm not
12	THE HEARING EXAMINER: Well, I'm a
13	trial attorney, and I did criminal law for six years.
14	MR. SAVAGE: Yes, you did. You did.
15	THE HEARING EXAMINER: So I needed to
16	know
17	MR. SAVAGE: And your precision in
18	these matters are impressive.
19	THE HEARING EXAMINER: Okay. Thank
20	you. So I'm overruling your objection
21	MR. SAVAGE: Yeah. Fair enough.
22	THE HEARING EXAMINER: without even
23	hearing from Ms. Vance because you have an opportunity
24	to ask this witness recross on this question, and
25	you're more than welcome to do it.

1	MR. SAVAGE: Yes, sir. Yes, sir.
2	Thank you.
3	THE HEARING EXAMINER: So, Ms. Vance,
4	did you get an answer?
5	MS. VANCE: I believe Mr. Hamilton
6	answered.
7	THE HEARING EXAMINER: I thought he
8	did. What was his answer?
9	MS. VANCE: I believe it was well, I
10	think
11	THE HEARING EXAMINER: Why don't you
12	ask the question again?
13	MS. VANCE: Yeah.
14	BY MS. VANCE:
15	Q Mr. Hamilton, based on your review of these
16	applications, do you I'm sorry. Mr. Hamilton,
17	based on the series of questions that Mr. Savage was
18	asking about drainage, do you believe that both
19	parties are going to have to address this as an issue
20	based on their proposed plans?
21	A With respect to how the reservoir is
22	drained, yes.
23	Q Okay. And V-F does not have a reservoir
24	engineer here today. Correct?
25	A Yes, ma'am. That is my understanding.
	Page 99

1	Q They provided no exhibits related to
2	reservoir engineering. Correct?
3	A Yes, ma'am. That is correct.
4	Q And they do not have an expert on
5	completions here today. Correct?
6	A Yes, ma'am. That is correct.
7	Q And they provided no testimony on their
8	proposed completions based on their plans. Correct?
9	A Yes, ma'am. That is correct.
10	MS. VANCE: Okay. Thank you.
11	THE HEARING EXAMINER: Mr. Savage?
12	MR. SAVAGE: Yes. Thank you,
13	Mr. Hearing Examiner.
14	RECROSS-EXAMINATION
15	BY MR. SAVAGE:
16	Q Mr. Hamilton, with respect to that question
17	about whether both parties would be facing the same
18	issues, do you acknowledge that there's a depth
19	severance in Permian's Third Bone Spring that it's
20	developing and that there is not a depth severance in
21	the Third Bone Spring that V-F Petroleum is
22	developing? Do you agree with that?
23	A I suppose that is correct. Yes, sir.
24	MR. SAVAGE: Thank you. That's all the
25	questions I have.

1	THE HEARING EXAMINER: Ms. Vance, did
2	you hear the answer?
3	MS. VANCE: Sorry. I did not. I
4	apologize.
5	THE HEARING EXAMINER: Okay. Well,
6	there was a recross question asked, there was an
7	answer given, and I was going to go back to you and
8	well, let me go to Mr. McClure first.
9	Mr. McClure, do you have any recross on
10	that point?
11	MR. MCCLURE: I do not, Mr. Hearing
12	Examiner.
13	THE HEARING EXAMINER: All right.
14	Thank you, Mr. McClure.
15	Ms. Vance, is there any redirect on
16	that one question that Mr. Mr. Savage asked?
17	MS. VANCE: Sure.
18	THE HEARING EXAMINER: Go ahead.
19	FURTHER REDIRECT EXAMINATION
20	BY MS. VANCE:
21	Q Mr. Hamilton, was my question related to the
22	depth severance or drainage?
23	A My understanding it was with respect to
24	drainage.
25	MS. VANCE: Thank you.
	Page 101

1	THE HEARING EXAMINER: Mr. Savage?
2	FURTHER RECROSS-EXAMINATION
3	BY MR. SAVAGE:
4	Q Mr. Hamilton, is it accurate to say that
5	quantities of drainage of parts of the Third Bone
6	Spring interval would be affected by the depth
7	severance versus not having a depth severance in terms
8	of allocation to the owners?
9	A Can you repeat the question, please?
10	Q I believe this is a okay. So this is a
11	question that kind of crosses into the landman area
12	because we're talking about allocation of interest of
13	the I'll ask this and I'll let, you know, Ms. Vance
14	object if she wants. So is it fair to say that
15	Permian Resources would have to measure and assess
16	drainage across a severance to allocate production
17	above and below the severance and V-F Petroleum does
18	not face that concern? Would that be a fair
19	statement?
20	MS. VANCE: Objection. Mr. Savage is
21	asking for a legal conclusion, and I don't believe
22	that Mr. Hamilton can provide that and
23	MR. SAVAGE: Mr. Hearing Examiner, I
24	believe this falls into economic interest. I mean, I
25	think this

1	THE HEARING EXAMINER: Mr. Savage, I
2	understood your question to try to relate the idea of
3	drainage and depth severance, and now it sounds like
4	your question is getting muddied. I'd rather you
5	rephrase the question to be based on the redirect that
6	Ms. Vance asked.
7	BY MR. SAVAGE:
8	Q Okay. Mr. Hamilton, would it be fair to say
9	that Permian, in dealing with their drainage issue,
10	that they would have to assess how a well drilled in
11	the lower third, below the depth severance, how it
12	would drain the interval above the depth severance and
13	how would it drain the interval below the depth
14	severance? Would that be a fair statement?
15	A Permian Resources would have to conclude
16	allocation of ownership, but that is outside of the
17	scope of of what I do within
18	Q I agree with that. But in terms of
19	drainage, you would have to look at the drainage of
20	the interval above the severance and you would have to
21	look at drainage of the interval below the severance.
22	Is that correct?
23	A That would be a excuse me?
24	Q Yeah. Regardless of how the landman decides
25	to allocate that working interest above and below.

1	Would it be fair to say that the engineer would have
2	to assess how drainage would occur above the severance
3	and how drainage would occur below the severance?
4	A That would be outside of the scope of what I
5	would do in my responsibilities.
6	Q Who would be responsible for that analysis?
7	A I I honestly do not know whether it would
8	be land or or someone on the geo team, but
9	understanding where resources being drained from is
10	inherently uncertain and outside of the scope of what
11	I do.
12	Q So you can't determine how much drainage
13	will occur from a formation in general?
14	A Not with respect to a a number of feet
15	and a depth severance. Certainly not with that level
16	of granularity.
17	MR. SAVAGE: All right. Thank you,
18	Mr. Hamilton.
19	THE HEARING EXAMINER: Ms. Vance?
20	MS. VANCE: Just one follow up
21	question.
22	THE HEARING EXAMINER: Go ahead.
23	FURTHER REDIRECT EXAMINATION
24	BY MS. VANCE:
25	Q So, Mr. Hamilton, you don't know, under the
	Page 104

1	pooling orders and under New Mexico statute, how
2	allocation is done. Correct?
3	A No, ma'am, I do not.
4	THE WITNESS: Okay. Thank you.
5	THE HEARING EXAMINER: Okay. All
6	right. May this witness be excused?
7	THE WITNESS: Thank you.
8	MS. VANCE: Yes.
9	THE HEARING EXAMINER: Okay. Thank
10	you, sir.
11	And thank you, Mr. Cantin.
12	So, Ms. Vance, without the landman
13	being present, do you have any other witnesses you
14	want to call in your case in chief?
15	MS. VANCE: No.
16	THE HEARING EXAMINER: All right.
17	Thank you.
18	Mr. Savage, then we come to you for
19	your case in chief, a brief opening?
20	MR. SAVAGE: Yes. I'm wondering when
21	do you want to address the notice exhibit and get
22	those into the record? Is that something that we
23	should do now or
24	THE HEARING EXAMINER: I'm confused.
25	What do you mean the notice exhibit?

1	MR. SAVAGE: So we went through and Ms.
2	Vance went through Exhibit A, C, D, and E, and then
3	there's an additional notice exhibit.
4	THE HEARING EXAMINER: Do you have a
5	number or can you be more specific because that you're
6	confusing me.
7	MR. SAVAGE: Mine is Exhibit C, but
8	Permian Resources, I believe
9	THE HEARING EXAMINER: So is this the
10	rebuttal exhibits or is this the revised?
11	MR. SAVAGE: No. This is just the
12	remaining notice exhibit.
13	THE HEARING EXAMINER: Is it in the
14	revised amended packet?
15	MR. SAVAGE: No, no. It's in the case
16	in chief. It's in Permian Resources case in chief.
17	THE HEARING EXAMINER: Then that would
18	be their revised amended exhibit
19	MR. SAVAGE: Right, right, right.
20	THE HEARING EXAMINER: because
21	that's the 192 pages that we admitted.
22	MR. SAVAGE: It's Exhibit F. It's
23	Exhibit F.
24	THE HEARING EXAMINER: Exhibit F.
25	Okay. Let me go to Exhibit F. And what are you
	Page 106

Permian Resources' radar, V-F Petroleum began working
on its development plan in these units in section 16
and 15, beginning title in May 2023, sending out its
first well proposals long before Permian Resources
sent theirs in 2023 for sections 16 and 15, and
completing the well proposal process in 2024, thereby
fully developing its set of plans for all of
sections 15 and 16. When Permian Resources became
aware of V-F Petroleum's well proposals, and, as far
as we can ascertain, that was the only way that they
became aware of the potential of 15 and 16, it only
had interest in section 14. And it's based on a
federal lease that when you look at this lease, it's
held by very sketchy production from what V-F
Petroleum can tell.

2.1

Once they received V-F's well proposal and became aware of it, Permian Resources then began acquiring interest in section 15. They cobbled together competing units that cover section 14 and 15, competing with V-F's units in section 15, the section where the competing units overlap. Now, it should be noted, and I think it should be inquired into, when they received those well proposals, they had opportunity to acquire interest in section 13 at that time. Why wouldn't they extend it, if wanted 2-miles,

1	to 14 and 13 and let V-F continue its development plan
2	in its efforts for 16 and 15. But no, it decided to
3	encroach upon V-F Petroleum's development plan instead
4	of coordinating.
5	So today the parties will be
6	presenting, and as they have in part, presenting and
7	reviewing the two competing development plans to see
8	which plan would best prevent waste and protect
9	correlative rights. Based on the lengthy and extended
10	history of V-F Petroleum's efforts to develop 16 and
11	15 and the superior geology in section 16 versus the
12	poor geology in section 14, among other factors which
13	we would show, V-F Petroleum requests that the
14	Division approve V-F Petroleum's applications and
15	development plan and deny Permian Resources'
16	applications and development plan.
17	Thank you.
18	THE HEARING EXAMINER: Okay. Thank
19	you. Let's get your witnesses sworn in. And are they
20	all qualified as experts before this Division?
21	MR. SAVAGE: Yes.
22	THE HEARING EXAMINER: And who are
23	they?
24	MR. SAVAGE: So we have Mr. Jordan Shaw
25	as the landman, and then we have Mr. Mike Burke, or I
	Page 109

1	think he goes by Stephen Burke, as the geologist.
2	THE HEARING EXAMINER: Okay, I see
3	Mr. Shaw, and I'm waiting to see the other witness.
4	MR. SAVAGE: The other witness is
5	present in person.
6	THE HEARING EXAMINER: Oh, he's here in
7	person. Sir, would you come on up to the witness
8	stand and turn on the microphone?
9	And you pressed the little button to
10	turn on the microphone? There you are. You're on,
11	sir.
12	Okay. Mr. Shaw, would you state and
13	spell your name for the record?
14	MR. SHAW: Yes, sir. It is Jordan
15	Shaw, spelled J-O-R-D-A-N, last name S-H-A-W.
16	THE HEARING EXAMINER: Thank you, sir.
17	And you, sir, would you state and spell
18	your name?
19	MR. BURKE: I'm I'm Stephen Burke.
20	Stephen B-U-R-K-E.
21	THE HEARING EXAMINER: And how do you
22	spell Stephen?
23	MR. BURKE: S-T-E-P-H-E-N.
24	THE HEARING EXAMINER: Perfect. And I
25	need you to get closer to the microphone so that we
	Page 110

1	really pick up your voice. Okay?
2	Okay. So would you both raise your
3	right hands, please.
4	Okay. I've heard affirmation from both
5	witnesses.
6	Okay. So Mr. Shaw, what area of
7	expertise have you been previously recognized before
8	this Division?
9	MR. SHAW: As a landman.
10	THE HEARING EXAMINER: Landman. Okay.
11	Very good.
12	And, Mr. Burke?
13	MR. BURKE: I I've been testified
14	before the Commission as a geologist, and I have been
15	admitted to some minor amount of reservoir
16	calculations in the role of a petroleum engineer, but
17	I've not done that in a contested hearing, so it was
18	uncontested
19	THE HEARING EXAMINER: Are you seeking
20	to be admitted as an expert in both geology and
21	petroleum engineering?
22	MR. SAVAGE: May I
23	THE HEARING EXAMINER: Yes.
24	MR. SAVAGE: answer that question.
25	So Mr. Burke is, you know, obviously seeking to be an
	Page 111

1	expert witness in geology. Because he has been
2	accepted as an expert witness in reservoir engineering
3	in certain circumstances before the OCD, I am asking
4	that he be provided some latitude to comment and point
5	out items on Permian's engineering exhibits for the
6	OCD to consider. If Permian feels like he's drawing
7	conclusions that are outside the scope of his
8	expertise, they can certainly object. The OCD can
9	monitor that. But I think it would be useful for him,
10	since he's already been qualified.
11	THE HEARING EXAMINER: Okay. So,
12	Mr. Savage, the way this works is that if you want
13	this witness's testimony to have any weight and to be,
14	you know, reliable in some sense, then he has to be
15	qualified as an expert in that field that he's going
16	to opine on. Otherwise, he's just a lay witness in
17	that field and his testimony won't have any weight.
18	So how do you want to proceed?
19	MR. SAVAGE: Let's proceed that he has
20	been accepted previously as an expert witness in
21	reservoir engineering, and then, you know, let the OCD
22	decide with respect to how Permian responds.
23	THE HEARING EXAMINER: Okay. So,
24	Mr. Burke, under oath, have you been admitted
25	previously as an expert as a geologist?

1	MR. BURKE: Yes.
2	THE HEARING EXAMINER: Very good. Have
3	you been admitted as an expert in petroleum
4	engineering?
5	MR. BURKE: As it pertains to
б	calculation of reserves, yes.
7	THE HEARING EXAMINER: Would you say
8	that a little louder and a little clearer?
9	MR. BURKE: As it pertains to the
10	calculation of reserves.
11	THE HEARING EXAMINER: Calculation of
12	reserves.
13	MR. BURKE: Yes.
14	THE HEARING EXAMINER: Okay. Very
15	good. Okay. Then that's how you'll be recognized
16	today.
17	Mr. Savage, please proceed. Who do you
18	want to question first?
19	MR. SAVAGE: Let's question the landman
20	initially.
21	THE HEARING EXAMINER: Okay. Now,
22	please remember that all of the exhibits have been
23	admitted under stipulation. Please don't repeat
24	things that have already been admitted into writing.
25	What I would like you to do is have this witness adopt

1	their written testimony and their exhibits under oath,
2	make any corrections necessary, and if they need to
3	add something to what they've already submitted, fine.
4	Otherwise, let them be cross-examined, and we'll go
5	from there.
6	MR. SAVAGE: Okay.
7	THE HEARING EXAMINER: Okay.
8	MR. SAVAGE: So if there's an area
9	that yeah.
10	THE HEARING EXAMINER: Obviously,
11	you've heard witnesses from Permian.
12	MR. SAVAGE: It's very truncated.
13	THE HEARING EXAMINER: If you need
14	to well, no. I'm not saying that. I'm not telling
15	you that you need to truncate your case, but I am
16	saying that if you've heard something from Permian's
17	witnesses that you want your witness to expand upon,
18	please, this is the opportunity to do so. But I just
19	don't want him to repeat what he's already written and
20	submitted as pre-filed testimony.
21	MR. SAVAGE: Okay. Thank you.
22	THE HEARING EXAMINER: So, Mr. Shaw?
23	MR. SAVAGE: Yep.
24	MR. SHAW: Yes, sir.
25	THE HEARING EXAMINER: Very good.

1	WHEREUPON,
2	JORDAN SHAW,
3	called as a witness and having been first duly sworn
4	to tell the truth, the whole truth, and nothing but
5	the truth, was examined and testified as follows:
6	DIRECT EXAMINATION
7	BY MR. SAVAGE:
8	Q Mr. Shaw, for the record, please state your
9	full name and your position with V-F Petroleum.
10	A Yes, sir. My full name is Robert Jordan
11	John Shaw, and I'm a landman with V-F Petroleum.
12	Q Are your self-affirmed statements provided
13	as Exhibit A along with the sub-exhibits in the cases
14	24994, 24995, 25115, 25116, and 25117?
15	A Yes, sir.
16	Q And you are familiar with all of these
17	exhibits. Is that correct?
18	A Yes, sir, I am.
19	Q And to the best of your knowledge, your
20	statements and sub-exhibits are correct and accurate
21	subject to any possible addressing a revision to the
22	best of your knowledge?
23	A Yes, sir. Subject to revision. Yes, sir.
24	Absolutely.
25	Q Okay. So I would like to direct your
	Page 115

1	attention to the paragraph 22 in which you point out
2	overlapping unit, the Tamano Federal Com. I'd like to
3	clarify an item here. Did you provide notification to
4	the affected parties of this overlapping unit?
5	A Yes, sir. I provided notice to Mewbourne
6	Operating Company, who's the operator of the well.
7	Oh, sorry. Mewbourne Oil Company, as the operator of
8	the well, and then also to the BLM since the wells
9	Q And it looks like Exhibits A-1 through A-5
L O	are your standard landman exhibits. You have
L1	Exhibits A-6 through A-9. Is there anything in there
L2	that you would like to address for clarification or
L3	revision or correction?
L4	A Not through A-6 through A-9. No, sir.
L 5	Q Okay. In the ownership exhibit, that's A-3,
L6	are there any revisions or corrections you need to
-	
L7	address on ownership?
L /	address on ownership?  A Yes, sir, there is. And this would pertain
	<del>-</del>
L8	A Yes, sir, there is. And this would pertain
L8 L9	A Yes, sir, there is. And this would pertain to every single one of these cases. So it'll pertain
L8 L9 20	A Yes, sir, there is. And this would pertain to every single one of these cases. So it'll pertain to case number 24994, case 24995, case 25115, 25116,
L8 L9 20	A Yes, sir, there is. And this would pertain to every single one of these cases. So it'll pertain to case number 24994, case 24995, case 25115, 25116, and 25117. So in reviewing the exhibits I noticed
L8 L9 20 21	A Yes, sir, there is. And this would pertain to every single one of these cases. So it'll pertain to case number 24994, case 24995, case 25115, 25116, and 25117. So in reviewing the exhibits I noticed that there was a scrivener's error on our report
L8 L9 20 21 22	A Yes, sir, there is. And this would pertain to every single one of these cases. So it'll pertain to case number 24994, case 24995, case 25115, 25116, and 25117. So in reviewing the exhibits I noticed that there was a scrivener's error on our report covering tract I guess it would be the southwest

1	well that was drilled in there, which is the Tamano 15
2	Federal Com number 2, which is situated on a 40-acre
3	spacing in the southwest quarter of the northeast
4	quarter of section 15
5	THE HEARING EXAMINER: Mr. Shaw?
6	THE WITNESS: Yes, sir.
7	THE HEARING EXAMINER: Which exhibit
8	are you speaking of? Give us an exhibit number.
9	THE WITNESS: This is Exhibit this
10	is Exhibit A-3 in in every one of those cases.
11	THE HEARING EXAMINER: Perfect. Thank
12	you. That's what I need to know. Thank you.
13	THE WITNESS: Sorry. Yes, sir.
14	So the the interest in in that
15	tract in particular, we showed a pew [ph] at the base
16	of the Second Bone Spring 'cause that well is
17	producing from the Second Bone Spring and, in
18	actuality, the pew [ph] is down in the Morrow
19	formation 'cause that well was initially drilled down
20	to the Morrow and the the pew [ph] language in the
21	term assignment that was granted there said below
22	deepest depth drilled, not deepest producing
23	formation. So that that was a mistake that we
24	didn't catch. But we we have now since caught it.
25	And then, as it pertains to a term

ĺ	
1	assignment that is likely you know, this is not the
2	right forum to challenge title, but likely being
3	perpetuated by the Tamano Federal Com number 1
4	situated in in the northwest quarter of section 15.
5	So the that interest, for purposes of today's
6	hearing, we'll say is vested with Permian Resources.
7	THE HEARING EXAMINER: So what is the
8	correction?
9	THE WITNESS: So the correction
10	MR. SAVAGE: The correction
11	THE WITNESS: The correction sorry.
12	Yes. The correction is as it pertains to Delmar
13	Hudson Lewis's living trust interest. I represent in
14	every Exhibit A-3 that that interest is still vested
15	with them, when in actuality that interest should
16	should be represented as being held by Permian
17	Resources.
18	THE HEARING EXAMINER: By Permian. And
19	what is that percentage of interest?
20	THE WITNESS: It it varies from
21	7.4375 percent. It varies from tract to tract. It
22	I do I do now have that rolled up, and when I'll be
23	speaking about Permian's interest, that that
24	interest will be represented.
25	THE HEARING EXAMINER: But in your
	•
	Page 118

1	Exhibit A-3 and by the way, Mr. Shaw, we can barely
2	hear you, so do something to speak louder or get
3	closer to your microphone. So in your Exhibit A-3,
4	you never assigned that interest to V-F?
5	THE WITNESS: No, sir. No.
6	THE HEARING EXAMINER: Okay.
7	THE WITNESS: That that interest was
8	always held by Delmar Hudson Living Trust.
9	THE HEARING EXAMINER: Okay. But now
10	you're attributing that interest to Permian Resources.
11	THE WITNESS: Yes, sir.
12	THE HEARING EXAMINER: Okay. Very
13	good.
14	Are there any other, Mr. Savage?
15	MR. SAVAGE: And we would ask leave to
16	amend that and submit it the hearing packet.
17	BY MR. SAVAGE:
18	Q Mr. Shaw, based on the revision, could you
19	give a general amount of working interest in
20	comparison that V-F Petroleum has now and overall and
21	compared to Permian's overall working interest?
22	A So as it pertains to case 24994, which is
23	the Ranier 16 15 Federal Com 221H and 231H, V-F
24	Petroleum has a 32.895834 percent working interest,
25	while Permian Resources has a 23.9375 percent working

1	interest in that horizontal spacing unit.
2	As it pertains to case 24995 regarding the
3	Rainier 16 15 Fed Com 222H and 232H, V-F Petroleum has
4	a 32.895834 percent working interest; Permian
5	Resources has a 23.9375 percent working interest.
6	As it pertains to case 25116 regarding the
7	Ranier 16 15 Fed Com 223H, V-F Petroleum has a
8	44.458334 percent working interest, while Permian
9	Resources has a 32.453125 percent working interest.
10	As it pertains to case 25117 regarding the
11	Rainier 16 15 Fed Com 223H, again, V-F Petroleum has a
12	44.458334 percent working interest, and we show
13	Permian as having a 32.453125 percent working
14	interest.
15	And then, lastly, as it pertains to looks
16	like it will be case number 25115 in regards to the
17	Rainer 16 15 Fed Com 234H, we're showing that V-F
18	Petroleum has a 12.5 percent working interest, while
19	Permian Resources has a 42.480468 percent working
20	interest.
21	Q And, Mr. Shaw, do you have numbers for
22	overall the working interests including all the units
23	for V-F Petroleum and compared to Permian Resources?
24	A Are you referring to do I have numbers for
25	what Permian and V-F's working interest would be in

1	Permian's proposals?
2	Q Yeah. A comparison and taking all the
3	units into account and taking the whole into
4	account.
5	A Yes, I do. Yes. For V-F's development
6	plan, yes.
7	Q Okay. Can you provide that for the record?
8	A Yes, sir. That that is the I just
9	provided that. That's that's the that I just
10	went through.
11	MR. SAVAGE: So that will conclude my
12	direct, and I render Mr. Shaw, expert witness in
13	landman matters, for cross-examination.
14	THE HEARING EXAMINER: Thank you,
15	Mr. Savage.
16	MR. SAVAGE: Ms. Vance?
17	MS. VANCE: Yes. Thank you.
18	CROSS-EXAMINATION
19	BY MS. VANCE:
20	Q Good morning, Mr. Shaw. Thank you so much
21	for being here today. So I'm going to start out just
22	kind of asking a couple of questions about your
23	background. So are you a full-time employee at V-F?
24	A No, ma'am, I am not. I'm a contract
25	employee, but I exclusively contract with V-F
	Page 121
	Page 121

Petroleum.
Q Okay. And you're a landman. Correct?
A Yes, ma'am. I'm a landman who has a law
degree, but I'm only licensed to practice in the state
of Texas.
Q Okay. And you just said that so you have
a law degree, and you did provide some background in
your testimony. You also have a undergraduate degree
in political science. Is that correct?
A Yes, ma'am.
Q Okay. So your area of expertise, you're a
landman, you deal with ownership. Correct? Land
negotiations?
A Yes, ma'am. Yes, ma'am.
Q Okay. Land deals and well proposals? Is
that correct?
A Yes, ma'am.
Q And you do not have a degree in engineering.
A No, ma'am, I do not.
Q So it's fair to say that an opinion you
might provide on any kind of technical expertise
having to do with well density is not based on an
engineering degree or engineering technical
background. Is that correct?
A I do not have a engineering degree, so any
Page 122

1	comments that I may have made with regards to any type
2	of well spacing or density would just simply be an
3	observation that I made as being a landman and, you
4	know, having been in New Mexico for three and a half
5	years and and looking at well density and space
6	patterns in the Bone Spring formation.
7	Q Okay. So it's based off of observations,
8	any of the opinions you offered, and it's your limited
9	experience working in New Mexico. Three years.
10	Correct?
11	A Yeah. Three and a half years. Yes, ma'am.
12	Q Okay. Now, we're here, we're doing oil and
13	gas. Do you believe that this is a science-based
14	industry and field of work?
15	A Yes. As as it pertains to other
16	other you know, other fields. But as far as you
17	know, as far as what I do, it's pretty much, you know,
18	land related. It's not you know, there's no
19	barrier to entry necessarily to become a landman.
20	Anyone can kind of become a landman and teach
21	themselves how to become a landman, so I wouldn't say
22	the entirety of it. But yes, there there is a lot
23	of technical aspects to oil and gas industry.
24	Q But the industry itself, oil and gas, it is
25	science based?

1	A Yes, ma'am. It is science based.
2	Absolutely.
3	Q Okay. And would you agree that we, as an
4	industry, as a science-based industry, we have evolved
5	from vertical to horizontal drilling?
6	A As a as a general statement, the oil and
7	gas industry as a whole or in in this particular
8	area?
9	Q Just as a whole, that predominantly we have
10	gone from vertical drilling to horizontal drilling?
11	A Yes, yes. In the United States, yes.
12	Q Okay. I think you have all seen, and we've
13	discussed a little bit today, we've gone from 1-mile
14	to 2-mile and now we're seeing some 3-mile
15	development?
16	A Yes, ma'am.
17	Q Okay. And we've kind of changed
18	configurations as we have evolved as a science-based
19	industry. We now have winerack, for example?
20	A Yes, ma'am. Some have been better than
21	others, but yeah yes.
22	Q But you agree that the industry itself has
23	evolved over time?
24	A Yes, ma'am. I mean, yes.
25	Q The industry has followed the science.
	Page 124

A Yes, ma'am.
Q Okay. So then you would probably agree that
as we're following the science, since it's a
science-based industry, that we have done things to
further increase production and avoid underground
waste. Correct?
A Yes.
Q And that furthering the industry through
these different technical and science-based practices
to increase production protects correlative rights.
A That's such a such a broad question. It
can if it's successful, but it can also hurt
correlative rights if if unsuccessful. And so yes,
if if it's a if it becomes proven a pilot
project becomes proven in an area and then is
implemented, then then absolutely that that
would protect correlative rights. But if a pilot
project is unsuccessful but still is implemented in
in an area, then then it would not protect
correlative rights. It result in additional economic
waste, at least.
Q But you agree that, as the industry has
evolved, we produce more today than we have, you know,
20, 30 years ago. Correct?
A Yes, ma'am.

1	Q And that's based off of the evolution of the
2	industry itself?
3	A Yes, ma'am.
4	Q Okay. Thank you. Okay. I am going to
5	share my screen because I want to talk about some of
6	your exhibits. So I have up, just for your knowledge,
7	for the Division's knowledge, and opposing counsel, so
8	this is the hearing packet for case 24994, and it's
9	your statement, and I have highlighted here those
10	are your words. Correct? "All working interest
11	owners were locatable and noticed"?
12	A Yes, ma'am.
13	Q Okay. And then I'm going to skip here and
14	go to page 30. So this is Exhibit A-3, and here you
15	have Permian highlighted. Correct?
16	A Yes, ma'am.
17	Q Okay. And I'm going to go to page 89, and
18	I'm going to scroll in so we can all see. This is the
19	notice list you provided to your counsel. Is that
20	correct?
21	A Can you blow that up a little bit so I can
22	just see it?
23	Q Sure. Absolutely. I'm going to go up
24	because I'm mainly looking at these parties right
25	here.

1	A Okay.
2	Q This is the notice list that was attached to
3	the hearing packet. Now, do you see Permian Resources
4	here?
5	A No, ma'am, I do not.
6	Q Okay. And then I'm going to go to the NOP,
7	the notice of publication.
8	MR. SAVAGE: Mr. Hearing Examiner, can
9	we clarify what unit?
10	THE HEARING EXAMINER: Ms. Vance?
11	MS. VANCE: This is case 24994.
12	THE HEARING EXAMINER: And what is the
13	point you're trying to make?
14	THE WITNESS: 24994. Hold on.
15	THE HEARING EXAMINER: Mr. Shaw, can
16	you hold on just a minute, please?
17	THE WITNESS: Yes yes, sir.
18	MS. VANCE: One, counsel for V-F has
19	made notice an issue, and I do want to point out that
20	we have yet to have received notice ourselves. Also,
21	this drives home the point that I was trying to make
22	regarding V-F as an operator and why they're not
23	suited to be the operator in this case. And, you
24	know, that they are sort of knee-jerk reaction going
25	through the motions of this contested hearing process.

1	THE HEARING EXAMINER: Okay.
2	MR. SAVAGE: Mr. Examiner, if I'm
3	looking at this correctly, I'm looking at our
4	Exhibit A-3. I don't see Permian Resources as an
5	owner. Permian Resources is an owner, yes. Okay.
6	Thank you.
7	MS. VANCE: May I continue?
8	THE HEARING EXAMINER: Yes, please.
9	MS. VANCE: Okay.
10	BY MS. VANCE:
11	Q And, Mr. Shaw, we're looking at the notice
12	of publication, and please take whatever time you
13	need, but can you just confirm, do you see Permian
14	Resources on the notice of publication?
15	A And this is in regards to 24994, you said?
16	Q Yes. This is still the same exact case.
17	Same hearing packet.
18	A Okay. So Permian Resources okay, I see
19	this now. Sorry. I'm getting my bearings. Permian
20	Resources, in this instance, when we proposed these
21	wells, which was September
22	Q Mr. Shaw, can I just stop you right there?
23	A Okay.
24	Q I'm just asking a question of whether or not
25	you see Permian Resources

1	MR. SAVAGE: Objection. Could you let
2	him answer the question?
3	MS. VANCE: I did ask my question,
4	which is whether or not he saw Permian Resources
5	listed in the notice of publication.
6	THE HEARING EXAMINER: Okay. And
7	what's the objection?
8	MR. SAVAGE: To let the witness answer.
9	The witness was in the process of answering the
10	question, and she interrupted him, and I think he
11	should be allowed to finish.
12	THE HEARING EXAMINER: Okay.
13	MS. VANCE: It appeared that Mr. Shaw
14	was pulling up some other stuff and
15	THE HEARING EXAMINER: Okay.
16	MS. VANCE: I just want to make sure
17	that it really is just a yes or no answer.
18	THE HEARING EXAMINER: That's fine.
19	But you asked a question to Mr. Shaw.
20	Mr. Shaw, have you answered this
21	question yet?
22	THE WITNESS: No, I I have not yet.
23	THE HEARING EXAMINER: Okay. Would you
24	please?
25	THE WITNESS: Permian's predecessor in
	Page 129

1	interest is listed in there, yes.
2	BY MS. VANCE:
3	Q But again, I'm asking the question, is
4	Permian Resources Operating listed?
5	A Permian Resources operating is not listed.
6	The predecessor in title is listed. Or predecessors
7	in title are listed.
8	Q Again, can you provide a yes or no of
9	whether or not you see Permian listed?
LO	A Permian is not listed.
L1	Q Okay. And then when were these applications
L2	filed?
L3	A I believe 24994. It looks like on or
L <b>4</b>	about November 19, 2024.
L5	Q Okay. And at this time you were aware that
L6	Permian was the interest holder and not Mewbourne.
L7	Correct?
L8	A Yes, ma'am. That is correct.
L9	Q Okay. Thank you. So now we're going to go
20	through, and I hate to be redundant, but we're going
21	to go through the same in case 24995. So I'm looking
22	at case 24995, and I'm going to go to paragraph 11.
23	MR. SAVAGE: Mr. Hearing Examiner, if
24	this occurs across the board in all the cases, and my
25	witness agrees to that, could we move on?

1	THE HEARING EXAMINER: Ms. Vance, is
2	there a way to ask your question and to incorporate
3	all the cases that you were not noticed?
4	MS. VANCE: So it would just be this
5	one additional case where
6	THE HEARING EXAMINER: Oh, okay.
7	MS. VANCE: it's the same exact
8	thing. And I'm happy if Mr. Shaw wants to agree that
9	Permian was not noticed in this case, that's fine.
LO	BY MS. VANCE:
L1	Q So, Mr. Shaw, was Permian Resources noticed
L2	in case 24995?
L3	A No, ma'am, they were not.
L <b>4</b>	Q And V-F is trying to pool them in this case.
L5	Correct?
L6	A Yes, ma'am.
L7	Q Okay. That's fine. Now, I do have another
L8	notice issue, but it's not related to Permian. I'm
L9	going to go to case 25115, and I want to go to the
20	notice of publication. Mr. Shaw, is the State Land
21	Office listed on the notice of publication?
22	A No, ma'am.
23	Q Okay. And then I'm going to go to page 56,
24	and I will scroll in for you.
25	A Thank you.

1	Q Is the State Land Office listed in the
2	parties that your notice went to?
3	A No, ma'am.
4	Q Okay. And again, go to page 14, scroll out.
5	And again, you're stating in your statement that you
6	provided a notice list to your counsel and that they
7	completed notice. You state that in your testimony.
8	Correct?
9	A Yes, ma'am.
10	Q All right. Now I'm looking at your pooling
11	exhibit, Exhibit A-3. And I'm looking down right here
12	where you have the interest broken out on a tract
13	basis, and for the north half of the northwest quarter
14	of 16, that that's unleased mineral interest of the
15	State Land Office. Correct?
16	A That's correct. Yes, ma'am.
17	Q Okay. And based on this, and I'm going to
18	scroll down to page 26 of 74, you've got this
19	highlighted, and that highlighting means that you're
20	attempting to pool unleased state minerals. Is that
21	correct?
22	A No, ma'am. The the highlighting just
23	simply denotes that they are not committed. We are
24	we are not attempting to pool the State of New Mexico.
25	Q Is that what it says in your statement, that
	Page 132

1	they're uncommitted, or that the highlighting denotes
2	pooling?
3	A It may let me see what the statute says.
4	THE HEARING EXAMINER: Ms. Vance, are
5	you waiting for an answer?
6	MS. VANCE: I am.
7	THE WITNESS: Oh, I guess are you
8	talking about paragraph 9 in the landman statement
9	that reads: "The parties being pooled, the nature of
LO	their interest, and their last known addresses are
L1	listed on Exhibit A-3. Exhibit A-3 includes
L2	information regarding working interest owners
L3	overriding royalty interest owners or royalty interest
L4	owners"?
L 5	BY MS. VANCE:
L6	Q I believe so. I believe you've done a
L7	number of pooling cases. Typically the highlighting
L8	denotes the interests that are being pooled. Correct?
L9	A No. I wouldn't necessarily say that. It's
20	just for me to all I was denoting was the
21	difference between those interest owners that were
22	committed and those were not who were not
23	Q So then how is the Division supposed to know
24	which parties you're pooling?
25	A Because that's who we send the notice of the
	Page 133

1	applications to. I mean, that's what we just went
2	through just a second ago, so the State of State of
3	New Mexico didn't receive an application to pool.
4	MR. SAVAGE: Please
5	THE HEARING EXAMINER: Okay. Mr. Shaw,
6	hold on a second, please. I think there's an
7	objection.
8	Yes, sir?
9	MR. SAVAGE: No. I would just like to
10	clarify. I mean, I think we can point to in the
11	exhibit where the answer to this question is.
12	THE HEARING EXAMINER: Is this
13	Mr. Shaw's exhibit?
14	MR. SAVAGE: Mr. Shaw's exhibit.
15	THE HEARING EXAMINER: Doesn't he know
16	where it is? The answer?
17	MR. SAVAGE: I'm not sure if he
18	realizes at this point.
19	THE HEARING EXAMINER: Did Mr. Shaw
20	draft the exhibit?
21	MR. SAVAGE: He did.
22	THE WITNESS: Yes.
23	THE HEARING EXAMINER: Okay. All
24	right.
25	MS. VANCE: Can I ask a question?
	D
	Page 134

1	THE HEARING EXAMINER: Well, you asked
2	a question, he was answering a question. What was the
3	question that you asked, Ms. Vance?
4	MS. VANCE: How is the Division
5	supposed to know who you're pooling?
6	THE HEARING EXAMINER: Right. And did
7	you get an answer?
8	MS. VANCE: I don't think I did.
9	THE WITNESS: Yeah. I said 'cause
10	that's who we sent the applications for pooling to,
11	and that notice of applications were were to
12	parties that we're pooling.
13	BY MS. VANCE:
14	Q So then I guess I'm confused because also in
15	here I believe you have some of the interest owners
16	who are not highlighted, and you also have the Bureau
17	of Land Management, and I don't believe you can pool
18	the federal government.
19	A No, ma'am. I agree with that. Sorry.
20	Here. So at the back I'm just seeing this now. At
21	the back of Exhibit A-3 it says "list of all
22	uncommitted working interest owners to be pooled," and
23	then it says "list of all uncommitted overriding
24	royalty interest owners to be pooled." So on the back
25	of Exhibit A-3, the very very last page, it states

1	who's being pooled and who's not being pooled. Sorry.
2	It took me a second to recall that.
3	Q So to me, I'm looking at what you have, and
4	it just says uncommitted working interest owners. So
5	I'm confused. What is it? Who is being pooled?
6	A to be pooled.
7	THE HEARING EXAMINER: Mr. Shaw, we
8	can't pick up your voice. First of all, the
9	microphone is not so good. Second of all, please
10	don't talk over the attorney. Wait till she's done
11	with her question.
12	Ms. Vance
13	THE WITNESS: I apologize.
14	THE HEARING EXAMINER: No, it's fine,
15	Mr. Shaw.
16	Ms. Vance, would you ask your question
17	again?
18	BY MS. VANCE:
19	Q So I'm a little confused because there
20	let me ask this. Is there a key anywhere in any of
21	your exhibits that provides information or direction
22	to the Division as to what that highlight means?
23	A It it simply is denoting the difference
24	between parties who are uncommitted and those who are
25	being those are who are you know, the
	Page 136

1	difference between those who are uncommitted and those
2	who are committed. So and then at the very end of
3	Exhibit A-3, we list all of the uncommitted working
4	interest owners to be pooled, and then we also sum up
5	a list of all uncommitted overriding royalty owners to
6	be pooled.
7	THE HEARING EXAMINER: Okay. So can
8	you show us that? Would you scroll to that
9	THE WITNESS: Yes. It's it's right
10	there on looks like page 27 there. Right where
11	the the scroll is. So that list
12	THE HEARING EXAMINER: Can you make it
13	a little bigger so we can read it?
14	MS. VANCE: I can. Because I also want
15	to point out that the unleased is also under pooled.
16	BY MS. VANCE:
17	Q So I want to go back to my question of is
18	there a key anywhere that tells the Division what that
19	highlight means on any of your exhibits? Is it
20	explained anywhere in your testimony or in
21	Exhibit A-3?
22	A No, ma'am, it is not. It is not clearly
23	stated, no.
24	Q Okay. And then where you were pointing to,
25	the list of uncommitted working interest owners to be

1	pooled, it says unleased there. Correct?
2	A Yes, ma'am.
3	Q Okay. All right. Let's move on from that.
4	I'm going to go to page 29. Okay. This is your
5	chronology of contacts, and it's one page, just
6	page 29. Can you tell me if the State Land Office is
7	listed here?
8	A No, ma'am. They are not.
9	Q Okay. Has V-F discussed its proposals for
10	this unleased acreage unleased state minerals?
11	Have you discussed that with the State Land Office and
12	that V-F is attempting to pool their unleased minerals
13	based on your exhibits?
14	A No, ma'am. We are under the impression at
15	the moment that the state is not currently leasing or
16	accepting nominations in this area, so we have not
17	made any overtures to the state in order to lease this
18	interest. But once once we get the understanding
19	that there there will be leases issued in this
20	area, we will be nominating this tract.
21	Q So have you had any communication with the
22	State Land Office regarding those unleased minerals?
23	A No, ma'am.
24	Q Okay. Now, this section 16, the State Land
25	Office, they own the minerals. Correct? They're the

1	mineral
2	A Yes ma'am.
3	Q Okay. And are they the surface owner? Are
4	they owner of the surface estate as well?
5	A Yes, ma'am.
6	Q Okay. And where are the surface hole
7	location for V-F's proposals? Are they all on
8	section 16?
9	A Yes, ma'am.
10	Q Okay. Has V-F filed for a business lease
11	with the State Land Office?
12	A No, ma'am. Not as of yet.
13	Q And has V-F prepared or submitted com
14	agreements regarding its proposals to the State Land
15	Office?
16	A No, ma'am.
17	Q All right. Let's switch gears and let's
18	talk about section 15 for a second. So section 15,
19	those are federal minerals. Correct?
20	A Yes, ma'am.
21	Q Okay. Has V-F filed federal APDs or done
22	any federal permitting?
23	A No, ma'am. We don't own an interest in
24	every tract.
25	Q Okay. You answered my next question. Are
	Page 139

1	you aware of the timeline for approvals for federal
2	APDs? The approximate
3	A Yes, ma'am.
4	Q Okay. And would you say it it's about two
5	years? Is that sort of correct? I think the industry
6	understands it's about two and a half years to get APD
7	approval. Would you say that's accurate?
8	A No, ma'am.
9	Q What would you say is the timeline for
LO	federal approval?
L1	A We are anecdotally aware of companies who
L2	have received them within eight to ten months,
L3	depending on, obviously, your NRS agent and and
L4	other circumstances. You know, quality of the packet
L5	submitted. Things of that nature.
L6	Q And how old is that anecdotal information?
L7	A We're involved in a in a project right
L8	now where I believe that it was under a year that the
L9	operator obtained federal APDs
20	Q But as you alluded to, that's anecdotal.
21	That's actually not the norm as of right now. It's
22	taking the federal government a lot longer to turn
23	around permits. More than a year.
24	A I I mean we've submitted eight federal
25	permits, and the the federal government seems to be
	Page 140

1	quite responsive at the moment in regards to those
2	federal permits. And and we have asked for status
3	updates through our agent, and it seems like the
4	process is moving relatively quickly in comparison to,
5	you know, other permits that this individual has
6	processed in the past. So I can't I can't say that
7	category, no.
8	Q But again, it's, you know, going back to
9	that's anecdotal. Correct?
10	A Yes, ma'am.
11	Q That was your terminology? Okay. And you
12	sort of alluded to the fact that it does take some
13	time. Right?
14	MR. SAVAGE: Objection.
15	A Yes. Absolutely.
16	THE HEARING EXAMINER: What's the
17	objection?
18	Hold on, Mr. Shaw.
19	MR. SAVAGE: The objection is that this
20	has been asked a number of times and answered a number
21	of times.
22	THE HEARING EXAMINER: I agree,
23	Ms. Vance, so I'm going to sustain the objection.
24	Mr. Shaw, if you hear the word
25	objection, please stop speaking. You're an attorney,
	Page 141
	1490 141

1	you know that. Thank you.
2	Please proceed, Ms. Vance.
3	BY MS. VANCE:
4	Q Okay. So your State Land Office lease that
5	you have for section 14, that expires in about a year.
6	Is that right?
7	A Are you you said section 14. Do you mean
8	section 16?
9	Q I'm sorry, yes. Section 16. I apologize.
10	A Yes. It yes. It expires, I believe,
11	January 31, 2026.
12	Q Yes. And you need to drill in order to
13	maintain that lease. Correct?
14	A Yes, ma'am.
15	Q Okay. So you guys have not filed for
16	federal permitting as of yet?
17	MR. SAVAGE: Objection.
18	THE HEARING EXAMINER: What's the
19	objection?
20	MS. VANCE: I haven't even finished the
21	question.
22	MR. SAVAGE: Excuse me, Mr. Hearing
23	Examiner. It thought that was the question that she
24	was asking again and
25	THE HEARING EXAMINER: Okay.

1	MR. SAVAGE: I'll withdraw.
2	THE HEARING EXAMINER: Please proceed,
3	Ms. Vance.
4	MS. VANCE: Sorry. I lost my place
5	there for a second. Well, that's fine. He's already
6	answered it. I'll move on.
7	BY MS. VANCE:
8	Q So can you maybe just explain how you're
9	going to meet those timelines for your lease
L O	expirations since you have not started any
L1	conversations with the State Land Office regarding the
L2	unleased minerals or filed for business leases with
L3	the State Land Office or filed for federal APDs?
L4	A Well, the way that we've structured this is
L5	that we've filed for several, obviously, 320-acre
L6	horizontal spacing units. The one obviously being
L 7	in the south half/south half of sections 16 and 15
L8	comprising for Rainier 16 15 Fed Com 221 and 231H
L9	wells. And so the unleased mineral interest in the
20	north half/northwest quarter only affects case 25115,
21	being for the Rainier 16 15 Fed Com 234H. The rest or
22	remainder we have there are leases on the entirety
23	of those lands and we're not in the process of
24	attempting to get get the coms situated so that
25	then we can file for the federal APDs.

1	We've done a lot of the surveying work for
2	staking out pads, well locations, CTBs, and really,
3	with us being on state lands, that helps greatly
4	expedite this process being that you don't need to do
5	a federal on-site to commence that work. So a lot of
6	the work that is needed in order to file a federal APD
7	we already have in hand. So upon the you know, the
8	conclusion of this case, we would be able to file it
9	and and get to get the APDs.
LO	Q And this case is going to conclude in
L1	February, and it's most likely you know, obviously,
L2	you've appeared before the Division, it takes time for
L3	orders to be turned around, and you're saying that you
L4	would start filing for federal APDs after the case is
L5	completed in February and after an order is issued at
L6	some unknown date in the future?
L7	A Yes, ma'am. Yes. We would have we would
L8	have all the work basically ready to go so that if
L9	if V-F Petroleum were to prevail, that we would then
20	be able to immediately file for federal APDs.
21	Q Several months from now.
22	A However long it takes the record the
23	the order. Yes, ma'am.
24	Q Mr. Shaw, have you done any on-sites with
25	the BLM?

1	A Yes, ma'am.
2	Q And when did you do those?
3	A Are you are you referring to in this case
4	or just generally?
5	Q In this case. In these cases.
6	A Since we're on state surface, an on-site
7	that the BLM is not required. And we spoke to the BLM
8	about that, and and got their opinion and and
9	they said the same.
10	Q Okay. Let's move on here. Now, I looked at
11	your negotiations, your chronology of contacts. Now,
12	based on those chronology of contacts, you haven't
13	communicated with at least four of those working
14	interest owners in about a year, and specifically I'm
15	looking at cases 24994 and 24995. Is that correct?
16	A Pull that up. 24994. Can you repeat the
17	question? I'm I'm here now.
18	Q Sure. And I'll just state this so it's
19	clear for the Division. So it's basically pages 32
20	and 33, and the same right about for between case
21	numbers 24994 and 24995. So just to be clear, I'm
22	looking at these chronology of contacts, and it looks
23	like it's been about a year since V-F has had any
24	engagement with some of these interest owners?
25	A Yes, ma'am. So going through all this, you
	Page 145

1	know, we had extensive conversations early on
2	regarding you know, when we made these proposals,
3	we also proposed a joint operating agreement. It's
4	V-F's preference to attempt to obtain joinder
5	vis-a-vis the operating agreement. We're reasonably
6	flexible on those terms. And if we can't come to an
7	agreement or if the party doesn't want to participate
8	in our wells, then then what we do is we extend an
9	offer. And so I've had several conversations with
10	these parties early on when these wells were initially
11	proposed, and essentially a lot you know, a lot of
12	these parties said, you know, we we don't want to
13	participate under the joint operating agreement and
14	we're not interested in accepting an offer, and once
15	you get this interest pooled, we'll make a decision on
16	whether or not to participate under the order.
17	That's that's a very general statement. That's
18	that's what happened with a lot of these parties.
19	Q But you did send out supplemental proposals.
20	Correct?
21	A Yes, ma'am.
22	Q And I'm just going to go to one of those, so
23	I'm scrolling down here. And same for both of these
24	two cases. So this Exhibit A-5, this is your initial
25	proposal marked in September 2023, and the sticker

1 price here is 13 million. Is that correct? For both 2. of these, right about there, 13 million. 3 Α Yes, ma'am. For each of the wells. And then you did 4 0 5 send a supplement, which is also part of that same 6 exhibit, just recently, January 21, 2025. So about a week ago you sent out supplemental proposals. 8 Α Yes, ma'am. 9 0 Okay. And it's quite a drop in price. We went from 13 million to 8 million for the well costs. 10 11 Yes, ma'am. So just as a general rule, when 12 V-F Petroleum initially proposes wells and those 13 wells, such as this situation, are on federal lands 14 and we know that there's going to be a delay between 15 when we make the initial proposal and when we actually 16 go about drilling the wells, what we attempt to do is 17 provide the worst -- what we can envision as worst case scenario estimate on what our drilling and 18 19 completion costs would be. And as it gets closer in 20 time, what we like to do is then submit a supplemental, because it's always easier, you know, if 21 22 you get someone joined up and costs go up, opposed to go down, that's always -- whether it's emotional or --23 24 or causes financial aches, it's a -- it's a lot easier to explain it if -- if the price goes down. So as --25

1	as we get nearer in term, which we are obviously
2	getting nearer in term, as you've stated, we do have
3	expirations, and so this is a top priority for us, we
4	went back and sharpened our AFE and now we have a good
5	understanding of what it's going to cost here in order
6	to drill these wells in the next two, three, four
7	months.
8	Q Okay. So you said that you're getting
9	sharper with the prices and that this is closer to
10	what actually would be the cost for these wells. And
11	you said that this is worst case scenario, that
12	13 million. Do you explain that at all in this letter
13	to the in your supplemental proposal, do you
14	explain any of what you just stated to those interest
15	owners so they know what is going on and why there's
16	this huge jump in price between 13 million and

A No, ma'am. I mean, as a matter of industry practice, you know, we -- we see these all the time where, when -- when a well's initially proposed, the operator will send that out -- send that out to parties and -- you know, and then as it gets closer, you -- you receive a supplemental, and a lot of these parties -- actually all of these parties I believe are sophisticated owners, so I don't -- I don't think I

17

18

19

20

21

22

23

24

25

8 million?

1 had to necessarily spell that out. 2 And they're sophisticated enough to understand a \$5 million reduction in price without 3 further explanation in the letter. 4 5 Yes, ma'am. Yes. It's -- it's industry 6 practice. Absolutely. As -- as you get closer, you sharpen your pencils, and -- and you get a more 8 accurate AFE as you get closer to the drill. 9 0 So what you're saying is it's normal 10 industry practice to have these deep discounted cuts 11 in the initial proposals vice what you actually plan 12 to do. 13 Yes, ma'am. And you'll see in our rebuttal Α exhibits, I -- I give an example of that where Permian 14 15 proposed a well to us -- pull this up. Permian 16 proposed a Lajitas 54 State Com wells, the 121, 122, 17 123, 124, 131, 132, 133, and 134. The initial 18 proposals on those wells were dated January 16, '24, and those wells came in on the Second Bone wells for 19 20 \$12,441,256. And then on the Third Bone wells, same 21 date, you know, obviously January 16, 2024, was 22 \$12,985,967. And then on 9/11 we received updated 23 proposals for those wells, and those proposals showed 24 that the Second Bone wells were \$9,405,555.04 and then the Third Bones were \$9,779,073 -- or 73 cents. 25 Page 149

1	again, probably up close to a \$3 million cut there
2	being approximately 75, 74 percent. So the initial
3	the initial or the these 9/11/2024 well proposals
4	are are about three-quarters of what the original
5	proposals were.
6	So yeah, it's industry I would say it's a
7	pretty industry customary. And like I said, the
8	expectations are, you know, you provide your worst
9	case scenario of what you think it's going to cost and
10	you come back later and and get a more accurate
11	cost as you get closer to the drill.
12	Q And did you have a conversation with Permian
13	regarding the updated proposals that you just
14	discussed?
15	A Have I had a conversation with Permian since
16	I
17	Q Regarding the updated proposals that you
18	just discussed. You got one set of proposals, then a
19	supplement. Did you have a conversation with Permian
20	about those updated proposals?
21	A No, ma'am. I have not I have not spoken
22	to Permian since sending those proposals. The the
23	January '24 proposals.
24	Q No. What I'm asking is, you just talked
25	about proposals. I think it was the Lajitas. Is that

1	it?
2	A Yes. Yes, ma'am.
3	Q You just talked about, you know, gave an
4	example and I'm not sure, is that in your rebuttal
5	exhibits?
6	A Yes, ma'am. That would be rebuttal
7	Exhibit I think it's rebuttal Exhibit 5. Yes.
8	Rebuttal Exhibit 5. I have a a summation of those
9	proposals, and then I have the actual proposals
10	themselves attached
11	Q Okay. And since you brought it up, what I
12	was asking is have you had a discussion with Permian
13	about those supplemental proposals?
14	A No, no. I have not had a conversation with
15	Permian explicitly about those supplemental proposals.
16	Q All right. But you would agree that
17	5 million is different than \$3 million difference?
18	A I mean there's a million behind the number.
19	I mean, it's they're both big numbers.
20	Q But one is less than the other. Correct?
21	A Yes, ma'am.
22	Q Thank you. All right. So V-F has ten wells
23	that it operates in Eddy County. Is that right?
24	A No, ma'am.
25	Q How many wells does it operate in Eddy
	Page 151

1	County? Let me rephrase
2	A In Eddy in Eddy County sorry. Go
3	ahead.
4	Q Because I think I know what the confusion
5	might be. V-F operates ten horizontal wells in Eddy
6	County.
7	A Yes, ma'am.
8	Q Okay. Thank you. And eight of those are
9	1-mile horizontal wells.
10	A No, ma'am.
11	Q So how many horizontal wells does V-F
12	operate in Eddy County that are 1-mile?
13	A One-mile? Six.
14	Q Okay. And then how many 2-mile wells does
15	V-F operate?
16	A In Eddy County? Two.
17	Q Okay. So the total number of wells that V-F
18	operates in Eddy county is eight. Is that
19	A No, ma'am.
20	Q Eight horizontal wells.
21	A No, ma'am.
22	Q Okay. So let's just
23	A You want me to yeah. I'll help you. So
24	we we have six 1-mile wells, then we have two
25	mile-and-a-half wells, 7,500 footers, and then two
	Page 152

1	10,000 horizontal 10,000-foot horizontal wells, so
2	for ten total wells in Eddy County.
3	Q Okay. So I just want to be clear, so I'm
4	not trying to repeat myself here, but I just want to
5	know. So it's six 1-mile wells, two
6	one-and-a-half-mile wells, and then two two-mile wells
7	for a total of ten horizontal wells in Eddy County.
8	A Yes, ma'am.
9	Q Okay. Based off of those numbers, it's fair
10	to say that V-F has more experience operating 1-mile
11	wells versus 2-mile wells. Correct? You have
12	more
13	A In Eddy I mean, in Eddy County, yes.
14	Q In Eddy County. In Eddy County.
15	A Well, the total amount of wells that are
16	horizontal, no. But in Eddy County, yes.
17	Q Okay.
18	A The most number of wells that we have are
19	7500-footers, and that is what we operate the most.
20	We have ten of those in total.
21	Q And you're saying that throughout New
22	Mexico?
23	A Yes, ma'am.
24	Q Okay. That's fine. Now, you agree that
25	regarding the contested acreage, which is in
	Page 153

1	section 15, Permian has more working interest control
2	than V-F does. Correct? Over the spread of
3	section 16, Permian has a greater working interest
4	control.
5	A Over 16, no.
6	Q Fifteen. I said 15. I'm sorry if I
7	misspoke. Fifteen.
8	A In 15, yes, Permian has has the largest
9	working interest in in the two yes.
10	Q And it's over 50 percent. Correct?
11	A In some tracts, yes. In some tracts, no.
12	Q So just over all of section 15, they have
13	A If you add it up over the entirety of
14	section 15?
15	Q Yes.
16	A Is that what you're asking?
17	Q It's more than 50 percent. Correct?
18	A Let me let me look here. Yeah. It
19	appears that it may be slightly over 50 percent, yes.
20	Q So just to be helpful, we have provided some
21	rebuttal exhibits, and this outlines the difference in
22	percentage ownership per tract, but you can also see
23	that
24	MR. SAVAGE: Objection. Those rebuttal
25	exhibits have not been admitted yet, and they have not

1	been reviewed, and she is bringing them up. I think
2	that is not appropriate. They should not
3	THE HEARING EXAMINER: I'm confused,
4	Mr. Savage. I thought that we did admit the rebuttal
5	exhibits.
6	MR. SAVAGE: I'm sorry. Did we? I
7	apologize. I was thinking of the previous hearing
8	THE HEARING EXAMINER: All right. So
9	do you want to withdraw the objection?
10	MR. SAVAGE: Withdraw the objection and
11	just clarify. All the exhibits have been admitted and
12	they're all
13	THE HEARING EXAMINER: From both
14	parties.
15	MR. SAVAGE: fair for questioning.
16	Thank you.
17	THE HEARING EXAMINER: For both
18	parties, they are.
19	And you know, it's now noon. I think
20	we should take a break. That way everyone can kind of
21	gather their thoughts and maybe
22	MS. VANCE: But that's fine. I was
23	going to say I'm close to finishing with Mr
24	THE HEARING EXAMINER: How close?
25	MS. VANCE: Okay. We'll do a break.
	Page 155

1	Corre
	Sorry.
2	THE HEARING EXAMINER: You sure?
3	MS. VANCE: Yeah. It's fine.
4	THE HEARING EXAMINER: Because if you
5	only had a few more questions, I was going to say
6	that's fine. But it's okay with you?
7	MS. VANCE: Yeah. That's fine.
8	THE HEARING EXAMINER: Very good.
9	So, Mr. Shaw, we're going to take a
10	break. We're going to take a lunch break. Okay? So
11	Mr. Shaw and Mr I forgot your name. Burke, is it?
12	MR. BURKE: Yes.
13	THE HEARING EXAMINER: Very good.
14	We're going to take a break now. So thank you for
15	being patient and sitting there, but we will get to
16	you after lunch.
17	It's noon now. Why don't we come back
18	at one o'clock? Does that work for everyone? Okay.
19	Mr. Savage, is that okay?
20	MR. SAVAGE: Yes. Thank you. And I
21	think I was getting a little lightheaded there.
22	THE HEARING EXAMINER: Yes. I thought
23	so.
24	MR. SAVAGE: I appreciate the
25	THE HEARING EXAMINER: It's a good time
-	
	Page 156

1	for a break.
2	MR. SAVAGE: I appreciate the break.
3	THE HEARING EXAMINER: Okay. We're off
4	the record. Thank you.
5	(Off the record.)
6	THE HEARING EXAMINER: All right. It
7	is 1:04 p.m., the 28th of January.
8	Mr. McClure, are you ready to proceed?
9	MR. MCCLURE: Mr. Hearing Examiner, I
10	am. Thank you.
11	THE HEARING EXAMINER: Ms. Vance?
12	MS. VANCE: Can I have just one moment?
13	Sorry. I'm trying to get my stuff set up here.
14	THE HEARING EXAMINER: Are you going to
15	be sharing your screen?
16	MS. VANCE: Yes.
17	THE HEARING EXAMINER: You are.
18	MS. VANCE: That's why.
19	THE HEARING EXAMINER: And do we have
20	Mr. Shaw? You ready? All right, I remind you you're
21	still under oath.
22	BY MS. VANCE:
23	Q Mr. Shaw, sorry about that. So I just
24	wanted to come back to a line of questioning that we
25	went through before lunch and just follow up on a

couple of things, you know, specifically related to
V-F's timelines and their ability to actually go
through with this development. Now, with section 16,
where there is unleased minerals, so based on your
testimony, what you were saying is you would be able
to move forward with the cases that V-F has applied
for with the exception of that one case because of the
unleased minerals. Correct?

2.1

2.4

A And to a degree we'd be able to move forward with that one case, and that case would be case 25115, which is the Rainier 16 15 Fed Com 234H, which is that north half/north half of sections 16 and 15. And what we would -- what we would do in the event that we would prevail in this situation is we would have a com established, then once we are able to nominate the tract in the north half/northwest quarter, we would then have to open up the case again in order to -- well, one, if -- if we acquire it, obviously we would just be able to go ahead and start development on that horizontal spacing unit.

If another company developed it, we are very amenable. We're -- we're not difficult to work with when it comes time to signing JOAs. We just want partners committed and if -- you know, barring the inability to be able to negotiate with the party, then

1 obviously we would have open up that case. 2 But as it pertains to leases VC 838 and VC 837, and then also our term assignments and 3 Permian's term assignments, the way that we've gone 4 about establishing our coms, you know, basically set up on 320-acre spacing, so you're slicing four -- four 6 ways -- you know, four ways across, we would be able 8 to still move forward with development on those 9 tracts, which would then perpetuate those -- those 10 leases and those term assignments without even having 11 to -- to deal with the north half/north half. 12 And I'm just, you know, listening to your 13 answer. You can develop this other acreage, but when it comes to the north half/north half, you are asking 14 15 the Division for an order to pool where you cannot 16 actually develop. Correct? 17 At this -- at this time, yes ma'am. then we would -- we would go back in and open it back 18 up and -- and -- if necessary, if we weren't able to 19 20 obtain voluntary joinder or we didn't require the 2.1 tract ourself. 22 So it's going to require additional 0 administrative process for that case. 23 2.4 Α Not necessarily. If we acquire the -- the lease, then we wouldn't need to do anything. We --25

1	we'd obviously have it under the joint operating
2	agreement. If a third party acquired the lease and
3	voluntarily agreed to join in a in a joint
4	operating agreement, that wouldn't require additional
5	administrative
6	Q But there's potential for that to not
7	happen. Correct?
8	A Yes, ma'am. Absolutely. Yes, ma'am.
9	Q Okay. Now, I do want to talk about the
10	interests. I know before you got started with your
11	testimony, you went through and I didn't catch all
12	of the numbers. It sounds like you might be providing
13	some correction to your Exhibit A-3 that will show a
14	more accurate representation of the ownership
15	breakdown. Is that correct?
16	A Yes, ma'am. It it affects just one
17	interest owner.
18	Q Okay. Now, this has already been admitted
19	into the record, and I have this up. Let me see. I
20	don't think I'm sharing my screen yet. I apologize.
21	I have to
22	MS. VANCE: Mr. Hearing Examiner, I'm
23	not on the Webex, so if you'll give me just one
24	moment.
25	There we go. Okay. Sorry.

1	BY MS. VANCE:
2	Q Now, first I just want to be clear that the
3	exhibits you provided in A-3, they go through a
4	breakdown of the interest on a spacing unit basis. Is
5	that correct? In your testimony?
6	A Could you repeat the question? Sorry.
7	Q Sure. Not a problem. So in your testimony,
8	Exhibit A-3, that breaks down the interests on a
9	spacing unit basis. Correct?
LO	A Yes, ma'am.
L1	Q Okay. And so what I have up here is our
L2	rebuttal Exhibit 1 that provides an outline of the
L3	interest between Permian and V-F as it applies to each
L <b>4</b>	of the three sections involved, section 14, 15, and
L 5	16. And do you see here, section 15 where I'm
L6	highlighting with my cursor?
L7	A Yes, ma'am.
L8	Q And you agree, obviously, this is where the
L9	contested acreage is?
20	A Yes, ma'am.
21	Q Okay. Where the overlap is? Would you
22	agree that Permian owns approximately 60 percent of
23	the working interest control in section 15?
24	A You know, obviously, I I don't look at it
25	in that way, but, I mean, just off the top of my head,
	Page 161

1	looking at this, I would say they would be pretty
2	close if not 60 percent. I mean it's well, I I
3	look at it from a, you know, horizontal space unit
4	standpoint. So
5	Q But you agree
6	A Some tracts they have yeah. They have
7	some tracts Permian has the predominant interest and
8	in other tracts they they're a minority interest,
9	but over two-thirds, close to three-quarters, they do
LO	have the overwhelming amount of working interest in
L1	section 15. I would agree with that.
L2	Q Okay. So you agree then, 60 percent,
L3	they're the majority working interest owner.
L <b>4</b>	A I can't say percentile, but I do I do see
L5	a lot of tracts where they own 85, 78, 79, and then
L6	there's a few tracts in there where they own
L7	10 percent, 10.6, 10.7. So if you balance that out,
L8	they they would definitely have over 50 percent. I
L9	don't know about 60 percent, but, yes, I would say
20	closer to two-thirds, three-fourths they have the
21	majority interest.
22	Q Okay. And then you agree that V-F owns
23	about 9 percent of the interest in this overlapping
24	section 15. Correct?
25	A No, ma'am. There's on our rebuttal

1	exhibit let me pull this up. And I let Permian
2	know this. I think it's rebuttal Exhibit V-F
3	rebuttal Exhibit number 3. And I also sent an email
4	to Permian. We we have a a affidavit of fact,
5	we acquired the interest of Warren Shelton in
6	certain tracts, so we have in some cases more than
7	what's being represented on that rebuttal Exhibit
8	number 1. We have not been able to locate Mr. Paul
9	Moore to get him to resend the originals so we can go
10	ahead and file it. He did send it. We did obviously
11	pay the consideration on Exhibit A to that affidavit
12	in fact. You'll see the offer letter that we have
13	signed by him. It's obviously redacted for the
14	consideration, but all remainder of the terms and
15	conditions kind of are in there. And then filed as
16	Exhibit B to that affidavit in fact is the actual
17	memorandum of term assignment. So V-F's interest is
18	slightly more in some of these tracts than the
19	9 percent showing here but
20	Q Okay. And you said "slightly increased."
21	How much does that increase the overall interest of
22	V-F in section 15?
23	A I'll pull that up. So for instance in the
24	south half/southeast quarter, what are you showing
25	there? 14.2 percent? I'm showing 21.6667.

1	Q Can you repeat that one more time?
2	A Yes. Yes, ma'am. Basically the the
3	southeast quarter, you're showing us as having
4	14.2 percent. Our interest is actually 21.667. Let
5	me see if that carries through to the yes. And
6	then in the southeast quarter and northeast quarter,
7	you're showing us as 14.2 percent, and there we have
8	21.6667. And then and then it looks like the rest
9	of that looks pretty accurate to me. And then the
LO	rest of that looks pretty accurate.
L1	Q Okay.
L2	A So that's basically the southeast quarter
L3	and then the southeast quarter/northeast quarter we
L4	would have 21.6667 in those tracts.
L5	Q Sorry. It's a little hard to hear you. Can
L6	you say the
L7	A Sorry. Yeah. I'll I'll speak up. It
L8	it basically looks like in the southeast quarter and
L9	then the southeast quarter of the northeast quarter we
20	would have a 21.6667 interest in those tracts. And it
21	looks like the rest and remainder that is highlighted
22	in orange look accurate.
23	Q Okay. And so based on those changes, would
24	you say that increases V-F's overall interest in
25	section 15 by, what, like 2 percent maybe? Or about

1	how much would you say?
2	A Off the top of my head, I wouldn't I
3	wouldn't know it. I would have to sit down and see
4	what
5	Q But
6	A 7 percent increase in a quarter of a
7	quarter of a or just over a quarter of a section
8	would would equate to when you use 640 acres as
9	your denominator. Off the top of my head, I wouldn't
10	be able to say, but it's not it's not a massive
11	increase, but it it is an increase. And all these
12	little crumbs can make a cake, as you can see when
13	when we do the in the horizontal spacing units.
14	Even though Permian has the overwhelming,
15	you know, majority in that in those orange blocks,
16	you know, outside of the southeast quarter of
17	section 15 and the southeast quarter of the northeast
18	quarter, yet they are still not the majority you
19	know, they still don't have the the great working
20	interest in each one of our proposed horizontal
21	spacing units.
22	Q Okay. And I think in there you answered
23	this, but I just want to be sure because I want to
24	THE HEARING EXAMINER: Ms. Vance, we
25	we're spending a lot of time on something that's
	Page 165

1	either mathematically true or false, and I'd like to
2	move this along a little bit faster than this. Okay?
3	So let's get some sort of a summation and move on from
4	these interest ownerships.
5	MS. VANCE: Absolutely.
6	MR. SAVAGE: Mr. Hearing Examiner, can
7	we ask Mr. Shaw to his microphone
8	THE HEARING EXAMINER: Speak louder?
9	Yeah, of course.
10	MR. SAVAGE: Speak louder.
11	THE HEARING EXAMINER: He's your
12	witness.
13	MR. SAVAGE: Mr. Shaw, I don't know if
14	you can adjust the volume or, you know, position
15	yourself, but it trails off and it's hard to hear at
16	times. So if you could speak louder, that'd be great.
17	Thank you.
18	THE WITNESS: What did you all hear? I
19	don't mind going back through it.
20	THE HEARING EXAMINER: No, Mr. Shaw.
21	We don't need you to go back through. We just need
22	you to speak up and answer the question. Ms. Vance is
23	going to continue. We're going to move this along.
24	Okay?
25	THE WITNESS: Yes, sir.

1	BY MS. VANCE:
2	Q I think that I just have one last question
3	here. And based on everything that you have just
4	stated, that still means that V-F is the minority
5	working interest owner and that Permian is the
6	majority working interest owner in section 15.
7	Correct? Or has the
8	A If you were just if you're if
9	you're you're saying if you just take section 15
10	alone, as a standalone section, you're asking if
11	Permian has the majority of the working interest in
12	section 15? Is that kind of a a good restatement
13	of your question?
14	Q Yes. Does Permian
15	A Yes.
16	Q even with your updates yes. Okay.
17	Thank you.
18	MS. VANCE: That's all I have.
19	THE HEARING EXAMINER: Okay.
20	Mr. McClure, did you have any questions
21	for this witness?
22	MR. MCCLURE: Yes, I do, Mr. Hearing
23	Examiner.
24	THE HEARING EXAMINER: Please. And
25	then I'm going to come to you Ms. Luck, if you have
	Page 167

any questions. You don't? Okay.
CROSS-EXAMINATION
BY MR. MCCLURE:
Q Mr. Shaw, earlier under question by
Mr. Savage, I believe it was, you referenced that V-F
had acquired some additional interest and that your
Exhibit A-3 needs to be corrected. Is that correct?
A No, sir. What had happened what had
happened is that I had incorrectly located a pew [ph],
and V-F's interest was not affected in that situation.
Q Okay. So then that's a separate issue from
what you were just talking about with Ms. Vance
regarding the southeast quarter of section 15, then.
Is that correct?
A Yes, sir.
Q So does your Exhibit A-3s, do they represent
the increased V-F interest from that acquisition,
then?
A Yes, sir.
Q Okay. With that acquisition, was Permian's
interest effected at all?
A No, sir.
Q Earlier when Ms. Vance was questioning you,
did I hear correctly that your summary of contacts may
be missing some communications?

A Yes, sir.
Q Okay.
A Wait. Sorry. Can you can you restate
that? Sorry. I may have misunderstood what you said.
My summary of contacts?
Q Yeah. Your summary
A Exhibit A-4s?
Q Yes. Your Exhibit A-4, is it correct that
there's some additional communication that needs to be
included there?
A No, sir. No. That the summation of that
was, I believe, Permian was asking me, you know, that
there there's been some passage of time between my
contacts with some of these working interest owners
and, you know, it's been a it had been a, a period
of time since since I've spoken to them. But my
answer to that was simply, you know, we proposed
you know, when we proposed the wells, I also proposed
a JOA as a kind of a modus operandi. It's just a way
of getting things moving quicker, and and as I
said, V-F V-F's main goal is to obtain voluntary
joiner, and and in the event that the parties don't
wish to participate for whatever reason, then my
immediate next step is to extend a formal offer.
And what I attempt to do after that is I'll

1	follow up at least one or two additional times, and if
2	a party tells me, which most of these parties did tell
3	me, no, we don't want to sign your joint operating
4	agreement, and, no, we don't want to accept an offer,
5	go ahead and pool us, and then, upon receiving the
6	order, we'll make a decision on what to do at that
7	juncture. So at that point in time, I typically
8	you know, I don't want to badger somebody. If
9	someone, you know, tells you no, I I you know,
LO	unless there's a a reason, unless there unless
L1	I I know of a situational change with that party,
L2	whether it's financial or whether we have some common
L3	interests elsewhere or you know, I don't want
L4	badger them and and just continue reaching out for
L5	the sake of just reaching out.
L6	Q Okay. So all of those communications you
L7	just referenced, they are included here in your
L8	Exhibit A-4, then. Is that correct?
L9	A Yes, sir.
20	Q Are you familiar with where vertically
21	Permian is stating the depth severance is occurring
22	between the Bone Spring Two and Bone Spring Three?
23	A So, yes, sir, I am. Let me pull that up.
24	Q Well, I guess my question to you is well,
25	my next question is, is both V-F and Permian in

1	agreement as to whether that depth severance is
2	occurring?
3	A So that that depth severance is yeah.
4	Yes and no. So yes, we recognize let me pull this
5	up. The depth severance that we were alluding to on
6	our cross, there's there's actually several depth
7	severances, and it's in the Third Bone Spring sand,
8	and our geologist, Mike Burke will speak more on this
9	matter. But in my cursory and keep in mind this is
10	my cursory review title review of section yes
11	14. V-F does not have any ownership in 14 and the
12	proposals do not go into section 14.
13	So we only attempted to ascertain, really,
14	the ownership interest of Permian Resources for
15	purposes of seeing what their working interest was in
16	their proposals. So when we initially did our
17	research into that section, V-F found that there were
18	a series of assignment bill of sales, mostly
19	pertaining mostly occurring in the northeast
20	quarter or or sorry, mostly occurring in the
21	northwest quarter, and they create several depth
22	severances that Permian has not stated whatsoever
23	in in their case or anywhere whatsoever.
24	And so the first depth severance that we're
25	seeing is a is a depth severance that is occurring

1	approximately around 9 9,290 feet. Okay?
2	That's again, the geologist will be able to speak
3	about this in more specificity. But there's that
4	creates a depth severance between the top of the
5	what we're calling, and I believe what Permian has
6	also stated in in their filings, the top of the
7	Bone Spring sand. It creates a depth severance
8	just below the top of the Bone Springs sand, and I'll
9	let Mike Burke talk more about that.
10	Then, this is and this is probably a
11	scrivener's error, but still it follows through in
12	title in the chain of title. There is a subsequen

scrivener's error, but still it follows through in title -- in the chain of title. There is a subsequent depth severance that Permian fails to reference at -- I believe it's at 9 -- 9,293 feet. So there's a 3-foot interval between the depth severance created in assignment bill of sale or an assignment of operating rights recorded at book 71, page 382, and in the assignment of operating rights recorded at book 113, page 701.

2.1

That is likely a scrivener's error, but nonetheless this runs with the title of the lands, and this would be something that Permian would have to likely cure before they obtain production. It's not necessary for them to drill. I believe they own an interest in that tract, so they can definitely drill

1	and complete a well in there. But accounting for that
2	3 percent depth severance is a problem.
3	Then Permian and this is where we kind
4	of kind of got caught off guard a little bit
5	here you know, in their in their cases,
6	they're when they proposed these they proposed
7	to try to pool the entire Bone Spring. So that would
8	be case number 25145, I believe, 25146, 25147, and
9	25148. The proposals purported to pool the entirety
10	of the Bone Spring and so did so did what their
11	application for pooling, and it's only in Travis
12	Macha's statement self-affirmed statement in
13	paragraph 4 that they state that or sorry,
14	paragraph
15	THE HEARING EXAMINER: Mr. Shaw, will
16	you hold on, please?
17	THE WITNESS: 7, that he
18	THE HEARING EXAMINER: Mr. McClure, did
19	you ask a question that required an answer of this
20	length?
21	MR. MCCLURE: I think what my question
22	was is whether they were in agreement on where the
23	depth severance was, and I guess the answer would be
24	no, they're not in agreement.
25	THE HEARING EXAMINER: Thank you.
	Page 173

1	MR. MCCLURE: I guess is the
2	THE WITNESS: yes and part no. Yes.
3	We are we are in agreement to the depth severance
4	at 9,397 feet. As to the other depth severances I
5	referenced, I don't know that we are in agreement with
6	that or not. I I don't know. Sorry.
7	BY MR. MCCLURE:
8	Q And this occurs in the northwest quarter of
9	section 14. Is that correct?
10	A Yes, sir. From what I can ascertain, yes,
11	sir. That that is the the depth severances I
12	found. The depth severance at 9,397 feet appears to
13	occur in the southeast quarter of the southwest
14	quarter of section 14. Again
15	Q Can you say that one more time? The
16	southwest quarter is where it's occurring?
17	A Yes, sir. The southeast quarter of the
18	southwest quarter is where the depth severance at
19	9,397 feet is occurring.
20	Q Okay. In V-F's case 25115, what is the
21	vertical extent that V-F is asking to pool in that
22	case?
23	A Let me pull that up. 25115. Correct?
24	Q That is correct.
25	A Okay. That is the Rainier 16 15 Fed Com
-	
	Page 174

1	234H, and we are only requesting to pool the third
2	Bone Spring formation.
3	Q Now, if there is no depth severance there,
4	why are you asking to only pool the Third Bone Spring?
5	A Because there is a well situated in the
6	north half/north half of section 15, which is a Second
7	Bone Spring horizontal well drilled by Mewbourne.
8	That was where we had to send notice to for the
9	overlapping spacing unit in this case. And so we
LO	would be restricted to 1-mile development in the event
L1	that we were to drill a Second Bone Spring in the
L2	north half/north half, so we wanted to ensure that we
L 3	didn't get a comingling, I guess, of the interest in
L <b>4</b>	the second in with third and the lateral legs being
L 5	different lengths and having to account for that
L6	difference. So in this case we're just pooling from
L7	the top of the Bone the Third Bone Spring down to
L8	the base of the Third Bone Spring.
L9	Q Is it accurate to state that in the south
20	half of the north half that V-F has also separated out
21	their cases
22	A Yes, sir. That is correct.
23	Q Oh, go ahead sir.
24	A No. Go ahead. My apologies.
25	Q I was going to do give you some more
	Page 175

	Concext. I was just going to say that 25110 being the
2	First and Second Bone Spring and case 25117 being the
3	Third Bone Spring. Is that accurate?
4	A 25116 being the Second and 25117 being the
5	Third. Yes, sir.
6	Q What is the reason for splitting these out
7	if there's no depth severance.
8	A So in case 25116, that was a Second Bone
9	Spring well proposal, and Permian that was
10	initially was the initial contest was in the
11	Second Bone Spring. So the the rationale that we
12	used was, where we were currently uncontested in the
13	Third Bone Spring, so what we wanted to do was form a
14	Second Bone Spring Com where we would be under contest
15	for operatorship, obviously, in the overlapping
16	section 15, and then would be unopposed in the Third
17	Bone Spring, being that Permian didn't have and we
18	didn't know whether or not we didn't think that
19	Permian would propose Third Bone Spring wells. So we
20	would be uncontested in the Third.
21	Q So then is it accurate to say that the only
22	reason that that north the south half of the north
23	half is split is due to Permian's cases, then? Is
24	that correct?
25	A Yes, sir. We were contested in the Second,
	Page 176

1	not contested in the Third.
2	Q Is it accurate to say that the V-F cases in
3	the south half are asking to pool the entirety of the
4	Bone Spring?
5	A Yes, sir.
6	Q Permian's competing case, isn't it only
7	asking to pool the First and Second Bone Spring?
8	A They're I believe they're cases 24941 and
9	24942. I believe that is correct. It was the First
10	and Second Bone Spring. And that's why we filed
11	separate cases for 25116 and 25117, because we were
12	thinking that we would be unopposed in the Third, that
13	Permian didn't have any interest in pursuing Third
14	Bone development, and in that case would be
15	Q Why didn't you split out your 24995 and
16	24994, then?
17	A We didn't think about it, I guess, before.
18	I mean, we proposed them together, and the proposal
19	letter said that we were forming a pool of the entire
20	Third Bone Spring, so since we made that
21	representation to the working interest owners, we just
22	went ahead with what we said we were going to do.
23	Q Now, was that you that had provided the list
24	of interest owners to Mr. Savage to provide notice of
25	these applications?

1	A Yes, sir. Yes.
2	Q For case 25115, that being the one that has
3	the unleased state minerals, is it your belief that
4	the State Land Office needs to be notified of this
5	application? If you don't know the answer, feel
6	free
7	A Yeah. It's it's a yeah. See my
8	rationale and this is my rationale, it's not
9	anybody else's is that since you can't pool state
10	minerals, there's no reason to necessarily notice.
11	You know, that that's kind of the way I think about
12	it. I'm sure the state would like to know and they
13	always want to know what's going on their state
14	minerals. So I'm sure I'm sure there's a I mean
15	you can go either way on that, to be honest.
16	Q Are you familiar with Ms. Beall's interest?
17	A Vaguely.
18	Q In V-F's rebuttal exhibits, are you the one
19	that had either put that together or was it put
20	together under your guidance?
21	A I put that together for the land portion of
22	it.
23	Q Does it include a description of Ms. Beall's
24	interest?
25	A I'd have to look.
	Page 178

1	MS. LUCK: And, Mr. McClure, I would
2	just offer that we can provide that after this
3	hearing, if necessary. I was just retained yesterday,
4	so I hadn't had the opportunity to put together any
5	kind of summary of her interest, but we're happy to
6	submit that to the Division if need be.
7	MR. MCCLURE: I assume we're going to
8	hear about that on the 13th, I assume, but if Mr. Shaw
9	is familiar with it.
10	BY MR. MCCLURE:
11	Q Did you say you were, Mr. Shaw?
12	A I I mean, I am not familiar with it in
13	the sense that I've done kind of research pertaining
14	to Ms. Beall's interest, but I do see her as in
15	in the list of assignees on Exhibit A, of assignment
16	bill of sale or assignment operating rights recorded
17	at book 71, page 382, and she does also appear in
18	assignment of operating rights reported at book 113,
19	page 701.
20	But this is not to say that this is the
21	entirety of the interest that she owns because I did
22	come across other assignments into her from the
23	Charles B. Read Trust and some other documents that I
24	can just remember off the top of my head from doing my
25	title research on Permian's interest in this tract,

1	trying to ascertain what Permian owns since they are
2	the predecessor or the sorry successor in
3	interest to Read & Stevens in section 14.
4	Q Based solely upon what you have here, is it
5	your belief that Ms. Beall owns interest above
6	9,290 feet and not below it?
7	A Yes, sir.
8	Q And based upon this, what you have in your
9	rebuttal exhibits, does all that interest occur in the
LO	northwest quarter of section 14?
L1	A To be honest, I can't I can't tell you.
L2	I can't remember what tract that Charles B. Read
L3	interest was assigning to. And then she obtained
L <b>4</b>	another interest, it looked like, from somebody who
L 5	was assigned an interest from Read & Stevens as well.
L6	So that to be honest, I can't tell you. I guess my
L7	guess would be she may own another tract as well.
L8	MR. MCCLURE: Okay. Thank you,
L9	Mr. Shaw.
20	Thank you, Mr. Hearing Examiner, I have
21	no further questions for this expert.
22	THE HEARING EXAMINER: All right.
23	Thank you, Mr. McClure.
24	Mr. Savage, any redirect?
25	MR. SAVAGE: Yes, Mr. Hearing Examiner,
	Page 180

1	if you don't mind.
2	MR. RANKIN: Mr. Examiner, XTO has a
3	few questions.
4	THE HEARING EXAMINER: XTO.
5	MR. RANKIN: Yeah. Of Mr. Shaw.
6	THE HEARING EXAMINER: Okay. So excuse
7	me, Mr. Savage.
8	MR. RANKIN: I apologize.
9	THE HEARING EXAMINER: I didn't
10	realize. Go ahead, Mr
11	MR. RANKIN: Thank you.
12	CROSS-EXAMINATION
13	BY MR. RANKIN:
14	Q Mr. Shaw, good afternoon.
15	A Good afternoon.
16	Q I'm representing XTO Holdings in this case,
17	and I know that V-F has had discussions with XTO over
18	potential participation in V-F's proposed spacing
19	units. Is that correct?
20	A Yes, sir.
21	Q Okay. And just so I'm clear, I want to make
22	sure I have the record straight. XTO is only in four
23	out of the five cases that V-F is seeking to pool. Is
24	that right? I think, Mr. Shaw, that XTO's not being
25	pooled in case 25115, which is, I think, the north

1	half/north half case. Is that correct? I know you're
2	getting to your notes. I was trying to help you a
3	little bit.
4	A XTO does not appear to be pool or being
5	pooled in the north half/north half, which would be
6	case 25115.
7	Q Okay. But it is identified as a pooled
8	party in the other four cases. Correct?
9	A Yes, sir.
LO	Q Okay. So now, you've had some discussions
L1	with XTO. Based on your chronology of contacts, I
L2	think it's the same for each of the cases in which XTO
L3	is being pooled, and that chronology of contacts is
L4	your Exhibit A-4. Correct?
L5	A Yes, sir.
L6	Q And it's the same chronology of contacts as
L7	to XTO for each of the four cases?
L8	A Appears to be. Yes, sir.
L9	Q Okay. Now, in the chronology of contacts,
20	XTO first got the well proposal, it looks like, on
21	9/13/2023. Correct?
22	A No, sir.
23	Q Okay. Tell me the
24	A I believe it looks like nine looks they
25	received it 9/8/23.

1	Q Okay. All right. I see for three of the
2	cases you've got 9/8/23 and two of the cases you have
3	9/13/23. Is that right?
4	A That's when I emailed 9/8/23 is when I
5	sent the JOA, and 9/13 it looks like I emailed Chad
6	Smith and he asked me to resend the JOA for, it would
7	be, cases 24994 and 24995. And then I in that same
8	conversation I extended an offer to acquire all of his
9	interest in in section 16.
LO	Q Okay. I see now that some of them have
L1	slightly different chronologies. Thank you for
L2	helping me realize that. But yeah. Okay. So there's
L3	slightly different chronologies. You sent JOAs to
L4	Mr. Smith, who is XTO's landman, at different dates
L5	depending on the case, it seems like. Right?
L6	A Yes, sir. That's so like I said, V-F's
L7	modus operandi is to send out JOAs and our proposals.
L8	So that would that would coincide with what we sent
L9	the proposals and all
20	Q Okay. Now, since that time, XTO and V-F
21	have been in discussions over XTO's participation in
22	these proposed space units. Correct?
23	A Yes, sir.
24	Q Okay. And do you have an understanding that
25	XTO prefers to enter into a JOA and participate in any
	Page 183

1	wells rather than be force pooled in these cases?
2	A So can you can you rephrase that? Sorry.
3	I I just I'm not understanding what you're
4	saying.
5	Q Sure. Do you have an understanding whether
6	XTO prefers to enter into a JOA with V-F rather than
7	be force pooled?
8	A Yes. Chad and I have had actually several
9	conversations about that, and I've received you
10	know, in a telephone conversation, actually, that
11	this happened recently he stated that he was
12	getting close to sending me the JOA that we had spoken
13	about putting together, but I have not received either
14	a markup of the JOA that I proposed or a new XTO JOA
15	that they would be fine with operating you know,
16	with V-F operating their interest under. So
17	Q Okay. So there's some back and forth right
18	now on the form of the JOA?
19	A Yes, sir. As recently as a few days ago.
20	Q Now, on your chronology of contacts, you say
21	that on 1/14/25, so that would just be about two weeks
22	ago, you received a call from Mr. Smith requesting
23	additional information and note that the parties are
24	continuing to negotiate. Did you provide the
25	additional information that Mr. Smith requested?
	Page 184

1	A Yes, sir. He was asking if we would waive
2	the initial well requirement under the joint operating
3	agreement, and and we said we would. And that
4	was I think that was the extent the conversation.
5	He said that he would have a JOA over to me that week.
6	Q Now, whether V-F is awarded operatorship for
7	its proposed 2-mile developments here depends on the
8	outcome of this contested case with Permian Resources.
9	Agree?
LO	A Yes, sir.
L1	Q And at this point, then, is it a little
L2	premature to sign onto a JOA for a 2-mile development
L3	when the results of this contested proceeding remain
L4	undetermined?
L5	A Can you can you rephrase that question,
L6	please?
L7	Q Sorry. Yeah. So in other words, whether or
L8	not V-F is awarded operatorship for a 2-mile
L9	development as it's proposing, it depends on the
20	outcome of these contested cases. Correct?
21	A Under the order, yes, sir.
22	Q Right? So V-F would only be awarded
23	operatorship if it prevails in these contested cases.
24	Agree?
25	A Yes, sir.

1	Q Okay. So my question just is, is it a
2	little premature at this point to sign a JOA while the
3	operatorship is still pending?
4	A No, sir. Permian's, you know, made
5	statements in their landman self-affirmed statement
6	that they're still working on or they have verbal
7	commitment from a party to to sign a joint
8	operating agreement. They haven't been awarded
9	operatorship over these lands. I mean, I think it's
10	prudent for for parties to continue attempting to
11	obtain voluntary joinder opposed to coming to hearings
12	such as this whenever it's feasible to do so, whenever
13	like-minded people can can enter into contracts.
14	And if we're not awarded the operatorship of these
15	lands, then obviously, you know, the the JOA by its
16	mere contract area would be, you know, null and void,
17	and I imagine any inroads that Permian would make with
18	the parties that the party that they say that they
19	have verbal joinder on a JOA would do the same if
20	they were not operatorship as well. So
21	Q Fair enough. Okay. So your point is that,
22	in the event V-F fails to win operatorship, then any
23	signed JOAs are basically meaningless, right, at that
24	point? Okay.
25	A Yeah. Absolutely. Yeah. 'Cause you're not
	Page 186

	awarded by the OCD as as the operator, so you
2	can't necessity that that contract's void
3	because you can't be the operator.
4	Q So, Mr. Shaw, I'll just represent to you
5	that XTO has instructed us to inform the Division that
6	XTO's going to remain neutral in these competing cases
7	until the award of operatorship is determined. I'll
8	represent to you that we did file a notice of entry of
9	appearance and objection on behalf of XTO. We'll
LO	withdraw the objection, so we'll remain neutral. XTO
L1	will remain neutral going forward. So I just want you
L2	make that clear for the record, Mr. Examiner and
L3	Mr. Shaw.
L4	Based on, I understand, your testimony
L5	Mr. Shaw, where you stated that V-F just wants
L6	partners to be committed to their development plans,
L7	would you commit to allow XTO to sign a JOA with V-F
L8	in the event that V-F is awarded operatorship, for XTO
L9	to sign on a JOA at that time?
20	A Yes, sir. We allow parties to sign the JOA
21	all the way up to spot. So even though we may have an
22	order in place, we still it's a preferable
23	method of operating is under a joint operating
24	agreement. It's not through an order. We we like
25	the terms of the 89 horizontal model form, and we like
	Page 187

1	to work things out. You know, we're we want to
2	work amicably with working interest owners every which
3	way we possibly can because we're non-operators in a
4	lot of stuff too and we don't like it when people try
5	to jam unmarketable terms on our throat, so we we
б	live by the Golden Rule, which is treat others the way
7	that you want to be treated.
8	Q Okay. Yeah. Just to be clear, in the event
9	V-F is awarded operatorship and receives a pooling
10	order, it commits to continue to work in good faith
11	with XTO towards a JOA. Agree?
12	A Yes, sir. And and any other party as
13	well.
14	MR. RANKIN: Okay. I don't think I
15	have any other questions at this time for Mr. Shaw.
16	Thank you, Mr. Examiner.
17	THE HEARING EXAMINER: Before we go to
18	redirect, I want the parties to understand that we
19	will not be continuing tomorrow. Next time we will
20	reconvene on this case will be February 13th to allow
21	anyone else to enter an appearance and enter evidence.
22	So it's two o'clock now. Freya, you
23	can let the court reporter know what we decided, and
24	we can go up to five o'clock today. So we have about
25	three hours left.

1	Mr. Savage?
2	MR. SAVAGE: Thank you.
3	REDIRECT EXAMINATION
4	BY MR. SAVAGE:
5	Q Mr. Shaw, let's begin with Ms. Vance's
6	treatise on science and engineering that she talked
7	about the evolution of science and engineering and the
8	movement from vertical wells, apparently, to
9	horizontal wells. First, do you view, like, for
10	example, the oil and gas industry, geology in
11	particular, as only a science, or do you consider,
12	like, say, geology being a science and an art?
13	A Yes, both.
14	Q And have you read some history about the oil
15	and gas industry?
16	A Yes, sir.
17	Q Okay. Can you just mention a few things,
18	maybe, that you have looked at?
19	A Yeah. Interestingly enough, the first
20	commercial oil and gas well was not even in the United
21	States; it was in southwestern Ontario, Canada, and
22	that predated the first oil and gas well that was
23	drilled in the United States outside of Bradford,
24	Pennsylvania, in the late 1880s
25	Q So, Mr. Shaw, you're familiar with the
	Page 189

1	trajectory and history of evolution of the oil and gas
2	industry?
3	A Yes, sir. Absolutely.
4	Q So when the oil and gas industry advances
5	from vertical well to 1-mile to 2-mile to 3-mile, does
6	that mean that you have to do, for example, a 3-mile
7	at
8	A No, sir.
9	Q So all those tools, 1-mile vertical, 2-mile,
10	those are all options that an operator could use
11	A Yes, sir.
12	Q for current development. Can you give
13	some examples where vertical wells are still useful
14	and economical?
15	A Oh, yes, sir. Absolutely. V-F actually is
16	in the process of commencing a a conventional oil
17	and gas Wildcat play in Texas, and we'll be drilling
18	vertical wells and then moving into a secondary
19	recovery utilizing either a water flood or some
20	some other lifting mechanism in order to enhance
21	what's otherwise a low-energy formation that we're
22	we're going to be targeting. So we have that
23	scheduled for Q2 early Q2 of 2025.
24	And we're we're really excited about that
25	because the cost, you know, unlike with what we're

1	seeing here in the horizontal development, we're
2	you know, we're we're you know, we're saying,
3	well, \$3 million is not really a lot of money compared
4	to \$5 million. You know, our total D&C AFE on those
5	wells are less than \$900,000, and and we the
6	economics of those wells proportionate to the cost
7	that it takes to drill it way way outperforms the
8	horizontal oil and gas market to especially to our
9	offset. We've seen some of these wells two hundred
10	fifty, three hundred thousand barrels, and you're
11	talking about a a small vertical well in comparison
12	to some of these horizontal wells.
13	Q So, Mr. Shaw, it sounds like V-F is pretty

Q So, Mr. Shaw, it sounds like V-F is pretty flexible and very agile in how it approaches its development.

2.1

A Yes, sir. So you know, we're -- we're a small outfit, small privately held outfit. We -- we like to take a sniper rifle to stuff opposed to a shotgun. So when we pick a prospect, it's because we -- we really like it. You know, we're not -- we're not just going to do it just because we have acreage there. A lot of times, you know, geology doesn't allow for it or, you know, instances where there may be another operator better suited to operate that prospect. You know, we don't have the pride where we

_	nave to operate everything. So year. We re we re
2	extremely flexible and, yeah, we're we like to
3	we like to target stuff that that makes sense, that
4	makes money.
5	Q And is that how and why you identified the
6	subject plans 15 and 16?
7	A Yes, sir. That was our previous geologist.
8	He he actually sourced this opportunity and
9	nominated these tracts based on the geology that he
10	saw in section 16 specifically. I can't speak to
11	whether or not he looked at sections 15 because I
12	don't know that at that time. But then when we
13	actually were awarded the you know, lease, BC 838
14	and VC 837, we started looking at, you know, which way
15	to go with that, and we could see the development
16	pattern from the west coming to the east, and it
17	looked it looked like it was going to lay out just
18	as it has. So I think we kind of zeroed in on
19	section 15 and and then, once we got what I think
20	is a good enough grasp to justify going out there and
21	acquiring some interest, we we went ahead and made
22	some proposals and and here we are now.
23	Q And how would you describe the behavior of a
24	larger company like Permian Resources in regard to how
25	it wants to do certain things regarding using longer,

for example, horizontal wells?

2.4

A In certain areas I think it -- it makes perfect sense. We're -- we're involved in a project right now where it's going shelf where -- and we're -- we're trying to take good rock and mix it with rock where it may not be as good and putting that rock at the toe. So there's -- there's certain areas that definitely justify longer laterals, but then there's certain areas that definitely justify sticking to the development plan that's already established in the area.

Q So it sounds like, based on the flexibility you have in terms of the strategies you can choose, V-F could actually, in a targeted manner, prevent waste and protect correlative rights better than a company like Permian Resources? Mr. Shaw?

A Yeah, sorry. Yeah. I'm just thinking about the question. When we get all-in on a project, we're all in. You know, we don't -- we don't have hundreds -- we're not drilling hundreds and hundreds, you know, of wells a year. You know, as Permian has pointed out, V-F Petroleum has drilled 18 -- well, they're trying to limit it to ten horizontal wells in Eddy County. The total is 18 total. But we -- we really do like to choose the locations and be -- be

1	thoughtful about where we're drilling, for sure,
2	because it is private money. I mean, if you drill
3	a you drill marginal acreage, it it can
4	definitely hurt you financially.
5	Q I'd like to move to your Exhibit A-3, and
6	this I believe it's case 24998. I believe
7	Ms. Vance talked about Permian Resources not being
8	listed on the ownership report, but you did list the
9	predecessor on that ownership report.
10	A Yes, sir. I believe so.
11	Q Okay. So Permian Resources, that was an
12	oversight?
13	A Yes, sir. Absolutely. I I would never
14	do anything to to attempt to hide the ball or gain
15	some sort of advantage by by incorrectly proposing
16	to a predecessor in title. That
17	Q And that oversight was made after you made a
18	good-faith effort to send out notice letters and
19	notice publication?
20	A Yes, sir. Yes. And it actually we sat
21	down or I sat down with Permian and attempted to come
22	up with a solution prior to us even filing pooling
23	applications. It was upon my receipt in late August
24	that I I sat down with Permian and attempted to
25	come up with an amicable solution to work for both us.

1	And we've had several discussions. They they
2	didn't like that proposal, so I made a subsequent
3	proposal in an attempt to to come up with an
4	amicable solution so that we can we can both get
5	this acreage developed.
6	Q And if you had the opportunity to amend the
7	application of the landman exhibits, which I
8	understand you will be doing that to address that
9	change in ownership, you would also address this
10	oversight as well.
11	A Absolutely.
12	Q Let's move to discussing the north
13	half/northwest of section 16. Your understanding of
14	open state land is that you cannot pool state land.
15	Would that be accurate statement?
16	A That's correct.
17	Q So you had no intention of pooling or did
18	you have intention or did you not have intention of
19	pooling when you described that land in the exhibit?
20	A It it was a scrivener's error. I had no
21	intention of pooling that tract.
22	Q And that also would be something that you
23	would address in a revised hearing packet?
24	A Yes, sir.
25	Q Did you describe during your answers how you
	Page 195

1	would address that open interest already? You've
2	described that and addressed that already. Is that
3	correct?
4	A Yes, sir, I have.
5	Q Okay. Permian Resources asked you a number
6	of questions about the timeline on applying for an APD
7	or a permit with the BLM.
8	A Yes, sir.
9	Q You included C-102s in your hearing packet?
10	A Yes, sir.
11	Q Are those C-102s signed and certified by an
12	official surveyor? It looks like at Exhibit A-1.
13	A Yes. Yeah. They're yeah. Exhibit A-1
14	and A-2. Yes, they are.
15	Q Okay. And so C-102s are ready to be
16	included in an APD packet to the BLM.
17	A Yes, sir. We we've also surveyed our pad
18	locations, our central tank battery, we've had
19	conversations with disposal companies in and around
20	the area looking to source electricity possibly in and
21	around the area. The nice thing is that we're off
22	222, so there's a lot of infrastructure right where
23	we're at. And we're on state land, so, as I stated in
24	cross, you know, we don't have to do
25	MS. VANCE: Mr. Hearing Examiner, I'm
	Page 196

1	going to object. This is not redirect. I did not ask
2	any questions about C-102s during cross-examination.
3	THE HEARING EXAMINER: Mr. Savage?
4	MR. SAVAGE: So she brought up the
5	whole subject of whether or not the APDs how long
6	it would take for the APDs, implying and suggesting
7	that it would be two years and V-F's leases would be
8	subject to expiration, and she pointed out that
9	Permian Resources had already filed their APDs and
LO	that they're ready to go, and I want to explore this.
L1	I would like to explore this because I will show you
L2	that they have not filed a sufficient packet of APDs
L3	to qualify to be approved, and that basically the two
L4	parties are on par, if possibly V-F being ahead of the
L5	game. So I think this is an area that really needs to
L6	be explored because Ms. Vance brought the whole
L7	subject matter up of APDs.
L8	THE HEARING EXAMINER: Okay.
L9	Ms. Vance, I remember your line of questions to this
20	subject matter, so I'm going to overrule your
21	objection.
22	But, Mr. Savage, we don't need a
23	hundred questions to understand this. A few questions
24	will bring out this information. So try to ask
25	pointed questions and let's move this along.

1	MR. SAVAGE: Okay. Yes. Yes,
2	Mr. Hearing Examiner. So my intention was to go step
3	by step and show the deficiencies, but in this case I
4	will describe
5	THE HEARING EXAMINER: Fine.
6	BY MR. SAVAGE:
7	Q Okay. So, Mr. Shaw, you're familiar with
8	Permian Resources' C-102s?
9	A Yes, sir, I am.
10	Q And do you agree that they are not certified
11	or signed by a surveyor and they're listed as a
12	preliminary C-102?
13	A Yes, sir. They're preliminary, and then the
14	plats on the back look to be like cartoons.
15	Q And you're familiar with the regulations
16	that govern submission of APD packets?
17	A Yes, sir.
18	Q Okay. So would those C-102s first of
19	all, C-102s are required to be part of the APD packet.
20	Is that correct?
21	A Yes, sir. You you need to have a C-102
22	that's stamped by a surveyor, and then you have to
23	have to have an actual survey in order for in order
24	for it to be reviewed even reviewed by the the
25	BLM.

1	Q And looking at those C-102s that Permian has
2	in their pack, they would not qualify to be part of a
3	APD packet. Do you agree? Is that a fair
4	A Yeah. From looking at the information
5	that's on this, you know, I can't you can't tell
6	the you can't tell the distance between, you know,
7	the surface hole location to the kickoff point, and
8	then it doesn't tell you the the distance, you
9	know, from you know, in one tract or another, and
LO	it has to kind of identify all of this information and
L1	just, it's not doesn't look like a an actual
L2	survey. It looks looks like a cartoon.
L3	Q So, Mr. Shaw, did you review and are you
L4	familiar with Permian's support letters?
L5	A Yes, sir, I am.
L6	Q Did you see in those support letters that
L7	they represented to the owners that they submitted
L8	APDs?
L9	A To answer your question, yes. There was a
20	statement in here it is. Okay. Yes. So
21	they're they're dated December 5, 2024, and they
22	say "applications for permit to drill." As the second
23	bullet point, it says "Permian has conducted several
24	on on-sites with the BLM, surface locations approved,
25	and has APD submitted."

1	Q So that's a quote: "Has APD submitted." So
2	if you received that letter, as a reasonable landman,
3	would you look at that statement and feel that an
4	actual completed packet has been submitted? "Has APD
5	submitted." Would that lead you to believe that
6	Permian Resources has accomplished the submission of a
7	completed packet?
8	A Yes, sir.
9	Q But based on Permian's documentation, what
10	is the status of their APD packet or possible packet?
11	A Well, I don't I don't have any type of
12	intrinsic knowledge on what APD has or has not
13	submitted to the BLM. What I do know is if those
14	C-102s were in fact submitted to the BLM, that that
15	would not be deemed to be a complete packet because it
16	fails to have the stamp and it's not an actual survey.
17	Q In your judgment, would you say that those
18	letters are misleading in regards to what they state
19	about "has APD submitted"?
20	A Again, I don't I don't know what they
21	have and have not done. I don't I don't know that,
22	so I don't don't feel comfortable saying what they
23	have and haven't done. But what I do feel comfortable
24	in saying is if those are the C-102s, that would be
25	deemed to be an incomplete package and would not be
	Page 200

1	reviewed by the BLM.
2	Q Okay. After you submit a complete packet
3	that includes the completed, signed C-102s, are you
4	familiar with how long it takes for the BLM to approve
5	the APDs after submission?
6	A Yes, sir. As I stated in cross,
7	anecdotally, you know, and we're we're involved as
8	a non-op in this, but we've we've seen it as quick
9	as, you know, eight, nine months and, in some
10	instances, you know, less than a year. So it kind
11	of it's all dependent on your NRS agent, you know,
12	and who that NRS agent has. You know, if they have an
13	extremely active operator and they're just inundated
14	with federal permits and if you just happen to have
15	the unlucky draw, drawing that NRS agent, then it can
16	take it can take a while. V-F is fortunate that
17	the NRS agent that we have is is a newer NRS agent
18	and has been assigned smaller operators to
19	Q Mr. Shaw, would it surprise you I'm
20	sorry. I don't mean to interrupt with you, but would
21	it surprise you that under the regs it takes only
22	30 days for the BLM to approve an APD once the
23	completed packet is submitted?
24	A Yeah. That would surprise me. Yes, sir.
25	MR. SAVAGE: Mr. Hearing Examiner, may
	Dage 201

1	I show where the regs show that it's 30 days?
2	THE HEARING EXAMINER: What's the
3	point?
4	MR. SAVAGE: The point would be that
5	that V-F is positioned with completed C-102s and other
6	documentations that, once they submit that, that would
7	counter what Ms. Vance has been arguing that it would
8	take nine months, two years. But the point is, under
9	the BLM regs, the OCD should know that it would only
10	take 30 days for approval.
11	THE HEARING EXAMINER: Okay. We'll
12	take administrative notice of the BLM regs.
13	MR. SAVAGE: Thank you, sir.
14	THE HEARING EXAMINER: Are there any
15	more questions for this witness on redirect?
16	MR. SAVAGE: Yes, sir. Yes, sir. If
17	you don't mind.
18	THE HEARING EXAMINER: Go ahead.
19	MR. SAVAGE: Thank you.
20	BY MR. SAVAGE:
21	Q So Permian Resources pointed out that you
22	changed your AFE giving different amounts that differ
23	by as much as, you know, 5 million, 4 million,
24	3 million. Can you describe the nature of an AFE very
25	quickly and whether it changes under the industry

1	standard?
2	A Yeah. An AFE is just it's exactly what
3	it is. It's a it's an estimate, and your your
4	goal is to try to ascertain at that time what you
5	think would be what your cost would be of drilling
6	a or taking on a future a future project.
7	Q And the last question I think I have here,
8	Mr. Rankin brought up the questions regarding XTO and
9	whether or not they could enter or negotiate for a
LO	JOA. In your experience with pooling, can a JOA be
L1	entered before, during a pooling, and even after a
L2	pooling where the JOA would supplant the pooling
L3	order?
L4	A Yes, sir. Absolutely. And it's our
L5	preferable method of obtaining joinder of working
L6	interest owners. So even when we have obtained
L7	pooling orders in the past, it is much more preferable
L8	to get joinder under an operating agreement. It's
L9	just a it has all the terms and conditions, it
20	contains, you know, the and some of the other
21	things, and so it's just it's just a much easier
22	dichotomy to operate under than than the pooling
23	order.
24	Q So all the questioning about whether or not
25	a JOA is premature prior to an order, would you agree

1	that that's irrelevant considering that a JOA can be
2	entered any time during the process, even well after a
3	pooling order is issued?
4	A Yes, sir. I think what Mr. Rankin's
5	statement was about was whether or not his client
6	would be bound by the operating agreement should V-F
7	not prevail. And obviously, due to the fact that if
8	operator if V-F would not be the operator, then it
9	couldn't fulfill its role under the operating
LO	agreement, then that operating agreement would then
L1	become null and void.
L2	Q And, Mr. Shaw, you had a discussion with
L3	Ms. Vance about ownership in tracts in section 15
L4	versus ownership in units. From a production point of
L5	view and drilling and the operation and management of
L6	the drilling operations in the unit, what do you
L7	believe is more important in terms of working
L8	interest?
L9	A What your actual working interest is in the
20	spacing unit. Because that's how that's how costs
21	and that's how production gets allocated.
22	Q And can you just real quickly point out
23	where V-F prevails in those units in that regard?
24	A Yes, sir. Yes, sir. So it would be
25	case 24994, V-F would have three 2.895834 percent,

1	Permian Resources would have 23.9375 percent. In case
2	24995, V-F would have 32.895834 percent, Permian
3	Resources would have 23.9375 percent. In case 25116,
4	V-F would have 44.458334 percent and Permian Resources
5	would have 32.453125 percent. In case 25117, V-F
6	would have, again, identical interest. So in four out
7	of five cases, V-F would have the largest working
8	would be the largest working interest owner in the
9	horizontal spacing unit and V-F's interest would be
10	greater than Permian's.
11	MR. SAVAGE: Thank you, Mr. Shaw. That
12	concludes my questioning.
13	THE HEARING EXAMINER: Mr. McClure, are
14	there any questions on those redirect questions?
15	THE WITNESS: Mr. Hearing Examiner, I
16	have one quick follow-up on that very last question
17	from Mr. Savage.
18	THE HEARING EXAMINER: Go ahead.
19	RECROSS-EXAMINATION
20	BY MR. MCCLURE:
21	Q Mr. Shaw, when you're referencing Permian's
22	ownership, you're only comparing Permian's ownership
23	in the HSU that V-F is proposing. Is that correct?
24	A Yes, sir.
25	Q And you are not comparing that to the
	Page 205

1	competing case that we're actually comparing here. Is
2	that correct?
3	A Yes, sir.
4	MR. MCCLURE: Okay. Thank you,
5	Mr. Shaw.
6	No further the questions, Mr. Hearing
7	Examiner.
8	THE HEARING EXAMINER: Ms. Vance?
9	MS. VANCE: Yes. Just a couple of
10	questions. I had a treatise question, but I will
11	forego that and move along.
12	RECROSS-EXAMINATION
13	BY MS. VANCE:
14	Q So, Mr. Shaw, you mentioned that you do not
15	hide the ball, but I did want to ask a question. Now,
16	you know that Permian acquired Mewbourne's interest,
17	correct, in section 15?
18	A Yes, ma'am. It acquired yeah. It was
19	Mewbourne, but it was also it was a few other
20	Mewbourne-related entities such as CWM 2000-B dash
21	[sic] II, Limited, 3MG Corporation, and Mewbourne
22	Development. The only way I know that they're related
23	is that they have the same address as Mewbourne's
24	corporate office in Tyler Mewbourne Oil Company's
25	corporate address in Tyler. I'm having to make a

1	guess, but
2	Q And you were aware of that acquisition
3	before these contested hearing cases. Correct?
4	A Yes, ma'am.
5	Q Okay. And you sent a proposal to Mewbourne
6	initially. Correct?
7	A So you're referring to in cases
8	Q 24994 and 24995, I believe.
9	A Yes, ma'am. That so when I made those
10	proposals, yes, Mewbourne was the owner at that time.
11	Q Okay. And you said that you were aware that
12	Permian acquired that interest. Did you follow up
13	with Permian to provide them a copy of that proposal
14	after knowing that they had acquired that interest in
15	section 15?
16	A Can you restate that question? Sorry.
17	Q Knowing that Permian had acquired
18	Mewbourne's interest, did you then send them a copy of
19	the proposal that you had previously given to
20	Mewbourne?
21	A I believe Travis reached out to me, and I
22	ended up sending it vis-a-vis email to him. I can't
23	remember the the timeline on that.
24	Q And you sent it around December. Right?
25	After filing applications.

1	A I don't I don't know that, but I'll
2	I'll take the word for it.
3	Q Okay. Now, one last brief question here.
4	Mr. Savage brought up a series of questions related to
5	the C-102s in our hearing packet. Do you know if
6	these are the same C-102s that were submitted with
7	Permian's APDs?
8	A No, I I don't, but I wouldn't I don't
9	know why that they would submit something here that's
10	now what they submitted there. But no, I don't.
11	Q You don't. Okay.
12	MS. VANCE: Thank you.
13	THE HEARING EXAMINER: Thank you.
14	Mr. Rankin?
15	MR. RANKIN: Nothing further.
16	THE HEARING EXAMINER: All right.
17	Thank you. This witness may be excused.
18	Okay. Mr is it Burke? Okay.
19	Thank you. Now, remember, put your microphone on,
20	please pull it forward on your desk so we can hear
21	you.
22	Mr. Savage, your direct examination of
23	Mr. Burke?
24	MR. SAVAGE: Thank you, Mr. Hearing
25	Examiner.
	Dags 200
	Page 208

1	WHEREUPON,
2	STEPHEN BURKE,
3	called as a witness and having been first duly sworn
4	to tell the truth, the whole truth, and nothing but
5	the truth, was examined and testified as follows:
6	DIRECT EXAMINATION
7	BY MR. SAVAGE:
8	Q Mr. Burke, for the record, please state your
9	full name. We already did that. Excuse me. And then
10	you've been qualify as an expert witness. Are your
11	self-affirmed statements provided as Exhibit B along
12	with your sub-exhibits in case 24994, 24995, 25115,
13	25116, and 25117?
14	A Yes, sir.
15	Q Have you reviewed these?
16	A Yes, I have.
17	Q And the statements and sub-exhibits in these
18	cases are correct and accurate to the best of your
19	knowledge.
20	A Yes.
21	Q And, Mr. Burke, are there any edits or
22	revisions or corrections that you need to do in any of
23	these?
24	A Not that I'm aware of.
25	Q Okay. And you have a submitted five geology
	Page 209

1	exhibits in each case, B-1 through B-5. These are
2	your standard, as I would view, these are your
3	standards geology exhibits?
4	A Yes.
5	MR. SAVAGE: I tender Mr. Burke as an
6	expert witness in geology and make him available for
7	cross-examination.
8	THE HEARING EXAMINER: Thank you.
9	Mr. Rankin?
10	MR. RANKIN: Thank you, Mr. Examiner.
11	I'm just getting my screen set up so I can share.
12	Sorry. One moment, Mr. Examiner. Okay.
13	CROSS-EXAMINATION
14	BY MR. RANKIN:
15	Q Okay. Mr. Burke, just so I'm clear, your
16	background here, you are a petroleum geologist.
17	Correct?
18	A Yes.
19	Q And I understand from Mr. Savage that you're
20	going to be testifying to some extent on some
21	engineering type issues. Is that right?
22	A Yes. I I've testified many times before
23	this in the Railroad Commission and the Louisiana
24	Department of Conservation. I have been allowed by
25	this body and the Railroad Commission to testify to

1	the calculation of reserves on uncontested cases.
2	Q What goes into calculation of reserves?
3	A It's typically volumetrics. You know,
4	material balance and volumetrics calculations,
5	sometimes oil in place, but water saturations, and
6	then it can be a decline curve analysis also.
7	Q Okay. So have you performed any of that
8	work in your direct testimony?
9	A No.
LO	Q And have you performed any of that work in
L1	any rebuttal testimony?
L2	A No.
L3	Q Okay. Will you be offering any opinions
L4	that relate to testimony around calculation of
L5	reserves?
L6	A I I have discussed my opinions of of
L7	the exhibits that were presented to us in this case
L8	with our our company and our attorney, so I I've
L9	offered them my opinions on things.
20	MR. RANKIN: Okay. Mr. Examiner, I
21	think at this time I would reserve the right to do a
22	voir dire of the witness at the time when his
23	testimony calls into question the expertise, but at
24	this point I don't think it's worth going into it
25	because I don't know what his opinion's going to be.

1	THE HEARING EXAMINER: Okay.
2	MR. RANKIN: Okay.
3	BY MR. RANKIN:
4	Q So just to be clear Mr. Burke, your
5	testimony is, I think, attached as Exhibit B in each
6	of the five cases that V-F has submitted. Is that
7	right? B as in boy.
8	A I'm sorry. I didn't understand that
9	question.
10	Q Your self-affirmed statement that you
11	submitted in support of V-F's applications are marked
12	as Exhibit B in each of the five cases. Is that
13	correct?
14	A Yes.
15	Q Okay. And in your testimony you're
16	evaluating the appropriateness of the geology for
17	development by horizontal wells. Correct?
18	A Yes.
19	Q And you're testifying that you have not
20	identified any impediments to drilling horizontal
21	wells as V-F has proposed. Correct?
22	A Yes.
23	Q Okay. I'm going to direct your attention.
24	I'm going to share my screen here as soon as I manage
25	to do so. Once I get it up on the screen, let me know

1	when you can see it. It should show up on the screen
2	in front of you. Do I have a copy of your
3	self-affirmed statement from Exhibit B in case 25115
4	in front of you?
5	A It appears so.
6	Q Okay. Now, in your testimony here, I'm
7	going to skip down to Exhibit B-3. I think, as I
8	understand, this is an isopach map representative of
9	the two sections that V-F Petroleum is seeking to
10	develop. Is that right?
11	A Yes, sir.
12	Q Okay. And that isopach map has contour
13	intervals of what are the contour intervals there?
14	A They're 50-foot contour intervals.
15	Q I'm sorry. They're what?
16	A Fifty-foot contour intervals.
17	Q Fifty foot? Okay. Why did you choose
18	50-foot contour intervals for this isopach map?
19	A That is adequate to display the distribution
20	of the sand across this area.
21	Q Okay. And what's the purpose of this
22	isopach map?
23	A The purpose is to show that across this
24	area, for this particular sand, which I believe that
25	is the Third Bone Spring sand there, that it's that

it's distributed across the area, there are no severe
thins or severe thicks, that it's that it's
distributed across the entire area in question here.
Q When you say "no severe thins or no severe
thicks," what do you mean by that?
A Well, for example, it looks like most of
this acreage here here has, if you look at the blue
numbers, those of the actual values. Mora County here
is just the height of the package that the sand is
contained in. So this one for the Third Bone Spring
would be from the top of the Third Bone Springs to the
base of the Third Bone Spring. It's just a
measurement of that distance.
Q Okay. So I believe you said that this case
is for the Third Bone Spring, but you've done a
similar map for each of the cases, whether it's the
Third Bone Spring or Second Bone Spring.
A The second also.
Q Right. So this one here, I'm showing your
B-3 in this case, 25116, would be for the Second Bone
Spring?
A I believe that's the Second Bone Springs,
yes.
Q Okay. And it's 50-foot contour intervals
here as well?
Page 214

1	A Yeah. If you'll scroll down just a little
2	bit, you can look in that title block down there at
3	the lower right-hand corner of it, it says CI, that's
4	the contour interval, it's I tried to display that
5	there.
6	Q Okay. So 50-foot contour intervals for the
7	Third Bone Spring. And again, it's your opinion that
8	that 50-foot contour intervals is adequate to
9	demonstrate the
10	A Distribution of the sand across the area.
11	Q Okay. The distribution of the sand across
12	the area. Right? And whether it's the Second Bone
13	Spring or Third Bone Spring, it's the same map, right,
14	for each of these cases? In other words it's the same
15	Third Bone Spring isopach map that you present for
16	each of the Third Bone Spring cases?
17	A That's correct.
18	Q And it's the same Second Bone Spring isopach
19	map for each of the Second Bone Spring
20	A All these cases
21	Q So I don't have to go through each of them.
22	Right?
23	A No one time is good enough.
24	Q Got it. Okay. So now we've got 50-foot
25	contour intervals, and, as I understand from your
	Page 215

1	testimony, this is a gross isopach map. Right?
2	A Right.
3	Q Okay. And tell me what you mean by a gross
4	isopach map.
5	A It it is it is the gross interval that
6	contains the sand. So to be exact, on the
7	cross-section you'll see marked top of the Third Bone
8	Spring sand, and there's a depth associated with that.
9	And then at the bottom of it, it says base of the
10	Third Bone Spring sand. That height, if you count it
11	up on the log, you know, is 350 feet or whatever it
12	is. It's strictly a height calculation.
13	Q Okay. So that's the full amount of that
14	Third Bone Spring from top to bottom.
15	A It's it's all of it. How thick it is.
16	Q And in each of your statements I'll
17	scroll up you state that you rely on your
18	Exhibits B-1 through B-5 to make the following
19	conclusions under paragraph 10. Correct?
20	A Right.
21	Q And one of those conclusions I've
22	highlighted here is that each quarter/quarter section
23	in the unit will contribute more or less equally to
24	production. Correct?
25	A each quarter section in the unit will
	Page 216

1	contribute more or less equally to the production.
2	Based on this map, yes.
3	Q Okay. So in other words, based on your
4	representation that the isopach demonstrates that the
5	sands have adequate distribution across the proposed
6	interval, your testimony is that each quarter/quarter
7	section will contribute more or less equally to
8	production. Correct?
9	A Without any further investigation, that's
10	correct.
11	Q Okay. Very good. Now, you also prepared
12	rebuttal slides. Correct?
13	A Yes.
14	Q And in your rebuttal slides, you prepared a
15	net isopach map. Correct?
16	A Yes. Correct.
17	Q Okay. I'm going to pull that up because I
18	want to understand the difference between the two,
19	okay, and whether it changes your opinion. Now, I
20	believe this is rebuttal Exhibit 10. Is that correct?
21	A You believe what?
22	Q This net isopach map that you prepared for
23	rebuttal is marked as rebuttal Exhibit 10. Is that
24	correct?
25	A Right. It's for rebuttal, yes.
	Page 217

1	Q That's correct? Okay. Now I want to ask
2	you some questions about this. This also is an
3	isopach map. Correct?
4	A Yes.
5	Q But the difference between this one and what
6	was included in your Exhibit B-3 in your direct is
7	that this is a net isopach map. Correct?
8	A That's correct.
9	Q Can you explain to me the difference? What
10	is a net isopach map and how is it different from a
11	gross isopach map?
12	A I I would happy to. This is to attempt
13	to more clearly understand the quality of the
14	reservoir within the thing that I have already mapped
15	in a gross interval. In other words, this is a
16	would be a map that would be used by the geologist and
17	the engineer in an area working it to try to determine
18	which areas are better prospective to find better sand
19	than accumulations of gas or oil, you know, in the
20	area, because 'cause they represent areas with
21	it depicts the quality of the sand within that gross
22	interval, where the gross interval doesn't depict
23	quality. This this is a simplified version of
24	doing that.
25	Q Okay. So as I understand, the gross isopach
	Page 218

1	is simply from top to bottom. Third Bone Spring from
2	top to bottom.
3	A Right.
4	Q Whereas the net isopach map is an attempt to
5	identify, in your opinion, where the higher quality
6	rock is located or higher quality sand is located.
7	Correct?
8	A That's correct.
9	Q Okay. So on this map I'm going to have some
LO	questions for you, but basically, as I understand, and
L1	I may need to scroll down please direct me to zoom
L2	in or, you know, do what I need to do here. I don't
L3	see a key here, but I presume that the redder colors,
L4	the warmer colors show a higher net isopach. Is that
L5	correct?
L6	A That's correct. That's correct.
L7	Q So that would be a higher quality rock.
L8	Correct?
L9	A Yes, that's correct.
20	Q Okay. Now, I want to ask you some questions
21	about how you came to create this map. Okay? How you
22	determine quality based on what you derive from the
23	logs, well logs and so forth. Okay? How do you go
24	about creating a net isopach map?
25	A Well, on these, these particular maps, I
	Page 219

1 I used the -- the raw image logs and interpreted all 2 those logs. And what I did was I used a porosity cutoff of 8 percent. So I basically said everything 3 over 8 percent porosity qualifies as pay. Everything 4 5 below 8 percent porosity does not qualify as pay. So 6 that's a -- that is a cutoff of porosity. Some people use 6 percent, some people use 10 percent. I use 8 8 percent. And it's -- and it's a pretty standard for 9 this area. And it -- it is a map that can be done 10 without claiming any proprietary data or secret 11 methods or anything like that. It is what it is. 12 And --13 And -- oh, I'm sorry. Go ahead. I didn't Q 14 mean to cut you off. 15 And then I have a second cutoff. I have a 16 cutoff for gamma ray. And gamma ray has got to be 17 hotter than to be pay. With the 8 percent porosity, it's got to be hotter than 60 API units. And what --18 19 what you observe in this particular area is, once you 20 begin to get cleaner or colder than 60 API units, 21 you're -- you have a large concentration of limestone. 22 So -- so the 60 API unit identifies the lithology in a rough way as being either sand or a sandy shale 23 that -- that could have a -- a high degree of -- of 24

Page 220

TOCs in it, but it's not limestone.

25

1	Q Just to be clear, TOC means total organic
2	carbon?
3	A Total total organic carbon, yes.
4	Q My brain's going. TOC is total organic
5	common [sic], and that equates with potential for
6	hydrocarbons. Right?
7	A Yes.
8	Q Okay. So just to be clear, in summation,
9	then, you use gamma ray as a second cutoff, and your
10	cutoff is anything above 60 API units indicates pay.
11	Correct?
12	A Sixty API units and above 8 percent
13	porosity.
14	Q And above 8 percent porosity. Because
15	anything smaller than 60 API is indicative of
16	limestone. Correct?
17	A Higher concentration of limestone.
18	Q Higher concentration of limestone. Okay.
19	So those are your two cutoffs. Are those are the only
20	two cutoffs that you employed to create this map?
21	A cutoffs on these maps.
22	Q On the porosity, what kind of I mean, I
23	understand there's different types of porosity
24	readings from logs. Is it a density porosity? What
25	was the type of porosity?

1	A Yes. If you look at that title block down
2	there, you zoom in on it there, it explains but I
3	will explain it. I I use the cutoff most of the
4	logs that were run out here in this area are are
5	dated. They were run, you know, ten-plus years ago.
6	Most of these horizontal wells do not have have
7	logs run on them at all as far as case you know,
8	open-hole logs. Most of these wells were Morrow wells
9	or Old Bone Spring wells that were drilled from about
10	2010 and earlier. And once the horizontal drilling
11	began, due the cost and the mechanical risk of logging
12	a well a wire line down a lateral hole and people
13	getting stuck and losing a lot of money and all that,
14	they they got away from that.
15	Plus, you know, these are a measurement
16	of you go straight through the formation logging it
17	so you get a good idea of the thickness of the
18	different formations at all. Whereas, when you turn
19	the corner, you're reading the same thing over and
20	over again. So if you drill a well in the Second Bone
21	Spring, you don't you don't even have the
22	opportunity to log the Third Bone Springs 'cause you
23	don't get to it, you know.
24	So most of these are dated logs. I forgot
25	where I was going with this. Most of these are are

1 dated logs, but it's good quality logs. 2 I guess the question is about the 0 Yeah. 3 type of porosity that you are using to calculate your 4 net pay. 5 Α And -- and most of these logs, by far 6 and away, ran a density neutronics -- is a standard log that was run in this area on a limestone matrix to 8 evaluate these areas. Many of the older logs, though, 9 or usually before 1960 or so when -- where they really 10 perfected really well the density neutron tool, may 11 only have a sonic porosity on there. And if that's 12 the case, I -- and they didn't have a density neutron, 13 I used the sonic porosity with a -- with a cutoff that is 64 microseconds or slower, which equates to about 14 15 an 8 percent density based on some sensitivities that 16 I've done over the years comparing the two when you 17 had both of the logs on a well and you compared what 18 sonic reading would relate well to the density neutron reading. 19 20 So some of the logs in here are sonic 0 Okay. porosity logs? 21 22 Α Yes. 23 And some are density neutron logs? Q 24 Α Yes. And in order to derive your porosity 25 Q Okay. Page 223

1	cutoff, you're having to make interpretations about
2	transforming or transferring your sonic porosity
3	evaluation into a same sort of calculation as your
4	density porosity. Right? You're having to make some
5	determinations about how to align those.
6	A Typically, no. I on the density neutron
7	log, you know, that's a direct reading of the density
8	of the of the rock. It's it's run on a matrix
9	because different rocks have different matrixes, and
10	to make the calculation you got to compensate for that
11	matrix.
12	So for example, a density neutron log run on
13	a limestone matrix, just due to the math on it, really
14	actually has about 6 percent porosity. If you were
15	to if you were to make the calculation and run the
16	density neutron on a sandstone matrix, where it would
17	run 8 percent on a limestone matrix, on a sandstone
18	matrix it'd be down to 6 percent just because the
19	densities of the matrix material, lime versus sand, is
20	different and it goes to different end of the
21	equation. That's that's run as the log's being run
22	and displayed for you.
23	So really, a 6 percent is is a pretty
24	good number for the density neutron. If you had a

good number for the density neutron. If you had a bulk density log, which didn't compensate for the

25

1	matrix, and eight the 8 percent cutoff I use on
2	these density neutrons is is essentially
3	equivalent. And like I said, the sonic logs, I use
4	that 64-microsecond cutoff because I've studied over
5	the last 30 years, you know, comparing sonic
6	porosities to density neutron porosities when both
7	logs were available in sandstones, and then the last
8	ten years particularly the Bone Spring sandstones, and
9	that 64-microsecond cutoff equates well to a 8 percent
10	cutoff on a density neutron log. So
11	Q Okay. But all that's based on your
12	experience, and another geologist may come to
13	different conclusions about how to align those.
14	Right?
15	A Yes, yes.
16	Q And so, you know, net isopach maps do
17	involve some interpretation. As you yourself said,
18	you're interpreting the logs
19	A Yes. Interpreting the logs.
20	Q Right. And you're coming up with your
21	assessment of what the net isopach should look like
22	based on your interpretation of the logs. Right?
23	A Correct.
24	Q Okay. And now coming back to my question
25	that I asked earlier, and I understand that the hotter

1	colors, the redder colors, in are indicative here of a
2	higher pay, higher quality rock. Agree?
3	A Yes.
4	Q And although it's a little hard to read on
5	this map, just so I'm clear, the section here that I'm
6	trying to highlight with my cursor, with the hottest
7	color, that's section 15. Correct?
8	A That is correct.
9	Q Okay. And to the west here, immediately to
10	the west, is section 15. Correct?
11	A That's correct.
12	Q I'm sorry.
13	A Sixteen.
14	Q Section 16. Correct?
15	A Yes.
16	Q Okay. So the hottest, highest quality rock
17	is in section 15, according to your interpretation.
18	A That's
19	Q And section 16 is somewhat lower quality
20	rock. Agree?
21	A Yes.
22	Q Okay. Now, in V-F's land statement and
23	you were here for Mr. Shaw's testimony, were you not?
24	A Yes.
25	Q Did you hear Mr. Shaw testify that in
	Page 226

1	section 15 Permian Resources owns the overwhelming
2	majority of interest?
3	A Yes.
4	Q Okay. So Permian owns the overwhelming
5	majority of interest in section 15, but V-F is
6	nevertheless seeking to develop Permian's interests,
7	which has the best quality rick. Agree?
8	A Yes.
9	Q Based on your analysis on the isopach map,
10	which has a substantial difference between the quality
11	of the rock in section 15 and section 16, is it still
12	your opinion that each quarter/quarter section in the
13	unit will contribute more or less equally to
14	production under V-F's proposed development?
15	A Based on this this look this second
16	look at it, no. I would I would qualify that some
17	sections are and quarter sections are clearly
18	better than the others based on the net pay.
19	MR. RANKIN: No further questions.
20	THE HEARING EXAMINER: Ms. Vance?
21	MS. VANCE: No questions.
22	THE HEARING EXAMINER: Mr. McClure?
23	MR. MCCLURE: Thank you, Mr. Hearing
24	Examiner. I just have a few clarifying questions.
25	//
	Page 227

## 1 CROSS-EXAMINATION 2. BY MR. MCCLURE: Mr. Burke, if I can draw your attention 3 0 4 to --5 MR. MCCLURE: Do you still have it up there, Mr. Rankin? Available, maybe? 6 7 MR. RANKIN: I can do that. Give me 8 one moment. MR. MCCLURE: Thank you, sir. I was 9 looking -- yeah -- on V-F's rebuttal exhibits. 10 11 I guess those are the case. If you go to the rebuttal 12 exhibits, please, on the cross-sections on page 126. 13 MR. RANKIN: Maybe the next one up. 14 You mean this one? Let's see. 15 MR. MCCLURE: That one right there. 16 MR. RANKIN: Okay. 17 BY MR. MCCLURE: Maybe I'm looking at a different file 18 0 Yeah. than you are but, Mr. Burke, do you see the 19 20 cross-section I'm referring to? You're talking about this cross-section, 2.1 yes, sir, that's on the screen? 22 23 Yeah. And it looks like you have, like, the Q net pay highlighted in yellow? Is that correct? 24 25 Α Yes, yes. That is the net pay.

1	Q The underlying cross-section that you got
2	the net pay highlighted on, is this the same
3	cross-section from your Exhibit B in the normal
4	exhibit packets?
5	A Yes. It is the same cross-section, same
6	wells. The the cross-section that I did for the
7	original testimony on the hearings was I colored brown
8	the interval that I isopached for the the gross
9	isopach. This, where you see it's shaded yellow, is
10	where I've interpreted net pay, and overlaying that on
11	top of the the interval so you can see the
12	distribution of the net pay within the overall
13	package. Does that make sense?
14	Q Yes
15	A So the isopach map is is the adding up of
16	all of the yellow within that interval. The the
17	net isopach. The gross isopach is the whole interval.
18	MR. MCCLURE: Mr. Rankin, if I could
19	get you to put it to well, mine is page 17. It's
20	the cross-section that's towards the beginning of the
21	rebuttal exhibits. Yeah. There we go. Thank you,
22	Mr. Rankin.
23	BY MR. MCCLURE:
43	
24	Q Mr. Burke, is this also that same

1	A That's the same cross-section. The V-F
2	asked me to put that together and to demonstrate where
3	the depth of the vertical severance or the
4	horizontal severance is in in the area that we've
5	been arguing about all afternoon, you know, or
6	morning. That that red line down there that's
7	about a third of the way from the top of the Wolfcamp
8	or two-thirds of the way from the top of the Third
9	Bone Springs is that depth where that's coming into
10	question.
11	Q And that depth severance, that red line
12	that's illustrated there, that is just less than
13	9400 feet. Is that correct?
14	A That that
15	Q I can't make it out.
16	A Yeah. I think I think so. Let me I
17	can pull it up a little closer on my screen. But
18	yeah, that sounds correct. I I don't I don't
19	have on my I didn't know I was going to be asked
20	about the the rebuttal cross-sections, so I all
21	I can see is on this. I don't have it on my tablet
22	over here. So yeah. If you say it's 9400, that
23	sounds about right.
24	Q Well, I guess that's my question to you.
25	Because this cross-section that we have here is kind

1	of low resolution, and I'm trying to make it out
2	A That's the cross that's the cross-section
3	I made, and it looks like that number is, like that
4	line is at like 9400. Yeah. That that looks very
5	close. Maybe maybe a little bit shallow of that.
6	Maybe 9395 or something. And that that well that I
7	put it on there is is the is the Mewbourne well
8	that's referred to over and over again by Permian
9	as as kind of a type log to the area that they like
10	to tie their tops back to.
11	Q And the C-2 here is the same C-2 as all the
12	other cross-sections because it's the same underlying
13	cross-section.
14	A Yes, sir.
15	Q Okay.
16	A I tried to tie it all together where it
17	makes sense.
18	MR. MCCLURE: Okay. Thank you, sir.
19	Thank you, Mr. Hearing examiner. I
20	have no further questions for this expert.
21	THE HEARING EXAMINER: Mr. Savage, any
22	follow up on those questions?
23	MR. SAVAGE: I just have one. I think
24	that would do it.
25	//
	Page 231
	raye 231

1	REDIRECT EXAMINATION
2	BY MR. SAVAGE:
3	Q So, Mr. Burke, you heard Mr. Shaw's
4	testimony when he went through each proposed unit and
5	showed how and then section 15 and showed how
6	that V-F had higher working interest in each unit.
7	You're familiar with that?
8	A I know there's an argument about it. I kind
9	of got lost in the weeds, so I'll take y'all's word
10	for who owns most of it. I can just tell you that
11	geologically it's the best looking section around in
12	the Second Bone Spring.
13	Q So it would it be fair to say that if you
14	had a unit in which V-F as a party had higher working
15	interest in that unit, it would be appropriate for
16	that party to develop that interest in that unit at
17	the geologic
18	A All all things being considered, that
19	sounds like a reasonable statement.
20	MR. SAVAGE: That's all I have,
21	Mr. Hearing Examiner.
22	THE HEARING EXAMINER: Thank you.
23	Okay. Thank you for appearing in
24	person.
25	All right. Let's talk about how we're
	Page 232

1	going to proceed with these cases from here on in.
2	So, Ms. Vance, it's your cases that
3	originally caused the notice issue which require us to
4	go to February 13th. First of all, do we need to do
5	anything between now and February 13 in your mind?
6	MS. VANCE: Yeah, yeah, yeah. That's
7	right. We'll provide updated revised hearing packet
8	once we get our notice of publication and our tracking
9	report with the notice information, with the notice
10	that went out for the cases that were just filed in
11	January.
12	THE HEARING EXAMINER: Okay. So right
13	now you have two packets. You have basically an
14	amended exhibit packet and you have a rebuttal packet.
15	MS. VANCE: Correct. We did not file
16	the rebuttal packet yet. We just circulated that, and
17	we will file after the hearing today.
18	THE HEARING EXAMINER: Okay. We were
19	talking about that. I think we sent an email to your
20	assistant asking the assistant to file them properly,
21	but if they didn't, you'll do it today sometime.
22	Okay. So this updated exhibit packet will be
23	basically a second amended exhibit packet.
24	MS. VANCE: Correct.
25	THE HEARING EXAMINER: Okay. With
	Page 233

1	cover letter to describe both revisions, because we're
2	going to toss out the first amended.
3	MS. VANCE: Absolutely.
4	THE HEARING EXAMINER: Okay. And it
5	will have updated notice exhibits?
6	MS. VANCE: Yes.
7	THE HEARING EXAMINER: Okay. And an
8	affidavit?
9	MS. VANCE: Yes.
10	THE HEARING EXAMINER: From you?
11	MS. VANCE: Yes.
12	THE HEARING EXAMINER: Okay.
13	MS. VANCE: So updated self-affirmed
14	statement, and then the notice for cases 25145 through
15	25148.
16	THE HEARING EXAMINER: Right. I'm just
17	making some notes here. When do you think you will
18	file that?
19	MS. VANCE: I would have to talk with
20	my legal assistant to see when that went out and when
21	she expects to get things back. Sometimes it's I
22	mean, who knows with the newspaper. We're sort of at
23	their mercy.
24	THE HEARING EXAMINER: Sure. So if
25	you're talking about the newspaper, then you're
	Page 234
	rage 234

1	talking at least ten days before February 13th.
2	MS. VANCE: Yes. Correct.
3	THE HEARING EXAMINER: Okay. So then
4	at least a week before February 13 you'll be filing
5	the second amended packet. Right?
6	MS. VANCE: That sounds right.
7	THE HEARING EXAMINER: Because that
8	will give you plenty of time to get the affidavit from
9	the newspaper.
10	MS. VANCE: That sounds right.
11	Correct.
12	THE HEARING EXAMINER: Mr. Rankin, you
13	don't see anything wrong with that, do you?
14	MR. RANKIN: I don't. I don't.
15	THE HEARING EXAMINER: Okay. So then
16	we'll give you a deadline of February 6. The rules
17	themselves give you a deadline of well, I think it
18	would be the prehearing order that would control here,
19	so that would be four working days before the 13th,
20	but I'm going to give you a deadline of the 6th. That
21	way it gives Mr. Savage and Ms. Luck time to review
22	this exhibits. Okay.
23	Are there going to be any other
24	amendments that you heard today that require changing?
25	MS. VANCE: Just to put V-F's counsel

1	at ease, we'll provide the updated C-102s that show
2	that the surveyor did review the C-102s.
3	THE HEARING EXAMINER: Okay. Perfect.
4	When you say "updated C-02s" [sic], because I know
5	that there were some questions about the C-102s, how
6	they seemed to be, I guess, and I'm paraphrasing, in
7	preliminary state. They weren't sort of
8	MS. VANCE: The ones that I'm sorry,
9	I didn't mean to cut you off. Yes. The ones we filed
10	were the preliminary ones, but actual C-102s that have
11	been signed off by a surveyor were submitted with the
12	APD, and we're happy to file those.
13	THE HEARING EXAMINER: Okay. Great.
14	So those are two major changes from the current
15	amended exhibit packet.
16	MS. VANCE: Yes.
17	THE HEARING EXAMINER: The notice and
18	the C-102s.
19	MS. VANCE: Yes.
20	THE HEARING EXAMINER: Okay. Great.
21	Which witnesses will you have on February 13?
22	MS. VANCE: We will have all of our
23	witnesses available, but Travis Macha, who is our
24	landman, will be available for cross-examination since
25	he wasn't able to be here today.

1	THE HEARING EXAMINER: And his name is
2	familiar. I know he's been qualified as an expert
3	before.
4	MS. VANCE: Correct.
5	THE HEARING EXAMINER: As I mentioned,
6	we will call these set of cases last on the docket.
7	It will be listed as last on the February 13th hearing
8	by affidavit docket. That way we can run until the
9	end of the day if we need to. Hopefully, we won't.
10	MS. VANCE: That works for us. Thank
11	you.
12	THE HEARING EXAMINER: Yes. Witness.
13	Okay. Is there anything else that you
14	feel you need to do to be prepared for the February 13
15	hearing?
16	MS. VANCE: Just to confirm that it'll
17	be a well, they're going to do cross. Other than
18	cross-examination of Mr. Macha, it's just going to be
19	rebuttal. Correct?
20	THE HEARING EXAMINER: I feel like
21	we've been doing rebuttal throughout the day today.
22	MS. VANCE: That's fair.
23	THE HEARING EXAMINER: I've heard
24	parties discuss but anything is fair game.
25	MS. VANCE: Okay.

1	THE HEARING EXAMINER: If a rebuttal
2	exhibit comes up on the 13th, it's fair game,
3	MS. VANCE: That sounds that works.
4	THE HEARING EXAMINER: Does that answer
5	your question?
6	MS. VANCE: Yes.
7	THE HEARING EXAMINER: All right. Very
8	good.
9	Mr. Savage, so first what do you need
10	to file on or before February 6, which is also your
11	deadline, for your exhibits?
12	MR. SAVAGE: So we have
13	MR. MCCLURE: Your microphone's turned
14	off, Mr. Savage.
15	MR. SAVAGE: Yes, sir. We have some
16	revisions to do on the working interests to updated
17	that, and then we have, I think, some ownership lists
18	that we need to revise. So we have an amended hearing
19	packet that would be due for the Division.
20	And then, if it's possible, if we can
21	get our reservoir engineer in and have him provide
22	some exhibits, we would be interested in submitting
23	those to the Division for review to address certain
24	reservoir engineering questions that have been raised
25	today. Is that something that would be allowable

to
THE HEARING EXAMINER: Okay. Let's
deal first with the first question I asked you, then
let's deal with that subject separately.
MR. SAVAGE: Okay.
THE HEARING EXAMINER: So when it came
to the revised exhibits, you're going to have
revisions to your working interest owners lists and
your ownership lists. Those are two separate?
MR. SAVAGE: They can yeah, they
overlap. They overlap.
THE HEARING EXAMINER: They overlap,
but they're also separate.
MR. SAVAGE: There's separate stuff in
there.
THE HEARING EXAMINER: Are those the
only other corrections you're making?
MR. SAVAGE: No. I think we need to
address some clarifications on that state tract that's
unleased. You know, we had no intention to pool that.
That that needs to be clarified. We need a revision
that would give the pathway if the Division decided
in our favor, the pathway that the Division will be
looking at to make sure that that is included in the
unit.

1	THE HEARING EXAMINER: All right. Let
2	me go to Ms. Vance first to find out if there's any
3	objections to any of these things.
4	MS. VANCE: Yes. So the prehearing
5	order specifically states when testimony is due. Now,
6	it's fine if Mr. Savage wants to present reservoir
7	engineering for rebuttal, but as far as including new
8	testimony, that seems like it's outside of what's been
9	allowed in the prehearing order and I yeah.
10	THE HEARING EXAMINER: Okay. All
11	right. So, Mr. Savage, there's an objection to
12	something that I haven't even written down yet, which
13	is the second issue that you brought up. I'm still
14	dealing with making sure because I don't want there
15	to be any confusion.
16	MR. SAVAGE: Yes, sir.
17	THE HEARING EXAMINER: Because when we
18	come back on the 13th, all the proper evidence needs
19	to be in the record so that we can close up the
20	hearing, if possible, on that day and let the Division
21	make a decision.
22	MR. SAVAGE: If I could just point out,
23	for example, there are certain exceptions that can be
24	made. Mr. Macha, the prehearing order required him to
25	be here and to present, and he was not able to. The

1	OCD would have benefited from his presentation, but
2	now we have to delay it and have it at a different
3	date. I think given the complexity of this case,
4	especially in that Third Bone Spring regarding the
5	depth severances, I think the OCD could benefit from
6	additional reservoir data engineering data.
7	THE HEARING EXAMINER: Okay. Let me
8	deal with what you said because you keep mixing things
9	together and I'm trying to be
10	MR. SAVAGE: Yes, sir. I
11	THE HEARING EXAMINER: to be clear
12	about things and you keep mixing things in.
13	MR. SAVAGE: That's how my mind works.
14	THE HEARING EXAMINER: Well, mine
15	doesn't, and so that's why we're
16	MR. SAVAGE: I know. I'm trying to
17	reciprocate, trying to adapt.
18	THE HEARING EXAMINER: That's nice.
19	So anyway, back to the exhibits, and
20	then we'll deal with the witnesses in just a moment.
21	We talked about revisions to working interest owners.
22	We talked about separate and overlapping ownership
23	interests that you need to fix. We talked about your
24	exhibits needing to deal with the state tract that
25	you're not seeking to pool. Okay?

	· ·
1	MR. SAVAGE: Yes, sir.
2	THE HEARING EXAMINER: So that's going
3	to be your amended exhibit packet. Now, my question
4	to you is, in this last go-around a week ago, our
5	hearing clerk went crazy because you filed a bunch of
6	documents incorrectly. Now, we can't do that again.
7	You have to file the correct document package for each
8	case that's yours.
9	MR. SAVAGE: Yes, sir. And I apologize
10	for that. Since we had the individual hearing packets
11	for the case, but they also addressed all the
12	others and, you know, it was 1:00 a.m. at night and we
13	were trying to figure out the best way to do that, and
14	we erred on the side of filing more, unfortunately.
15	And I've talked to Ms. Tschantz about that. But
16	that's
17	THE HEARING EXAMINER: Thank you for
18	apologizing. So this won't happen, then, for this
19	next round.
20	MR. SAVAGE: So for example
21	THE HEARING EXAMINER: Yes.
22	MR. SAVAGE: I'd like to clarify. So I
23	filed objections, and it was in all the cases.
24	THE HEARING EXAMINER: I saw that.
25	MR. SAVAGE: Okay. And I had talked to
	D 040
	Page 242

1	my assistant Kaiya, and I was like do we file these in
2	all the cases or and then we decided yes. But we
3	were concerned. We were like, we don't want to
4	overload Ms. Tschantz by, you know, filing objections
5	in cases where the objections may not apply.
6	THE HEARING EXAMINER: Right.
7	MR. SAVAGE: So as I understand this,
8	if we do a pleading and in the caption we have all the
9	cases that we believe
10	THE HEARING EXAMINER: Right.
11	MR. SAVAGE: it would be appropriate
12	to file those in all. But if we have a hearing packet
13	that is specific to
14	THE HEARING EXAMINER: Right.
15	MR. SAVAGE: Yes. Thank you.
16	THE HEARING EXAMINER: Then it goes
17	into that case.
18	MR. SAVAGE: Yes.
19	THE HEARING EXAMINER: I don't want to
20	forget that Mr. McClure has some asks of, I think,
21	both parties. So we'll get to that in just a minute.
22	But we need to clarify this.
23	So on or before February 6 by close of
24	business, Mr. Savage
25	MR. SAVAGE: Yes.

1	THE HEARING EXAMINER: you will file
2	an amended exhibit packet in each of your cases as to
3	the three issues we've already discussed.
4	MR. SAVAGE: Yes.
5	THE HEARING EXAMINER: Okay. Now,
6	let's talk about the witness issue. Now, you want to
7	bring your reservoir engineer, and why wasn't that
8	reservoir engineer here today?
9	MR. SAVAGE: Well, as I understand, V-F
10	inquired about it and it was just not possible within
11	the timeframe to do that, but I'm not sure
12	THE HEARING EXAMINER: Hold on. That's
13	not an answer. It's definitely not an answer. So
14	what do you mean there wasn't time to do it? What do
15	you mean by that?
16	MR. SAVAGE: Well, as I understand, the
17	initial inquiry with the reservoir engineer was at a
18	time when he could not provide the exhibits in a
19	timely manner, and I believe that was perhaps
20	January 14th. I remember the date. Okay. So then I
21	guess the plans were to go forward with the landman
22	and geology. And then, when we saw the extent of the
23	reservoir engineering exhibits from PR, you know, I
24	brought up that, you know, it really would have
25	benefited the Division to have some information from

1	our side on the reservoir engineering, and I asked is
2	it too late to do that. You know, we don't know if it
3	would be possible, but we would like the opportunity,
4	if that is possible, to do that.
5	THE HEARING EXAMINER: Okay. You
6	didn't really answer my question, but I get the point.
7	So I'll tell you what we'll do. There is an objection
8	by Ms. Vance, and I think she's correct that, you
9	know, you had a deadline, there was an evidentiary
10	deadline, there's an order. We're not going to ignore
11	the order. However, you can frame your reservoir
12	engineer exhibits and testimony to be rebuttal to what
13	you heard here today or even to their initial exhibit
14	packet, because that was really what it would be
15	rebuttal to. You also have the benefit of a whole
16	day's worth of testimony, and so do your witnesses.
17	You can file a rebuttal exhibit packet for your
18	reservoir engineer and have him available for
19	cross-examination on the 13th of February. Does that
20	seem fair to you?
21	MR. SAVAGE: That seems like a good
22	splitting of Solomon's baby. I thank you. It's
23	reasonable.
24	THE HEARING EXAMINER: Okay. Now, you
25	were mentioning their witness. Now, their witness

1	filed testimony, they filed exhibits. That witness,
2	the landman, Mr. Macha, was not here for
3	cross-examination, but you'll have a full and fair
4	opportunity. So I'm not sure how that comports with
5	your situation. So we'll leave that part alone since
6	that's not really an objection.
7	Okay. Now, we've dealt with the
8	witness issue. So you're going to have Mr. Macha and
9	you're going to have what is his name? Do you know
10	the name of your reservoir engineer?
11	MR. SAVAGE: I do not.
12	THE HEARING EXAMINER: Okay. We're
13	just going to call him witness X.
14	MR. SAVAGE: Mr. X.
15	THE HEARING EXAMINER: Yes. Mr. X.
16	Reservoir engineer, rebuttal only. Okay. Very good.
17	And obviously you'll have an
18	opportunity if you see something that you don't
19	feel is rebuttal you can make an objection. I'm
20	reminding you, though, that it says in the prehearing
21	order evidentiary objections must be made 48 hours in
22	advance. This is going to be filed no later than
23	February 6, giving you a whole week to review the
24	testimony and to make an objection if you feel it's
25	necessary for that reason.

1	MS. VANCE: Yes. And I just want to
2	confirm that we can also have rebuttal to anything.
3	THE HEARING EXAMINER: Of course.
4	That's the way it rolls here.
5	All right. Now, Mr. McClure, you have
6	a list for each party. Why don't you start with
7	Permian? Or do you have nothing for Permian?
8	MR. MCCLURE: Thank you, Mr. Hearing
9	Examiner. Yes, I do for Permian.
10	Ms. Vance, if we could get a gun-barrel
11	diagram created and submitted with your amended
12	exhibit packet. In addition to that, if we could
13	amend one of the cross-sections to include a depiction
14	of the depth severance or add a new cross-section to
15	show it. I guess it's your discretion there.
16	Additionally, if we could be prepared
17	to either testify about it or provide some sort of
18	documentation regarding it, and that is the joint
19	operating agreement or the status thereof of
20	Occidental signing on with Permian. Do you understand
21	everything I was asking Ms. Vance?
22	MS. VANCE: Yes.
23	THE HEARING EXAMINER: Perfect. Thank
24	you, Mr. McClure.
25	And now for Mr. Savage?

1	MR. MCCLURE: Yeah. Mr. Savage, on all
2	three pooling administrative checklists, are you
3	familiar with the field that references depth
4	severance?
5	MR. SAVAGE: Yes, sir.
6	MR. MCCLURE: I believe on two of the
7	cases you actually do say no, but I believe on the
8	other three cases you have some of them got like
9	miscellaneous stuff wrote in there, some's got like
10	half a sentence wrote in there. If we can clarify
11	for each of them that does not say no, if you can
12	change that to no based upon Mr. Shaw's testimony
13	today at least.
14	MR. SAVAGE: Yes. And as I explained,
15	there's no depth severance within the Third Bone
16	Spring interval, so that would be a no, even though
17	there's a depth severance between the Second and the
18	Third, possibly.
19	MR. MCCLURE: Well, according to
20	Mr. Shaw there isn't
21	MR. SAVAGE: Right. That's right. He
22	did say that, yes. Okay. So
23	MR. MCCLURE: Yeah. So if you could
24	clarify that so there can be no mistake, I guess, that
25	you're not trying to say there isn't a depth severance

1	in what you're asking to pool, but that there is no
2	depths severance in the Bone Spring.
3	MR. SAVAGE: Yes, sir. That's great.
4	MR. MCCLURE: And I think a simple no
5	should suffice for that.
6	MR. SAVAGE: Okay.
7	MR. MCCLURE: In addition to that, it
8	sounds like you're already amending your Exhibit A-3.
9	MR. SAVAGE: Yes.
10	MR. MCCLURE: Was it your intent to
11	clear up the highlighting question, I guess?
12	MR. SAVAGE: Yes. And we went the
13	extra mile to list specifically the parties being
14	pooled, and we'll clarify that, and we'll clarify the
15	highlight.
16	MR. MCCLURE: Thank you, Mr. Savage.
17	That's all I had.
18	THE HEARING EXAMINER: And,
19	Mr. McClure, do you have any exhibits that you want
20	from Ms. Luck's client?
21	MR. MCCLURE: Well, I believe
22	Ms. Luck I mean it would be nice if Ms. Luck did
23	provide all the interests of Ms. Beall, but I'm going
24	to assume she already intends upon that.
25	THE HEARING EXAMINER: I don't want to

assume anything.

2.1

2.4

MR. MCCLURE: Well, I mean, it would be nice if Ms. Luck provided us with all the interest that Ms. Beall testifies she has, I guess.

MS. LUCK: Yeah. Absolutely. I'll provide that. And what I was planning on asking to file would be a motion related to the prior case where her interests were pooled and ask the Division for an allocation formula as between where those interests were pooled in the upper portions of the Bone Spring and the lower portion of Bone Spring where we feel that there's communication and a common source of production that affects her interest.

So we're happy to provide a reflection of her interests, but it's my understanding her interests were previously pooled in the case referenced by Ms. Vance, the 24939. I might have misquoted that number. But the point being that it was already pooled by an order issued in December, so we really need an allocation formula as between that portion of the Bone Spring where her interest is pooled and this lower portion of the Bone Spring where there may be communication. And that's why I think that we're going to get the reservoir engineer question.

THE HEARING EXAMINER: Does that
request from the Division require, A, the Division to
award the compulsory pooling order to one or the other
parties?
MS. LUCK: No. But I do think it has
bearing on whichever operator is chosen by the
Division, and we would ask that the Division recognize
that there may be some communication in the Bone
Spring here that affects her interest in the upper
Bone Spring.
THE HEARING EXAMINER: Mr. McClure,
your thoughts?
MR. MCCLURE: Well, Ms. Beall's
interest, is it only in section 14? Is that correct,
Ms. Luck?
MS. LUCK: I believe that's correct,
but I will confirm with her in writing with the
Division, if I may.
MR. MCCLURE: Assuming that's so, then
it only affects Permian's cases, then. If so. Is
that correct?
MS. LUCK: That would be correct, yes.
But I would still just like to confirm with her that
her interests are only in section 14 and I'm not
excluding her from any other interests that she may
Page 251

1	have in 15 or 16.
2	THE HEARING EXAMINER: Okay. So
3	Ms. Luck, I'm going to order that you file a notice of
4	ownership interest in all of these cases. Well, the
5	cases that affect or possibly affect your client's
6	ownership interest. Which cases are those? Just the
7	new ones?
8	MS. LUCK: Yes, Mr. Hearing Examiner.
9	The
10	THE HEARING EXAMINER: Forty-five
11	through 48?
12	MS. LUCK: Yes, sir.
13	THE HEARING EXAMINER: Okay. So I'm
14	ordering you that by February 6th, 5 p.m., you'll file
15	a notice of ownership interest in those four cases.
16	And if you want something from the Division and you
17	want to file a motion, file a motion. But I don't
18	know that we're going to deal with it at the hearing.
19	MS. LUCK: And that's fine, but I would
20	just like to preserve my client's rights here.
21	THE HEARING EXAMINER: That's
22	understandable.
23	Okay. Mr. McClure, anything else?
24	MR. MCCLURE: Nothing from me,
25	Mr. Hearing Examiner.
- 1	

1	THE HEARING EXAMINER: All right. Now,
2	Mr. McClure, when this hearing does end, and I assume
3	it will be the February 13, are you going to want any
4	post-hearing submissions?
5	MR. MCCLURE: No. I don't want any
6	post-hearing submissions.
7	THE HEARING EXAMINER: Perfect. Okay.
8	So no closing arguments, no proposed findings of fact
9	or conclusions of law?
10	MR. MCCLURE: Well, considering they've
11	already had several weeks here, I hope they're able to
12	provide us all their arguments, I guess, on the 13th.
13	THE HEARING EXAMINER: Well, when you
14	say there "they're arguments," normally we don't do
15	closing arguments. Are you going to want verbal
16	closing arguments?
17	MR. MCCLURE: I apologize, Mr. Hearing
18	Examiner. I mean I think they should be able to get
19	their cases wrapped up, how many shots at it we're
20	getting here. So I don't believe we need closing
21	arguments is what I'm trying to say.
22	THE HEARING EXAMINER: Yeah. I'm just
23	asking what would be helpful for you once the hearing
24	closes and you have to make a decision. I just want
25	whatever you think will be helpful.

1	MR. MCCLURE: I don't think I'll need
2	anything.
3	THE HEARING EXAMINER: Okay. Perfect.
4	Thank you. That's what I want to know.
5	Okay. Was there something else,
6	Ms. Vance?
7	MS. VANCE: Yeah. I just wanted to
8	clarify that for rebuttal it's going to be live
9	witnesses.
10	THE HEARING EXAMINER: It can be.
11	Sure.
12	MS. VANCE: Okay.
13	THE HEARING EXAMINER: I mean, rebuttal
14	can be just exhibits if you want them to be, but I
15	think it has more weight if you have a live witness.
16	MS. VANCE: That's fine. Just wanted
17	to confirm. Thank you.
18	THE HEARING EXAMINER: Yeah.
19	Anything else, Mr. Savage?
20	MR. SAVAGE: Yes, Mr. Hearing Examiner.
21	It seems like it would benefit the Division to have
22	oral overview of some, you know, arguments that should
23	be in the forefront.
24	THE HEARING EXAMINER: Okay. Why don't
25	we do this? We'll give each party 15 minutes at the
	5 251
	Page 254

1	end of the hearing to make an oral closing argument.
2	That way you can sum up your case and let the
3	technical examiner and myself know what you think is
4	important and why you win.
5	MS. VANCE: I think that sounds great.
6	THE HEARING EXAMINER: Mr. McClure, you
7	okay with that?
8	MR. MCCLURE: Yeah. I'm fine with
9	that, Mr. Hearing Examiner.
10	THE HEARING EXAMINER: Okay. I don't
11	hear anything else. So we are off the record for now.
12	We are on recess in these cases until February 13.
13	Thank you.
14	(Whereupon, at 3:20 p.m., the
15	proceeding was concluded.)
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
	Page 255

#### 1 CERTIFICATE 2 I, JAMES COGSWELL, the officer before whom 3 the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing 4 proceedings, prior to testifying, were duly sworn; 5 that the proceedings were recorded by me and 6 7 thereafter reduced to typewriting by a qualified 8 transcriptionist; that said digital audio recording of 9 said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am 10 11 neither counsel for, related to, nor employed by any 12 of the parties to the action in which this was taken; 13 and, further, that I am not a relative or employee of 14 any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the 15 16 outcome of this action. February 10, 2025 17 JAMES COGSWELL 18 19 Notary Public in and for the 20 State of New Mexico 21 22 23 24 2.5

#### 1 CERTIFICATE OF TRANSCRIBER I, MARY ANN BURKE, do hereby certify that 2 3 this transcript was prepared from the digital audio 4 recording of the foregoing proceeding, that said transcript is a true and accurate record of the 5 proceedings to the best of my knowledge, skills, and 6 7 ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in 8 which this was taken; and, further, that I am not a 9 relative or employee of any counsel or attorney 10 11 employed by the parties hereto, nor financially or otherwise interested in the outcome of this action. 12 February 10, 2025 13 Mary and Burk 14 15 MARY ANN BURKE 16 17 18 19 20 2.1 22 23 24 25

Page 257

&	217:20,23	12,985,967	59:1 60:3 61:5
	220:7 256:16	149:22	61:5,10,10
<b>&amp;</b> 2:6,15 15:4	257:13	<b>12.5</b> 120:18	76:8,24 77:24
20:24 22:11,13	<b>10,000</b> 73:12	<b>12.</b> 3 120.18 <b>121</b> 4:21	108:12,19
39:4 180:3,15	74:21 153:1,1	149:16	108.12,17
0	<b>10.6</b> 162:17	<b>122</b> 149:16	142:5,7 161:14
<b>02s</b> 236:4	<b>10.7.</b> 162:17	<b>122</b> 149:10 <b>123</b> 149:17	171:11,11,12
1	<b>100.7.</b> 102.17	<b>124</b> 149:17	174:9,14 180:3
1 2:7 6:6,25	<b>101</b> 4:14	<b>126</b> 228:12	180:10 251:14
7:10,17 8:15	<b>102</b> 4:17 6:6	<b>13</b> 14:18 17:16	251:24
8:22 9:6,21	7:17 9:6 10:13	17:18 29:3,4	<b>14.2</b> 163:25
10:6,13 11:10	11:24 198:12	31:22 33:1,10	164:4,7
11:17,24 12:17	198:21	34:1 36:21	<b>145</b> 27:9 86:13
12:24 14:5	<b>102s</b> 196:9,11	61:5,10,11	<b>148</b> 27:9
15:19 24:22	196:15 197:2	108:24 109:1	<b>14th</b> 244:20
28:4 37:17,17	198:8,18,19	147:1,2,10	<b>15</b> 6:15,21 8:11
37:18,22,22,23	199:1 200:14	148:12,16	11:6 52:1
38:2,2,3,7,7,8	200:24 201:3	233:5 235:4	56:24 59:1
38:12,12,13	202:5 208:5,6	236:21 237:14	60:3 61:5,10
44:6 55:7	236:1,2,5,10,18	253:3 255:12	77:1 90:2
70:20 76:8,12	<b>104</b> 4:15	<b>131</b> 149:17	92:16 108:3,5
76:16,23,25	<b>107</b> 4:4	<b>132</b> 149:17	108:8,11,18,19
77:5,9,11,13	<b>10:30</b> 95:4	<b>133</b> 149:17	108:20 109:2
92:18 93:1,16	<b>10:35</b> 95:5	<b>134</b> 149:17	109:11 116:24
94:11,23 116:9	<b>10:36</b> 95:9	<b>13th</b> 18:15	117:1,4 118:4
118:3 124:13	<b>11</b> 14:14	33:23 45:15	119:23 120:3,7
152:9,12,24	130:22	46:4,7 47:8	120:11,17
153:5,10	110 2:7	179:8 188:20	139:18,18
161:12 163:8	<b>113</b> 172:18	233:4 235:1,19	143:17,18,21
175:10 190:5,9	179:18	237:7 238:2	154:1,6,8,12,14
196:12,13	115 4:20	240:18 245:19	158:11,12
210:1 216:18	<b>12</b> 14:16 24:16	253:12	161:14,15,23
<b>1/14/25</b> 184:21	12,441,256	<b>14</b> 14:20 24:14	162:11,24
<b>10</b> 14:12 19:12	149:20	36:11 42:2	163:22 164:25
162:17 216:19		56:24 58:8,13	165:17 167:6,9

## [15 - 24942]

167:12 168:13	<b>160</b> 28:15	185:7,12,18	<b>213h</b> 10:22
174:25 175:6	<b>168</b> 4:22	190:5,9 196:14	12:11
176:16 192:6	<b>17</b> 229:19	231:11,11	<b>214</b> 2:16
192:11,19	<b>18</b> 193:22,24	<b>2.89</b> 79:17	<b>214h</b> 9:15
204:13 206:17	<b>181</b> 4:23	2.895834	<b>22</b> 116:1
207:15 226:7	<b>1880s</b> 189:24	204:25	<b>220</b> 1:20
226:10,17	<b>189</b> 4:20	<b>20</b> 17:7 19:11	<b>221</b> 143:18
227:1,5,11	<b>19</b> 130:14	125:24	<b>221h</b> 119:23
232:5 252:1	<b>192</b> 40:25 42:7	<b>200</b> 67:4	<b>222</b> 196:22
254:25	49:25 65:14	<b>2000</b> 206:20	<b>222h</b> 120:3
<b>150</b> 65:14	71:12 106:21	<b>2010</b> 222:10	<b>223h</b> 120:7,11
<b>156</b> 49:25	<b>1960</b> 223:9	<b>2020</b> 72:18	<b>225</b> 67:4
<b>158</b> 72:16	<b>1:00</b> 242:12	76:13,17	<b>228</b> 5:6
<b>159</b> 71:12	<b>1:04</b> 157:7	<b>2023</b> 108:3,5	<b>22nd</b> 40:4
<b>16</b> 6:15 58:8,14	<b>1a</b> 13:7 42:1	146:25	<b>23.9375</b> 119:25
59:1 60:3 77:1	<b>1b</b> 13:9	<b>2024</b> 24:17	120:5 205:1,3
77:17 108:2,5	<b>1c</b> 13:11 42:2	108:6 130:14	<b>231h</b> 119:23
108:8,11 109:2	<b>1h</b> 6:22 8:12	149:21 199:21	143:18
109:10,11	11:7	<b>2025</b> 1:14 95:9	<b>232</b> 5:4
119:23 120:3,7	2	147:6 190:23	<b>232h</b> 120:3
120:11,17	<b>2</b> 6:7 7:4,11,18	256:16 257:13	<b>234h</b> 120:17
132:14 138:24	8:16,23 9:7,22	<b>2026</b> 142:11	143:21 158:11
139:8 142:8,9	10:7,14 11:11	<b>205</b> 4:22	175:1
143:17,18,21	11:18,25 12:18	<b>206</b> 4:21	<b>24</b> 149:18
149:18,21	12:25 13:14	<b>209</b> 5:4	150:23
154:3,5 158:3	15:22 42:2	<b>21</b> 147:6	<b>24939</b> 25:25
158:11,12	44:7 60:18,20	<b>21.6667</b> 164:14	26:9 27:4,17
161:15 174:25	60:21,22 61:1	164:20	28:15 30:17,20
183:9 192:6,10	61:6,9 71:5,5	<b>21.6667.</b> 163:25	87:14 250:17
195:13 226:14	77:9,22 78:6	164:8	<b>24941</b> 1:9
226:19 227:11	92:18 93:1,16	<b>21.667.</b> 164:4	16:18 23:8
252:1	94:11,24	<b>210</b> 5:5	29:17 177:8
<b>16-15</b> 8:5 9:15	108:25 117:2	<b>211h</b> 6:15	<b>24942</b> 1:9
10:22 12:11	124:14 152:14	<b>212h</b> 8:5	16:18 29:17
	153:11 164:25		177:9
	155.11 101.25		

#### [24994 - 38/38]

<b>24994</b> 1:9 6:3	38:6 115:14	<b>29</b> 138:4,6	<b>32</b> 145:19
7:3 16:18	116:20 120:6	<b>2nd</b> 36:1	32.453125
34:25 37:16	176:1,4,8	3	120:9,13 205:5
115:14 116:20	177:11 205:3	<b>3</b> 6:8 7:5,12,19	32.895834
119:22 126:8	209:13 214:20	8:17,24 9:8,23	119:24 120:4
127:11,14	<b>25117</b> 1:10	10:8,15 11:12	205:2
128:15 130:13	11:21 12:3	11:19 12:4,19	<b>320</b> 143:15
145:15,16,21	13:3 16:18	13:4,17 37:18	159:6
177:16 183:7	34:25 38:11	37:23 38:3,8	<b>320s</b> 28:16
204:25 207:8	115:14 116:21	38:13 60:22	<b>32311</b> 256:17
209:12	120:10 176:2,4	72:10,15,23	<b>33</b> 145:20
<b>24995</b> 1:10	177:11 205:5	80:3 87:5	<b>350</b> 216:11
7:14 8:3 16:18	209:13	116:15 117:10	<b>361</b> 3:7
34:25 37:21	<b>25145</b> 1:11	118:14 119:1,3	<b>37/37</b> 6:5,6,7,9
115:14 116:20	16:19,22 21:15	124:14 126:14	6:11,13,16,18
120:2 130:21	24:5 25:12	128:4 132:11	6:20,22,24,25
130:22 131:12	26:14 28:16	133:11,11	7:4,5,6,7,9,10
145:15,21	29:18 32:17,21	135:21,25	7:11,12,16,17
177:15 183:7	173:8 234:14	137:3,21 150:1	7:18,20,22,24
205:2 207:8	<b>25146</b> 1:11	151:17 160:13	8:6,8,10,12,14
209:12	173:8	161:3,8 163:3	8:15,16,17,18
<b>24998</b> 194:6	<b>25147</b> 1:11	168:7 172:15	8:19,20,22,23
<b>25115</b> 1:10 9:3	173:8	173:2 190:5,6	8:24
10:3 16:18	<b>25148</b> 1:11	191:3 194:5	<b>38/38</b> 9:5,6,7,9
34:25 38:1	16:22 21:15	202:24 213:7	9:11,13,16,18
115:14 116:20	24:5 25:13	214:20 218:6	9:20,21,22,23
120:16 131:19	26:14 29:19	249:8	9:24,25 10:5,6
143:20 158:10	173:9 234:15	<b>30</b> 24:17 34:6	10:7,8,12,13,14
174:20,23	<b>26</b> 132:18	125:24 126:14	10:16,18,20,23
178:2 181:25	<b>26538</b> 257:14	201:22 202:1	10:25 11:5,7,9
182:6 209:12	<b>27</b> 137:10	201.22 202.1	11:10,11,12,13
213:3	<b>27th</b> 40:19	<b>300</b> 80:14	11:14,16,17,18
<b>25116</b> 1:10	<b>28</b> 1:14 95:9	<b>31</b> 142:11	11:19,23,24,25
10:10 11:3	<b>28th</b> 16:3 157:7	<b>3171.12</b> 14:4	12:5,7,9,12,14
16:18 34:25		<b>31/1.12</b> 14.4	12:16,17,18,19

## [38/38 - 8:59]

12 20 21 22 24	47 16 10		<b>501</b> 170 10
12:20,21,23,24	<b>47</b> 16:19	6	<b>701</b> 172:19
12:25 13:4	<b>48</b> 16:19 32:17	<b>6</b> 6:14 8:4 9:14	179:19
<b>382</b> 172:17	32:22 246:21	10:21 12:10	<b>7011524</b> 1:23
179:17	252:11	14:4 55:8	<b>71</b> 172:17
<b>385-4401</b> 2:19	<b>483</b> 3:4	60:19,21 65:10	179:17
<b>3:20</b> 255:14	<b>4s</b> 169:7	65:24 66:24	<b>72</b> 4:16
<b>3mg</b> 206:21	5	70:20 78:9	<b>73</b> 149:25
<b>3</b> s 168:16	<b>5</b> 6:12 7:7,23	116:11,14	<b>74</b> 132:18
4	8:19 9:12,25	220:7 224:14	150:2
4 6:10 7:6,21	10:19 11:14	224:18,23	<b>75</b> 150:2
8:18 9:10,24	12:8,21 13:22	235:16 238:10	<b>7500</b> 153:19
10:17 11:13	37:17,22 38:2	243:23 246:23	<b>78</b> 162:15
12:6,20 13:20	38:7,12 60:19	<b>6-150</b> 65:21	<b>79</b> 162:15
36:7 71:4	75:5 94:25	<b>60</b> 161:22	8
85:21 169:8	116:9 146:24	162:2,12,19	<b>8</b> 6:19 8:9 11:4
170:18 173:13	149:3 151:7,8	220:18,20,22	14:8 65:20
182:14 202:23	151:17 191:4	221:10,15	147:10 148:17
<b>40</b> 34:7 117:2	199:21 202:23	<b>64</b> 4:10 223:14	220:3,4,5,8,17
<b>42</b> 23:8	210:1 216:18	225:4,9	221:12,14
42.480468	252:14	<b>640</b> 165:8	223:15 224:17
120:19	<b>50</b> 76:20	<b>648-1973</b> 3:7	225:1,9
<b>42/42</b> 13:8,10	154:10,17,19	<b>66</b> 4:11	<b>81</b> 72:25
13:13,16,19,21	162:18 213:14	<b>68</b> 4:8,9	<b>837</b> 159:3
13:24 14:5,7,9	213:18 214:24	<b>69</b> 4:13	192:14
14:11,13,15,17	215:6,8,24	<b>6th</b> 235:20	<b>838</b> 159:2
14:19,21,25	<b>505</b> 2:11	252:14	192:13
15:6,8,10,13,15	<b>51</b> 4:3	7	<b>85</b> 162:15
15:16	<b>513.94</b> 78:10	<b>7</b> 6:17 8:7 9:17	<b>86</b> 4:18
<b>43</b> 14:4	<b>514,000</b> 78:17	10:24 12:13	<b>87501</b> 2:8,17
44.458334	<b>529,000</b> 78:18	14:6 38:2,12	<b>87505</b> 1:21
120:8,12 205:4	<b>529.27</b> 78:11	65:18 165:6	<b>87571</b> 3:5
<b>44/44</b> 15:21,22	<b>53</b> 4:8	173:17	<b>89</b> 4:13 126:17
<b>45</b> 86:11	<b>54</b> 149:16	<b>7,500</b> 152:25	187:25
<b>46</b> 16:19	<b>56</b> 4:9 131:23	<b>7.4375</b> 118:21	<b>8:59</b> 1:15
		110.21	

## [8th - actual]

8th 24:25	a	190:15 194:13	acquire 108:24
9	<b>a.m.</b> 1:15 16:3	195:11 203:14	158:18 159:24
9 6:21 8:11	95:9 242:12	234:3 250:5	183:8
11:6 14:10	<b>abadie</b> 2:15	accept 170:4	acquired 160:2
16:3 37:17,22	20:24	accepted 54:16	163:5 168:6
38:7 116:11,14	abadieschill.c	70:6 112:2,20	206:16,18
133:8 162:23	2:18	accepting	207:12,14,17
163:19 172:1	ability 69:2	138:16 146:14	acquiring
172:14	158:2 256:10	accomplished	108:18 192:21
<b>9,290</b> 172:1	257:7	200:6	acquisition
180:6	<b>able</b> 18:4 30:22	account 94:13	168:17,20
<b>9,293</b> 172:14	36:21 60:8	121:3,4 175:15	207:2
<b>9,397</b> 174:4,12	61:12 84:5	accounting	acre 28:15
174:19	144:8,20 158:5	173:1	117:2 143:15
9,405,555.04	158:9,15,19,25	accumulations	159:6
149:24	159:7,19 163:8	218:19	acreage 28:17
9,779,073	165:10 172:2	accuracy 97:13	78:2 87:24
149:25	236:25 240:25	accurate 56:20	93:18 138:10
<b>9/11</b> 149:22	253:11,18	60:10,12 79:14	153:25 159:13
9/11/2024	<b>above</b> 21:25	80:12 102:4	161:19 191:21
150:3	22:5 62:1,15	115:20 140:7	194:3 195:5
<b>9/13</b> 183:5	63:1,13,21	149:8 150:10	214:7
9/13/2023	64:12,13,13	160:14 164:9	acres 165:8
182:21	81:16 82:20	164:10,22	act 67:7,14
<b>9/13/23</b> 183:3	102:17 103:12	175:19 176:3	acting 51:17
<b>9/8/23</b> 182:25	103:20,25	176:21 177:2	action 256:12
183:2,4	104:2 180:5	195:15 209:18	256:16 257:8
<b>900,000</b> 191:5	221:10,12,14	256:9 257:5	257:12
<b>9395</b> 231:6	<b>absent</b> 79:13	aches 147:24	active 201:13
<b>9400</b> 230:13,22	absolutely	achieved 85:15	actual 18:3
231:4	115:24 124:2	acknowledge	19:13 80:9
<b>970</b> 2:19	125:16 126:23	100:18	151:9 163:16
<b>988-4421</b> 2:11	141:15 149:6	acknowledged	198:23 199:11
	160:8 166:5	80:24	200:4,16
	186:25 190:3		204:19 214:8

## [actual - agrankin]

236:10	additionally	42:17 44:5,14	163:16 234:8
actuality	247:16	70:4 106:21	235:8 237:8
117:18 118:15	address 23:25	111:15,20	affidavits 7:12
actually 34:7	26:18 29:12	112:24 113:3	8:24 10:8
36:2 140:21	31:24 32:2	113:23,24	11:19 13:4
147:15 148:10	44:1 58:21	154:25 155:11	<b>affirm</b> 55:16
148:24 149:11	96:9 99:19	160:18	71:16
158:2 159:16	105:21 107:1	admitting	affirmation
164:4 171:6	116:12,17	42:13	111:4
184:8,10	195:8,9,23	adopt 55:13	affirmed 6:4,23
190:15 192:8	196:1 206:23	71:13 113:25	7:8,15 8:13,20
192:13 193:14	206:25 238:23	advance 70:14	9:4,19 10:4,11
194:20 206:1	239:19	246:22	11:8,15,22
224:14 248:7	addressed 44:1	advances 190:4	12:15,22 15:7
<b>ad</b> 6:21 8:11	196:2 242:11	advantage	15:9,11,14
11:6	addresses	194:15	39:14 115:12
adam 2:4 23:12	133:10	aerial 6:17 8:7	173:12 186:5
adapt 241:17	addressing	9:17 10:24	209:11 212:10
add 27:25	31:5 115:21	12:13	213:3 234:13
30:16 46:22	adequate 22:14	<b>afe</b> 148:4 149:8	afternoon
114:3 154:13	213:19 215:8	191:4 202:22	41:14 181:14
247:14	217:5	202:24 203:2	181:15 230:5
<b>adding</b> 229:15	adjacent 77:17	<b>afes</b> 6:13 7:24	<b>agent</b> 140:13
addition	<b>adjust</b> 166:14	9:13 10:20	141:3 201:11
247:12 249:7	administrative	12:9	201:12,15,17
additional	98:11 159:23	<b>affect</b> 78:21	201:17
17:19 29:3	160:5 202:12	252:5,5	<b>agile</b> 191:14
33:1 34:5	248:2	affected 21:18	<b>ago</b> 17:5 21:16
35:23 66:8	admission	88:14 102:6	24:17 32:10
71:8 106:3	17:19	116:4 168:10	125:24 134:2
125:20 131:5	<b>admit</b> 38:21	<b>affects</b> 143:20	147:7 184:19
159:22 160:4	39:8 107:5	160:16 250:13	184:22 222:5
168:6 169:9	155:4	251:9,20	242:4
170:1 184:23	admitted 34:15	affidavit 13:17	agrankin 2:9
184:25 241:6	37:14 41:21	26:5 163:4,11	

## [agree - apd]

agree 20:8	177:22 181:10	<b>amend</b> 119:16	141:9
56:13 77:5	192:21 197:14	195:6 247:13	
			anecdotally
78:12 80:23	202:18 205:18	<b>amended</b> 18:1	140:11 201:7
90:1 100:22	220:13	66:8,11 106:14	ann 257:2,15
103:18 124:3	aids 49:5	106:18 233:14	answer 59:5,6
124:22 125:2	algorithm 75:3	233:23 234:2	61:12 92:2
125:22 131:8	75:9,25 76:1	235:5 236:15	96:14 97:2,13
135:19 141:22	80:7 89:20	238:18 242:3	99:4,8 101:2,7
151:16 153:24	algorithms	244:2 247:11	111:24 129:2,8
161:18,22	75:16	amending	129:17 133:5
162:5,11,12,22	<b>align</b> 224:5	249:8	134:11,16
185:9,24	225:13	amendments	135:7 159:13
188:11 198:10	<b>aligned</b> 22:9,10	235:24	166:22 169:17
199:3 203:25	allocate 102:16	amicable	173:19,23
226:2,20 227:7	103:25	194:25 195:4	178:5 199:19
agreed 160:3	allocated 22:18	amicably 188:2	238:4 244:13
agreement	204:21	<b>amount</b> 21:20	244:13 245:6
146:3,5,7,13	allocation 22:2	68:25 73:6	answered 99:6
160:2,4 170:4	89:3 102:8,12	111:15 119:19	129:20 139:25
171:1 173:22	103:16 105:2	153:15 162:10	141:20 143:6
173:24 174:3,5	250:9,20	216:13	165:22
185:3 186:8	<b>allow</b> 18:2	amounts	answering 27:2
187:24 203:18	76:25 187:17	202:22	56:4 129:9
204:6,10,10	187:20 188:20	<b>ample</b> 32:1	135:2
247:19	191:23	33:5	answers 85:14
agreements	allowable	analogous 60:5	195:25
139:14	238:25	72:25 73:1,5,8	anybody 178:9
<b>agrees</b> 130:25	allowed 17:20	74:4	anymore 47:10
<b>ahead</b> 18:20	95:19 129:11	analysis 49:6	anyway 36:24
29:14 59:21	210:24 240:9	58:4 59:25	241:19
66:3 71:1	alluded 24:11	71:7 81:6	<b>apd</b> 140:6
101:18 104:22	140:20 141:12	95:17 104:6	144:6 196:6,16
152:3 158:19	alluding 171:5	211:6 227:9	198:16,19
163:10 170:5	amenable	anecdotal	199:3,25 200:1
175:23,24	158:22	140:16,20	200:4,10,12,19
·		,	. , ,

## [apd - asked]

201:22 236:12	annaanina	annuaghas	214.1 2 215.10
	appearing 20:24 21:11	approaches 191:14	214:1,3 215:10 215:12 218:17
<b>apds</b> 139:21			
140:2,19	232:23	appropriate	218:20 220:9
143:13,25	<b>appears</b> 154:19	22:15 66:10	220:19 222:4
144:9,14,20	174:12 182:18	155:2 232:15	223:7 230:4
197:5,6,9,12,17	213:5	243:11	231:9
199:18 201:5	application	appropriaten	areas 83:2
208:7	14:25 20:4	212:16	193:2,7,9
<b>api</b> 220:18,20	24:12 32:8,21	approval 140:7	218:18,20
220:22 221:10	134:3 173:11	140:10 202:10	223:8
221:12,15	178:5 195:7	approvals	<b>argue</b> 18:16
apologies	applications	140:1	arguing 52:11
175:24	15:4 17:8	<b>approve</b> 109:14	202:7 230:5
apologize 53:21	19:22 21:13,14	201:4,22	argument 85:9
72:12 101:4	22:12 32:19	approved	85:10,11 232:8
136:13 142:9	35:20,23 54:19	197:13 199:24	255:1
155:7 160:20	70:7 96:2	approximate	arguments
181:8 242:9	99:16 109:14	140:2	253:8,12,14,15
253:17	109:16 130:11	approximately	253:16,21
apologizing	134:1 135:10	16:3 48:20	254:22
242:18	135:11 177:25	49:15 76:16	<b>art</b> 189:12
apparent 72:13	194:23 199:22	95:4 150:2	ascertain
apparently	207:25 212:11	161:22 172:1	108:10 171:13
189:8	applied 158:6	area 22:16 57:9	174:10 180:1
appear 19:14	<b>applies</b> 161:13	57:11,14 61:2	203:4
36:21 179:17	<b>apply</b> 39:1	76:24 77:15	<b>asked</b> 22:21
182:4	96:25 97:1,11	81:22 83:14	32:20 36:10,24
appearance	98:7 243:5	102:11 111:6	59:8 91:14
18:5 20:18,21	applying 196:6	114:8 122:11	92:3,15 94:8
23:9 24:4	appraisals	124:8 125:15	94:10,23 95:11
25:10 187:9	49:14	125:19 138:16	95:24 96:1
188:21	appreciate	138:20 186:16	98:6 101:6,16
appeared 46:12	20:12 43:4	193:11 196:20	103:6 129:19
129:13 144:12	47:22 86:17	196:21 197:15	135:1,3 141:2
	156:24 157:2	213:20,24	141:20 183:6

## [asked - bachelor's]

	1	T	T.
196:5 225:25	171:18 172:16	138:12 143:24	192:13
230:2,19 239:3	172:16,18	186:10	aware 32:6
245:1	179:15,16,18	attention 60:18	60:19 78:1
<b>asking</b> 26:7,8	assignments	72:10 85:21	83:4 108:9,11
41:16 59:10	21:22 159:3,4	116:1 212:23	108:17 130:15
63:21 89:19	159:10 179:22	228:3	140:1,11 207:2
94:12 98:1	assistant	attorney 98:13	207:11 209:24
99:18 102:21	233:20,20	136:10 141:25	awesome 53:20
107:12 112:3	234:20 243:1	211:18 256:14	b
121:22 128:24	associated 71:8	257:10	<b>b</b> 6:1,23,25 7:1
130:3 142:24	71:10 216:8	attributing	7:4,5,6,7 8:1,13
150:24 151:12	assume 56:9	119:10	8:15,16,17,18
154:16 159:14	61:23 62:22	<b>audio</b> 256:8	8:19 9:1,19,21
167:10 169:12	63:7 79:5	257:3	9:22,23,24,25
174:21 175:4	82:16 179:7,8	<b>august</b> 194:23	10:1 11:1,8,10
177:3,7 185:1	249:24 250:1	automated	11:11,12,13,14
233:20 247:21	253:2	74:25	12:1,15,17,18
249:1 250:6	assuming 26:22	availability	12:19,20,21
253:23	45:15 251:19	36:12 45:3	13:1 14:1 15:1
asks 243:20	assumption	available 45:14	15:4 37:17,17
aspects 123:23	63:11,12	45:22 46:10,15	37:17,22,22,22
assess 102:15	attached 55:1	55:21 58:6	38:2,2,2,7,7,7
103:10 104:2	127:2 151:10	71:21 78:4	38:12,12,12
assessment	212:5	210:6 225:7	110:20 163:16
225:21	attained 48:18	228:6 236:23	179:23 180:12
<b>asset</b> 49:16	49:2	236:24 245:18	206:20 209:11
assigned 119:4	attempt 146:4	average 72:14	210:1,1 212:5
180:15 201:18	147:16 169:25	72:15,19,21	212:7,12 213:3
assignees	194:14 195:3	<b>avoid</b> 125:5	213:7 214:20
179:15	218:12 219:4	<b>award</b> 187:7	216:18,18
assigning	attempted	251:3	218:6 229:3
180:13	171:13 194:21	awarded 185:6	baby 245:22
assignment	194:24	185:18,22	bachelor's
13:7,9 117:21	attempting	186:8,14 187:1	48:18,23
118:1 163:17	132:20,24	187:18 188:9	10.10,23

## [back - believe]

1 1 1 1 1 1	1. 1.0.1	102 11 107 11	
back 17:15	barely 119:1	182:11 187:14	bearing 251:6
18:10 23:21	<b>barrel</b> 7:6 8:18	192:9 193:12	bearings
24:25 27:3	9:24 11:13	200:9 217:2,3	128:19
31:22 34:7	12:20 66:4	219:22 223:15	<b>began</b> 108:1,17
36:4,24 41:4	247:10	225:11,22	222:11
46:7 48:21	barrels 78:11	227:9,15,18	beginning
84:4 90:23	78:12,13,17,18	248:12	108:3 229:20
93:23 94:21	80:14 191:10	<b>basic</b> 72:11	<b>behalf</b> 2:2,13
95:5,8 101:7	barrier 28:19	basically 17:13	3:2 16:23
135:20,21,24	63:15 67:7	51:22 144:18	20:24 23:12
137:17 141:8	123:19	145:19 159:5	33:21 187:9
148:4 150:10	barriers 61:25	164:2,12,18	behavior
156:17 157:24	62:14,24 66:25	186:23 197:13	192:23
159:18,18	67:10	219:10 220:3	<b>belief</b> 178:3
166:19,21	barring 158:24	233:13,23	180:5
184:17 198:14	<b>base</b> 64:6	<b>basis</b> 20:9	believe 34:11
225:24 231:10	117:15 175:18	56:10 79:10	44:11 58:24
234:21 240:18	214:12 216:9	93:25 97:17	61:24 65:23
241:19	based 17:1	132:13 161:4,9	67:6 68:6 75:4
backfired	19:11,18 32:9	bates 41:1	77:18 81:1
51:22	58:4 59:24,25	<b>battery</b> 196:18	84:4 88:25
background	63:11 90:18,19	<b>bc</b> 192:13	95:19 99:5,9
50:7 121:23	90:24 91:15,18	<b>beall</b> 3:2 21:11	99:18 102:10
122:7,24	94:16 95:17,18	22:10 24:1,1,8	102:21,24
210:16	99:15,17,20	24:15,21 25:20	106:8 116:25
badger 170:8	100:8 103:5	27:5,19 28:4,8	123:13 130:13
170:14	108:12 109:9	28:8 33:16,16	133:16,16
<b>baffle</b> 63:23	119:18 122:22	33:17,18,19,20	135:15,17
67:15	123:7,13,25	180:5 249:23	140:18 142:10
<b>baffling</b> 62:25	124:1,4,18	250:4	148:24 168:5
<b>balance</b> 162:17	125:4,9 126:1	<b>beall's</b> 26:21	169:12 172:5
211:4	132:17 138:13	31:11 178:16	172:14,24
<b>ball</b> 194:14	145:12 153:9	178:23 179:14	173:8 177:8,9
206:15	158:4 164:23	251:13	182:24 194:6,6
	167:3 180:4,8		194:10 200:5

## [believe - bring]

204:17 207:8	182:3 215:2	73:4,4,22,24,25	230:9 232:12
207:21 213:24	231:5	74:1,9,10,13,14	241:4 248:15
214:14,22	<b>black</b> 65:11	74:17,18 77:15	249:2 250:10
217:20,21	67:6	78:17 79:15,16	250:11,21,22
243:9 244:19	<b>blm</b> 38:19	79:18 80:20,23	251:8,10
248:6,7 249:21	116:8 144:25	80:25 81:3,11	<b>bones</b> 149:25
251:16 253:20	145:7,7 196:7	81:15,19,20,25	<b>book</b> 172:17,18
benefit 36:22	196:16 198:25	82:13,19,20	179:17,18
241:5 245:15	199:24 200:13	84:7,17,21	<b>bottom</b> 62:22
254:21	200:14 201:1,4	85:3 87:2,8,9	65:21 72:23
benefited 241:1	201:22 202:9	87:15,18 88:10	81:25 216:9,14
244:25	202:12	88:10,13,23	219:1,2
<b>best</b> 36:18	<b>block</b> 215:2	89:1,4 96:18	<b>bound</b> 204:6
88:23 109:8	222:1	96:21 100:19	<b>box</b> 3:4 65:11
115:19,22	<b>blocks</b> 165:15	100:21 102:5	<b>boxes</b> 67:6
209:18 227:7	<b>blow</b> 126:21	117:16,17	<b>boy</b> 212:7
232:11 242:13	<b>blue</b> 214:7	123:6 149:19	bradford
256:10 257:6	<b>board</b> 130:24	149:20,24	189:23
<b>better</b> 53:20	<b>body</b> 210:25	170:22,22	<b>brain's</b> 221:4
61:6 124:20	<b>bone</b> 13:12	171:7 172:7,8	<b>break</b> 48:22
191:24 193:15	14:6,8,10,12,14	173:7,10 175:2	95:1,4 155:20
218:18,18	14:16,18,20	175:4,7,11,17	155:25 156:10
227:18	21:17,24 22:1	175:17,18	156:10,14
<b>beyond</b> 82:10	22:4,6,13,16	176:2,3,8,11,13	157:1,2
<b>bias</b> 76:6	24:6 25:19	176:14,17,19	breakdown 6:9
<b>biases</b> 75:24	28:18 30:18	177:4,7,10,14	7:20 9:9 10:16
80:6	31:6,12,14	177:20 213:25	12:5 160:15
<b>big</b> 151:19	32:9,18,24	214:10,11,12	161:4
<b>bigger</b> 137:13	61:14,16,19	214:15,17,17	breaks 161:8
<b>bill</b> 171:18	62:2,17,18,20	214:20,22	<b>brief</b> 51:3,5
172:16 179:16	62:21,22 63:1	215:7,12,13,15	105:19 208:3
<b>bit</b> 48:23 60:24	63:2,9,16 64:1	215:16,18,19	briefly 51:12
83:12 86:25	64:3,5,7,9,11	216:7,10,14	briefs 16:25
124:13 126:21	65:4 67:1,2,4,5	219:1 222:9,20	<b>bring</b> 29:2,14
166:2 173:4	67:9,11,17	222:22 225:8	197:24 244:7

## [bringing - case]

bringing 155:1	business 50:8	calculates	<b>carbon</b> 221:2,3
<b>broad</b> 125:11	52:12,14	90:21	carbonate 67:3
<b>broken</b> 132:12	139:10 143:12	calculation	carbonates
brought 27:17	243:24	113:6,10,11	67:14
31:2 32:3 92:5	<b>button</b> 110:9	211:1,2,14	carolyn 3:2
92:17 151:11	bypassing 20:5	216:12 224:3	21:11 24:1
197:4,16 203:8	c	224:10,15	26:21 28:8
208:4 240:13	<b>c</b> 2:1,14 3:1 6:6	calculations	carries 164:5
244:24	7:8,9,10,11,12	111:16 211:4	carrying 52:14
<b>brown</b> 229:7	7:17 8:20,21	<b>call</b> 16:15 39:3	<b>cartoon</b> 199:12
<b>building</b> 1:19	8:22,23,24 9:6	50:20,23	cartoons
<b>built</b> 17:25	10:4,5,6,7,8,13	105:14 184:22	198:14
<b>bulk</b> 224:25	11:15,16,17,18	237:6 246:13	<b>case</b> 1:9 6:3 7:3
<b>bullet</b> 199:23	11:19,24 12:22	<b>called</b> 1:6 53:3	7:14 8:3 9:3
<b>bunch</b> 242:5	12:23,24,25	69:16 115:3	10:3,10 11:3
<b>burden</b> 51:23	13:4 15:7 16:1	209:3	11:21 12:3
52:2	37:17,18,18,22	calling 50:22	13:3 16:17,22
<b>bureau</b> 135:16	37:23,23 38:2	172:5	19:18,19,20,23
<b>burke</b> 3:15 5:3	38:3,3,7,8,8,12	<b>calls</b> 211:23	20:9,9 23:8
6:24 8:14 9:20	38:13,13 54:7	<b>canada</b> 189:21	24:15 25:5,25
11:9 12:16	54:8 86:13	<b>cantin</b> 3:12 4:7	25:25 26:14
109:25 110:1	106:2,7 196:9	15:10 46:10	27:4,17,18
110:19,19,23	196:11,15	47:18,21,23	28:15,22 29:24
111:12,13,25	197:2 198:8,12	48:1,6 50:23	30:5 31:2
112:24 113:1,5	198:18,19,21	53:2,8,12 54:2	32:21 34:22
113:9,13	199:1 200:14	54:4,8 55:20	35:10,25 36:6
156:11,12	200:24 201:3	56:3,8 59:24	36:25 37:16,21
171:8 172:9	202:5 208:5,6	60:14 61:13	38:1,6,11
208:18,23	231:11,11	63:7 64:16,25	39:16 40:22
209:2,8,21	236:1,2,4,5,10	66:24 68:3,17	43:3 44:22
210:5,15 212:4	236:18	69:8 105:11	46:1 51:9,24
228:3,19	cake 165:12	capacity 54:11	52:11 75:3
229:24 232:3	calculate 74:24	70:1	79:10,10,11
257:2,15	223:3	caption 243:8	81:6 87:12,14
			105:14,19

## [case - choose]

106:15,16	cases 16:16,20	242:23 243:2,5	<b>chad</b> 183:5
107:5,8,15,18	16:25 17:17	243:9 244:2	184:8
114:15 116:20	19:25 23:2,3,5	248:7,8 251:20	<b>chain</b> 172:12
116:20,20	23:19 24:3,5,6	252:4,5,6,15	chakalian 1:16
119:22 120:2,6	24:8,21,25	253:19 255:12	16:6
120:10,16	25:2,2,10,12,15	catch 58:1	challenge 118:2
126:8 127:11	25:19,22 26:9	117:24 160:11	<b>chance</b> 26:19
127:23 128:16	26:14 27:9,20	category 141:7	28:22
130:21,22	29:17,22 30:1	<b>caught</b> 117:24	<b>change</b> 170:11
131:5,9,12,14	30:6 32:23	173:4	195:9 248:12
131:19 143:20	34:5,8 35:7	<b>cause</b> 76:1	changed
144:8,10,14	37:14 39:2	117:16,19	124:17 202:22
145:3,5,20	40:2 45:13	135:9 186:25	changes 55:11
147:18 148:11	52:16 54:20	218:20 222:22	164:23 202:25
150:9 158:7,10	70:8 107:25	caused 233:3	217:19 236:14
158:10,10,17	115:13 116:19	<b>causes</b> 147:24	changing
159:1,23	117:10 130:24	causing 52:3	235:24
171:23 173:8	131:3 133:17	<b>central</b> 196:18	characterizati
174:20,22	145:5,15	cents 149:25	20:8
175:9,16 176:2	146:24 158:6	certain 77:13	characterize
176:8 177:6,14	163:6 173:5	80:8 81:23	18:18 23:10
178:2 181:16	175:21 176:23	112:3 163:6	characterized
181:25 182:1,6	177:2,8,11	192:25 193:2,7	18:9
183:15 185:8	181:23 182:8	193:9 238:23	<b>charles</b> 179:23
188:20 194:6	182:12,17	240:23	180:12
198:3 204:25	183:2,2,7	certainly 84:4	checklists
205:1,3,5	184:1 185:20	104:15 112:8	14:25 248:2
206:1 209:12	185:23 187:6	certificate	<b>chief</b> 44:22
210:1 211:17	205:7 207:3,7	256:1 257:1	51:9 105:14,19
213:3 214:14	209:18 211:1	certified	106:16,16
214:20 222:7	212:6,12	196:11 198:10	107:5,8,15,18
223:12 228:11	214:16 215:14	certify 256:4	<b>chino</b> 1:19
241:3 242:8,11	215:16,20	257:2	<b>choose</b> 193:13
243:17 250:7	233:1,2,10	<b>cfr</b> 14:4	193:25 213:17
250:16 255:2	234:14 237:6		

## [chosen - comments]

ahagan 251.6	alanifu 19.7	155.24 162.2 0	aambaanuu
<b>chosen</b> 251:6	clarify 18:7 27:24 57:10	155:24 162:2,9 184:12 231:5	combocurve 75:15
chris 15:10			
46:10 53:17	71:6 73:21	240:19 243:23	come 17:15
christopher	78:14 116:3	closer 110:25	19:25 23:21
3:12 4:7 53:2	127:9 134:10	119:3 147:19	31:22 34:7
54:4	155:11 242:22	148:9,22 149:6	69:9 85:1 95:5
chronologies	243:22 248:10	149:8 150:11	105:18 110:7
183:11,13	248:24 249:14	162:20 230:17	146:6 150:10
chronology	249:14 254:8	<b>closes</b> 253:24	156:17 157:24
6:10 7:21 9:10	clarifying	closing 29:5	167:25 179:22
10:17 12:6	227:24	253:8,15,16,20	194:21,25
138:5 145:11	<b>cleaner</b> 220:20	255:1	195:3 225:12
145:12,22	<b>clear</b> 22:17	<b>cobbled</b> 108:18	240:18
182:11,13,16	33:11 41:16	<b>code</b> 38:18	<b>comes</b> 158:23
182:19 184:20	44:11 56:5	cogswell 1:22	159:14 238:2
<b>ci</b> 215:3	65:3 72:6	16:8 94:22	comfortable
circulated	75:24 145:19	256:2,18	200:22,23
41:13 43:7	145:21 153:3	coincide 183:18	<b>coming</b> 107:17
233:16	161:2 181:21	<b>colder</b> 220:20	186:11 192:16
circumstances	187:12 188:8	<b>color</b> 226:7	225:20,24
77:12,13 112:3	210:15 212:4	colored 229:7	230:9
140:14	221:1,8 226:5	<b>colors</b> 219:13	comingling
claiming 32:8	241:11 249:11	219:14 226:1,1	175:13
220:10	clearer 113:8	<b>com</b> 6:15,21	commence
clarification	<b>clearly</b> 137:22	8:5,12 9:15	144:5
19:10 20:12	218:13 227:17	10:22 11:7	commencing
28:14 30:3,17	clerk 242:5	12:11 116:2	190:16
33:23 70:25	<b>client</b> 21:15	117:2 118:3	comment 20:14
71:12 78:19	25:1,6 29:2	119:23 120:3,7	46:23 47:10
116:12	66:19 204:5	120:11,17	74:15 77:7
clarifications	249:20	139:13 143:18	82:21,22 86:12
70:23 239:19	client's 22:5	143:21 149:16	88:16 112:4
clarified	88:12 252:5,20	158:11,14	comments
239:21	<b>close</b> 17:20	174:25 176:14	123:1
	150:1 155:23		

## [commercial - conservation]

commercial	comparative	completion	conclusion
189:20	74:5	83:4 84:10	102:21 144:8
commission	compared	92:25 147:19	conclusions
111:14 210:23	73:10 119:21	completions	112:7 216:19
210:25	120:23 191:3	82:10,25 83:7	216:21 225:13
<b>commit</b> 187:17	223:17	100:5,8	253:9
commitment	comparing	complexity	conditions
186:7	72:24 93:16	241:3	163:15 203:19
commits	205:22,25	complications	conducted
188:10	206:1 223:16	46:2	199:23
committed	225:5	comports 246:4	conducting
132:23 133:22	comparison	comprising	26:16
137:2 158:24	13:18,22 72:14	143:18	confidently
187:16	73:2,13 74:3	compulsory	58:11
common	98:1,4 119:20	14:24 15:6	configurations
170:12 221:5	121:2 141:4	251:3	124:18
250:12	191:11	computer	confirm 60:8
communicated	compensate	53:17	128:13 237:16
145:13	224:10,25	<b>coms</b> 143:24	247:2 251:17
communication	competing	159:5	251:23 254:17
62:15 63:3,12	19:22 54:20	concentration	conflicting
63:15,17	70:8 108:19,20	220:21 221:17	42:23
138:21 169:9	108:21 109:7	221:18	confused 23:7
250:12,23	177:6 187:6	<b>concern</b> 102:18	33:19 97:23
251:8	206:1	concerned	105:24 135:14
communicati	compiled 39:22	243:3	136:5,19 155:3
168:25 170:16	complete 40:25	concerns 22:2	confusing
companies	83:16,18 173:1	conclude	22:21 106:6
140:11 196:19	200:15 201:2	103:15 121:11	confusion
company 17:10	completed	144:10	152:4 240:15
116:6,7 158:21	132:7 144:15	concluded	connect 29:21
192:24 193:16	200:4,7 201:3	255:15	connection
211:18	201:23 202:5	concludes	55:5
company's	completing	64:17 205:12	conservation
206:24	93:2 108:6		1:3,6 16:5

## [conservation - correct]

210:24	<b>contest</b> 176:10	contribute 80:8	70:17 72:20
<b>consider</b> 64:1,3	176:14	216:23 217:1,7	73:16 74:2,22
112:6 189:11	contested 16:4	227:13	75:7,19 76:9
consideration	16:16 26:24	control 82:10	76:13 78:6
163:11,14	51:20 52:16	92:16 154:1,4	79:5 80:20
considered	111:17 127:25	161:23 235:18	81:11 83:23
232:18	153:25 161:19	conventional	84:2 85:25
considering 1:8	176:25 177:1	190:16	90:3 96:2,5
204:1 253:10	185:8,13,20,23	conversation	99:24 100:2,3
consistent 73:7	207:3	29:13 150:12	100:5,6,8,9,23
73:13	context 88:8	150:15,19	103:22 105:2
consolidated	176:1	151:14 183:8	115:17,20
30:1	continue 18:9	184:10 185:4	122:2,9,12,16
consulting	18:12 109:1	conversations	122:24 123:10
49:11,13	128:7 166:23	143:11 146:1,9	125:6,24
<b>cont'd</b> 3:1 5:1	170:14 186:10	184:9 196:19	126:10,15,20
7:1,3 8:1,3 9:1	188:10	coordinating	130:17,18
10:1,3 11:1,3	continued 19:1	109:4	131:15 132:8
12:1,3 13:1,3	19:4 45:14	<b>copy</b> 207:13,18	132:15,16,21
14:1,3 15:1,3	continues	213:2	133:18 138:1
contacts 6:10	33:10	<b>corner</b> 51:20	138:25 139:19
7:21 9:10	continuing	65:22 215:3	140:5 141:9
10:17 12:6	184:24 188:19	222:19	142:13 145:15
138:5 145:11	<b>contour</b> 213:12	corporate	146:20 147:1
145:12,22	213:13,14,16	206:24,25	151:20 153:11
168:24 169:5	213:18 214:24	corporation	154:2,10,17
169:14 182:11	215:4,6,8,25	206:21	158:8 159:16
182:13,16,19	contract	correct 20:6	160:7,15 161:5
184:20	121:24,25	25:5,7,16 27:6	161:9 162:24
contain 35:2	186:16	30:9 37:2 40:5	167:7 168:7,14
73:17	contract's	41:1 54:14	169:8 170:18
contained	187:2	55:9 56:11	174:9,23,24
214:10	contracts	57:9,16 60:23	175:22 176:24
contains 56:17	186:13	61:3,18 63:10	177:9 181:19
203:20 216:6		65:15 69:5	182:1,8,14,21

## [correct - cursor]

	I	I	I
183:22 185:20	correlation	course 56:8	67:20 71:21
195:16 196:3	68:21	166:9 247:3	72:2 86:22
198:20 205:23	correlative	<b>court</b> 54:5	89:13 90:24
206:2,17 207:3	52:4 84:22	69:22 188:23	91:15,16 92:10
207:6 209:18	109:9 125:10	<b>cover</b> 32:24	92:22 93:10
210:17 212:13	125:13,17,20	40:10 108:19	114:4 121:13
212:17,21	193:15	234:1	121:18 168:2
215:17 216:19	<b>cost</b> 148:5,10	covering	171:6 181:12
216:24 217:8	150:9,11	116:23	196:24 197:2
217:10,12,15	190:25 191:6	<b>covers</b> 34:11	201:6 210:7,13
217:16,20,24	203:5 222:11	<b>crazy</b> 242:5	216:7 228:1,12
218:1,3,7,8	<b>costs</b> 147:10,19	create 75:22	228:20,21
219:7,8,15,16	147:22 204:20	171:21 219:21	229:1,3,5,6,20
219:16,18,19	<b>counsel</b> 21:2,6	221:20	229:25,25
221:11,16	39:7 41:13	created 172:15	230:1,20,25
225:23 226:7,8	43:8 44:11	247:11	231:2,2,12,13
226:10,11,14	126:7,19	<b>creates</b> 172:4,7	236:24 237:17
228:24 230:13	127:18 132:6	creating 219:24	237:18 245:19
230:18 233:15	235:25 256:11	credentials	246:3 247:13
233:24 235:2	256:14 257:7	50:8 54:16	247:14
235:11 237:4	257:10	70:6	<b>crosses</b> 102:11
237:19 242:7	<b>count</b> 216:10	criminal 98:13	crossover 26:8
245:8 251:14	counter 202:7	criteria 73:1	92:19
251:16,21,22	<b>county</b> 72:18	74:16	<b>crumbs</b> 165:12
corrected 168:7	76:12,17	critical 31:7	ctbs 144:2
correction	151:23 152:1,2	84:6	cumulatively
116:13 118:8,9	152:6,12,16,18	<b>cross</b> 7:4,7 8:16	87:10
118:10,11,12	153:2,7,13,14	8:19 9:22,25	<b>cure</b> 17:13 27:8
160:13	153:14,16	11:11,14 12:18	172:23
corrections	193:24 214:8	12:21 13:11	<b>current</b> 190:12
55:10 70:22	<b>couple</b> 38:18	14:9,17 33:5	236:14
114:2 116:16	89:14 95:23	38:17 46:15,18	currently
209:22 239:17	121:22 158:1	55:21 56:1	138:15 176:12
correctly 128:3	206:9	62:11 64:23	<b>cursor</b> 161:16
168:24		65:20 66:21	226:6

## [cursory - density]

cursory 171:9	<b>dash</b> 206:20	239:3,4 241:8	<b>defer</b> 81:6 82:3
171:10	<b>dashed</b> 67:6	241:20,24	deficiencies
curve 78:16,18	data 57:18	252:18	198:3
78:25,25 79:15	58:23 73:17,19	<b>dealing</b> 75:13	<b>defined</b> 19:13
79:16,17,18,24	73:22,23 74:11	103:9 240:14	definitely
87:1,4 89:21	85:9 86:4,6	deals 122:15	162:18 172:25
211:6	220:10 241:6,6	dealt 30:11	193:8,9 194:4
curves 79:22	dataset 74:19	31:19 87:14	244:13
customary	data 1:14	246:7	definition
150:7	144:16 149:21	<b>dean</b> 3:10 16:8	19:11 59:17
cut 34:3 150:1	241:3 244:20	december	65:6
220:14 236:9	dated 149:18	24:16 25:21	<b>degree</b> 48:16
cutoff 220:3,6	199:21 222:5	27:18 36:1	122:4,7,8,18,23
220:15,16	222:24 223:1	199:21 207:24	122:25 158:9
221:9,10 222:3	dates 86:8	250:19	220:24
223:13 224:1	183:14	decide 92:1	delay 147:14
225:1,4,9,10	day 17:7 34:6	112:22	241:2
<b>cutoffs</b> 221:19	237:9,21	decided 44:21	delivered 26:4
221:20,21	240:20	109:2 188:23	<b>delmar</b> 118:12
<b>cuts</b> 149:10	day's 245:16	239:22 243:2	119:8
cutting 34:2	days 19:11,12	decides 103:24	demonstrate
<b>cv</b> 48:10	24:17 86:11	decision 16:24	215:9 230:2
<b>cwm</b> 206:20	184:19 201:22	19:17,19	demonstrates
<b>cx</b> 4:6 5:2	202:1,10 235:1	146:15 170:6	79:24 217:4
d	235:19	240:21 253:24	denominator
<b>d</b> 4:1 5:1 15:9	deadline	decisions 88:18	165:9
16:1 55:1,7,8	235:16,17,20	94:14	<b>denotes</b> 132:23
60:18,20,21	238:11 245:9	decline 78:24	133:1,18
65:21,24 66:24	245:10	211:6	denoting
106:2 110:15	<b>deal</b> 16:21	<b>deemed</b> 200:15	133:20 136:23
<b>d&amp;c</b> 191:4	19:24,24 20:9	200:25	densities 89:2
darin 2:14,18	29:4 34:13	<b>deep</b> 149:10	224:19
7:9 8:21 10:5	38:25 43:17	deepest 117:22	density 85:23
11:16 12:23	44:19 46:14	117:22	122:22 123:2,5
20:23	122:12 159:11		221:24 223:6

## [density - differ]

223:10,12,15	100:20 101:22	designation	development
223:18,23	102:6,7 103:3	74:18	6:18 8:8 9:18
224:4,6,7,12,16	103:11,12,13	designing	10:25 12:14
224:24,25	104:15 116:25	83:13	22:4 28:18,20
225:2,6,10	117:22 170:21	desk 208:20	31:7 49:16
<b>deny</b> 17:1	171:1,3,5,6,21	detailed 83:13	51:25 61:7
109:15	171:24,25	details 61:21	67:10 76:9
denying 17:24	172:4,7,13,15	76:4 80:8 83:6	77:18,25 78:2
department 1:2	173:2,23 174:3	83:22 84:1,22	78:5 83:14,16
1:18 81:7	174:4,11,12,18	determinations	83:19 84:24
88:17 210:24	175:3 176:7	224:5	89:25 91:21
dependent	216:8 230:3,9	determine	92:6,10 93:16
201:11	230:11 241:5	22:14 68:25	94:13,17 96:2
depending	247:14 248:3	104:12 218:17	96:18,19,20
45:18 63:18	248:15,17,25	219:22	97:8,10 98:2
140:13 183:15	depths 249:2	determined	108:2 109:1,3
depends 56:16	<b>derive</b> 219:22	187:7	109:7,15,16
82:25 185:7,19	223:25	determining	121:5 124:15
<b>depict</b> 218:22	describe 58:7	79:12	158:3,19 159:8
depicted 60:20	60:1 66:25	develop 28:22	175:10 177:14
65:1	79:21 83:9	32:14 61:10	185:12,19
depiction 65:8	192:23 195:25	76:24,25 77:22	187:16 190:12
247:13	198:4 202:24	78:6 87:23	191:1,15
depicts 65:11	234:1	88:18 89:1	192:15 193:10
218:21	described	93:18 95:20	206:22 212:17
<b>depth</b> 13:13	74:17 80:19	109:10 159:13	227:14
22:1 26:10	195:19 196:2	159:16 213:10	developments
29:19 61:18,23	describing	227:6 232:16	73:6 92:8
62:1,2,3,15,16	40:11 78:8	developed 17:2	185:7
62:17,23 63:5	description 6:2	32:13 88:24	diagram 66:4
63:8,13,14,20	7:2 8:2 9:2	158:21 195:5	247:11
65:1,3 80:19	10:2 11:2 12:2	developing	dichotomy
80:22,25 81:2	13:2 14:2 15:2	100:20,22	203:22
81:16,17 82:17	78:12 80:13	108:7	<b>differ</b> 202:22
96:20 100:18	178:23		

## [difference - drained]

difference 19:4	115:6,25	disposal 196:19	documentation
60:2 80:4,13	121:12 208:22	dispute 77:8	200:9 247:18
80:14 96:17,19	209:6 211:8	distance 73:6	documentatio
133:21 136:23	212:23 218:6	199:6,8 214:13	202:6
137:1 151:17	219:11 224:7	distortions	documents
154:21 175:16	direction	75:25 80:6	179:23 242:6
217:18 218:5,9	136:21	distributed	doing 47:9
227:10	directions 82:9	214:1,3	51:16,17,18
differences	directly 86:14	distribution	89:24 92:1,8
59:1 79:21	disagree 20:8	213:19 215:10	107:7 123:12
80:9,9,12	discounted	215:11 217:5	179:24 195:8
92:18	149:10	229:12	218:24 237:21
different 19:7	discretion 51:3	division 1:3,7	<b>door</b> 20:5
19:20 27:17	247:15	16:5 20:1	93:23 94:9
28:17,20 29:20	discuss 58:25	24:14 46:12	95:12
30:4 73:14	90:10 237:24	48:3 50:17	dots 29:21
74:11 88:17	discussed	54:14 107:24	<b>draft</b> 56:10
89:24 92:6	124:13 138:9	109:14,20	57:6 134:20
125:9 151:17	138:11 150:14	111:8 133:23	<b>drafted</b> 57:1,11
175:15 183:11	150:18 211:16	135:4 136:22	58:6
183:13,14	244:3	137:18 144:12	<b>drain</b> 64:7,9,10
202:22 218:10	discussing	145:19 159:15	64:11,14 69:2
221:23 222:18	195:12	179:6 187:5	103:12,13
224:9,9,20,20	discussion	238:19,23	drainage 28:20
225:13 228:18	61:24 151:12	239:22,23	63:24 68:4
229:25 241:2	204:12	240:20 244:25	95:25 96:8
difficult 35:23	discussions	250:8 251:2,2	97:9 99:18
158:22	181:17 182:10	251:7,7,18	101:22,24
digital 256:8	183:21 195:1	252:16 254:21	102:5,16 103:3
257:3	dismiss 16:22	division's 126:7	103:9,19,19,21
dilution 28:19	21:14	docket 34:1	104:2,3,12
dire 211:22	<b>display</b> 213:19	237:6,8	drained 81:8
direct 53:6	215:4	document	88:20,23 99:22
60:18 69:19	displayed	15:22 40:25	104:9
72:9 85:20	224:22	42:7,11 242:7	

## [draining - engineer]

draining 64:5	<b>drills</b> 87:10	east 61:8 65:19	178:19 184:13
draw 201:15	<b>drive</b> 1:20	77:23,25 78:2	190:19 220:23
228:3	<b>drives</b> 127:21	78:6 192:16	247:17
drawing 112:6	<b>drop</b> 147:9	<b>echo</b> 16:10,14	electricity
201:15	<b>due</b> 21:15	23:15	196:20
<b>drill</b> 76:8 81:11	22:16 28:23	economic 49:6	elicited 85:9
81:15,18 83:17	116:25 176:23	71:6 77:2	<b>else's</b> 178:9
84:16 142:12	204:7 222:11	102:24 125:20	<b>email</b> 40:14
148:6 149:8	224:13 238:19	economical	43:9 163:3
150:11 172:24	240:5	77:6,13 93:17	207:22 233:19
172:25 175:11	<b>duly</b> 53:3 69:16	190:14	emailed 183:4
191:7 194:2,3	115:3 209:3	economics 77:9	183:5
199:22 222:20	256:5	93:15 94:15,17	emotional
drilled 21:24	<b>dx</b> 4:6 5:2	95:18 191:6	147:23
30:25 71:8	e	<b>eddy</b> 52:13	employed 54:9
72:18 76:12,17	e 2:1,1 3:1,1 4:1	72:18,24 76:12	69:25 221:20
77:16 82:16,17	5:1 6:1 7:1 8:1	76:17 151:23	256:11,14
82:24 87:21	9:1 10:1 11:1	151:25 152:2,2	257:8,11
88:2,7,10,11	12:1 13:1 14:1	152:5,12,16,18	employee
103:10 117:1	15:1,11 16:1,1	153:2,7,13,13	121:23,25
117:19,22	54:7 70:17,20	153:14,14,16	256:13 257:10
175:7 189:23	70:20 71:4	193:24	encroach 109:3
193:22 222:9	72:10,15,23	<b>edits</b> 209:21	<b>ended</b> 207:22
<b>drilling</b> 22:6,12	75:5 85:21	education	<b>energy</b> 1:2,17
22:15 52:13	87:5 106:2	48:16,22,25	2:3 190:21
63:20 65:12	110:20,23,23	effected 168:21	engagement
77:11 86:3	earlier 168:4	effective 89:1	145:24
88:15 92:24	168:23 222:10	<b>effort</b> 194:18	engineer 15:13
93:2 124:5,10	225:25	<b>efforts</b> 109:2,10	35:5,8,10,13,15
124:10 147:16	<b>early</b> 86:7	eight 140:12,24	36:17,21 46:11
147:18 190:17	146:1,10	152:8,18,20	48:5 49:4,12
193:20 194:1	190:23	201:9 225:1	49:17 50:12,14
203:5 204:15	ease 236:1	either 17:14	70:2 81:9
204:16 212:20	easier 147:21	18:15 50:22	82:22 83:13
222:10	147:24 203:21	166:1 178:15	84:11,19 86:15

## [engineer - examination]

00.0.02.24	4. 20.10	4 1 10 1 1	27.25.20.5.10
90:9 92:24	entire 30:18	established	37:25 38:5,10
94:15 99:24	31:13 32:8	84:17 158:15	38:15 41:22
104:1 111:16	63:3 64:1,3,5	193:10	42:4,17,21
218:17 238:21	173:7 177:19	establishing	44:5,9 97:24
244:7,8,17	214:3	159:5	97:24 188:21
245:12,18	entirety 73:11	estate 139:4	240:18
246:10,16	123:22 143:22	estimate	evidentiary
250:24	154:13 173:9	147:18 203:3	245:9 246:21
engineering	177:3 179:21	<b>esu</b> 71:9 81:12	evolution 126:1
48:14,18,24	entities 206:20	eur 78:10,11,17	189:7 190:1
49:10 50:8,18	entries 20:18	78:18,21,23	evolved 124:4
68:5,7 79:4	20:21 23:8	79:2,12,19	124:18,23
82:6 93:15	<b>entry</b> 123:19	80:1,9	125:23
97:25 100:2	187:8	eurs 80:4	<b>exact</b> 64:13
111:21 112:2,5	envision 147:17	evaluate 68:17	79:23 128:16
112:21 113:4	equally 216:23	68:24 79:9	131:7 216:6
122:18,23,23	217:1,7 227:13	223:8	exactly 63:4
122:25 189:6,7	equate 165:8	evaluating	81:17,22 83:1
210:21 238:24	equates 221:5	87:23 212:16	83:6 203:2
240:7 241:6	223:14 225:9	evaluation 49:6	<b>exam</b> 92:22
244:23 245:1	equation	69:4 79:5	examination
engineers	224:21	224:3	38:21 46:15,18
35:18	equivalent	<b>evd</b> 6:2 7:2 8:2	53:6 55:21
<b>enhance</b> 190:20	225:3	9:2 10:2 11:2	56:1 64:23
<b>ensure</b> 175:12	<b>erred</b> 242:14	12:2 13:2 14:2	66:21 67:20
enter 18:4	<b>error</b> 116:22	15:2	68:1,15 69:19
25:10 33:2	172:11,20	<b>event</b> 18:22	71:21 72:2
183:25 184:6	195:20	19:13 158:13	86:22 89:13,17
186:13 188:21	es 256:4	169:22 175:10	90:24 91:15,16
188:21 203:9	especially	186:22 187:18	93:10 100:14
entered 21:7	191:8 241:4	188:8	101:19 102:2
24:4,16 25:1	esquire 2:4,5	evidence 17:19	104:23 115:6
25:20 97:23,24	2:14 3:3	18:14 19:6	121:13,18
203:11 204:2	essentially	31:23 33:2	168:2 181:12
	146:11 225:2	34:5 37:15,20	189:3 197:2

#### [examination - examiner]

205:19 206:12	38:23 39:6,10	94:3,6,19 95:3	134:23 135:1,6
208:22 209:6	39:16,20,24	95:8 96:12,22	136:7,14 137:7
210:7,13 228:1	40:1,1,3,6,9,12	97:5,12,16,20	137:12 141:16
232:1 236:24	40:15,16,20,23	97:22 98:5,9	141:22 142:18
237:18 245:19	41:3,10,15,20	98:12,15,19,22	142:23,25
246:3	42:6,10,14,22	99:3,7,11	143:2 155:3,8
examinations	43:1,9,10,13,16	100:11,13	155:13,17,24
38:17	43:21,23 44:2	101:1,5,12,13	156:2,4,8,13,22
examine 33:5	44:13,16,19,25	101:18 102:1	156:25 157:3,6
examined 53:5	45:2,6,11,16,18	102:23 103:1	157:9,11,14,17
69:18 114:4	45:21,24 46:3	104:19,22	157:19 160:22
115:5 209:5	46:6,13,17,21	105:5,9,16,24	165:24 166:6,8
examiner 1:16	46:25 47:2,5,9	106:4,9,13,17	166:11,20
3:10 16:2,6,7	47:12,17,20	106:20,24	167:19,23,24
16:12 17:2	48:7,15,21	107:7,10,14,17	173:15,18,25
18:8,20,25	49:3,8,18,23	107:21,24	180:20,22,25
19:3,17 20:7	50:1,4,11,15,24	109:18,22	181:2,4,6,9
20:13,17,20	50:25 51:2,7	110:2,6,16,21	187:12 188:16
21:1,4,8,11,19	52:19 53:12,19	110:24 111:10	188:17 196:25
22:8,20,25	53:24 55:20,22	111:19,23	197:3,18 198:2
23:6,12,14,16	57:20,23 58:19	112:11,23	198:5 201:25
24:7,18,23	59:2,3,7,13,16	113:2,7,11,14	202:2,11,14,18
25:4,9,14,18	60:16 64:19,22	113:21 114:7	205:13,15,18
26:1,6,12 27:1	66:9,12,15,18	114:10,13,22	206:7,8 208:13
27:7,15,22	66:20 67:19,21	114:25 117:5,7	208:16,25
28:2,5,9,24	67:22 68:11,14	117:11 118:7	210:8,10,12
29:8,15 30:2	69:7,12 71:20	118:18,25	211:20 212:1
30:10,19,24	71:22 72:1	119:6,9,12	227:20,22,24
31:9,18 32:4	84:9,14 85:5	121:14 127:8	231:19,21
32:15,20,25	86:19,21 89:8	127:10,12,15	232:21,22
33:6,9,14,18,24	89:9,11,16	128:1,2,8	233:12,18,25
34:13,18,23	90:6,13,17,22	129:6,12,15,18	234:4,7,10,12
35:1,7,11,25	91:3,6,9,13,22	129:23 130:23	234:16,24
36:9,15,20	91:25 92:12,20	131:1,6 133:4	235:3,7,12,15
37:3,8,12	93:6,20,24	134:5,12,15,19	236:3,13,17,20

## [examiner - exhibits]

237:1,5,12,20	exceptions	12:25 13:4,7,9	168:7,16 169:7
237:23 238:1,4	240:23	13:11,14,17,20	169:8 170:18
238:7 239:2,6	excited 190:24	13:22 14:4,6,8	179:15 182:14
239:12,16	excluding	14:10,12,14,16	194:5 195:19
240:1,10,17	31:15 251:25	14:18,20,24	196:12,13
241:7,11,14,18	exclusively	15:4,7,9,11,14	209:11 212:5
242:2,17,21,24	121:25	15:16,19,22	212:12 213:3,7
243:6,10,14,16	excuse 36:4	37:5 41:17	217:20,23
243:19 244:1,5	37:4 103:23	42:17,23 44:6	218:6 229:3,4
244:12 245:5	142:22 181:6	44:7 55:1	233:14,22,23
245:24 246:12	209:9	57:13,16 60:18	236:15 238:2
246:15 247:3,9	excused 105:6	60:22 64:25	242:3 244:2
247:23 249:18	208:17	65:7,10,21,24	245:13,17
249:25 251:1	<b>exhibit</b> 6:4,6,7	66:24 67:1	247:12 249:8
251:11 252:2,8	6:8,10,12,14,17	70:17 71:4	exhibits 13:6
252:10,13,21	6:19,21,23,25	72:10,15 75:5	14:3,23 15:3
252:25 253:1,7	7:4,5,6,7,8,10	78:9 85:21	15:18 30:14
253:13,18,22	7:11,12,15,17	87:5 105:21,25	32:5 34:10,14
254:3,10,13,18	7:18,19,21,23	106:2,3,7,12,18	34:14 35:3,3,6
254:20,24	8:4,7,9,11,13	106:22,23,24	37:13,16,21
255:3,6,9,10	8:15,16,17,18	106:25 115:13	38:1,6,11 39:7
examiners 71:3	8:19,20,22,23	116:15 117:7,8	39:12 40:24
107:24	8:24 9:4,6,7,8	117:9,10	41:6,8,18,21
example 58:13	9:10,12,14,17	118:14 119:1,3	42:1,18 43:6
73:21 74:9	9:19,21,22,23	126:14 128:4	43:17,19,24
75:5 90:9	9:24,25 10:4,6	132:11,11	44:3,4,4,14
124:19 149:14	10:7,8,11,13,14	133:11,11	52:8 53:22
151:4 189:10	10:15,17,19,21	134:11,13,14	55:5,7,14,16
190:6 193:1	10:24 11:4,6,8	134:20 135:21	56:24 57:5,7
214:6 224:12	11:10,11,12,13	135:25 137:3	57:19 65:2,9
240:23 242:20	11:14,15,17,18	137:21 146:24	65:11,17,18
examples	11:19,22,24,25	147:6 151:7,7	66:5,9,11
190:13	12:4,6,8,10,13	151:8 160:13	70:19,20,24
exception	12:15,17,18,19	161:8,12 163:1	71:5,14,17
158:7	12:20,21,22,24	163:2,3,7,11,16	72:12 97:23,24

## [exhibits - f]

100:1 106:10	<b>expert</b> 48:2,12	explicitly	26:18 28:7,8
112:5 113:22	50:17 59:9,9	151:15	35:14,17 37:6
114:1 115:13	59:18 70:5	<b>explore</b> 197:10	37:10,16,21
115:17,20	75:21 82:15	197:11	38:1,6,11 41:6
116:9,10,11,21	85:16 89:10	explored	42:1 51:16
126:6 136:21	97:25 100:4	197:16	72:15,17,24
137:19 138:13	111:20 112:1,2	express 18:6	73:6 76:25
149:14 151:5	112:15,20,25	expressed	87:11 99:23
154:21,25	113:3 121:12	17:25	100:21 102:17
155:5,11 161:3	180:21 209:10	extend 77:24	106:22,23,24
178:18 180:9	210:6 231:20	78:5 108:25	106:25 108:1,9
195:7 209:12	237:2	146:8 169:24	108:14 109:1,3
209:17 210:1,3	expert's 95:15	extended 19:15	109:10,13,14
211:17 216:18	expertise 35:17	109:9 183:8	115:9,11 119:4
228:10,12	48:11 95:15	extending	119:20,23
229:21 234:5	111:7 112:8	60:24 61:4	120:3,7,11,17
235:22 238:11	122:11,21	extensive 146:1	120:23 121:23
238:22 239:7	211:23	<b>extent</b> 174:21	121:25 127:18
241:19,24	<b>experts</b> 109:20	185:4 210:20	127:22 131:14
244:18,23	expiration	244:22	138:9,12
245:12 246:1	197:8	extra 249:13	139:10,13,21
249:19 254:14	expirations	extracting 93:4	144:19 145:23
<b>exist</b> 32:17,21	143:10 148:3	extraction	147:12 151:22
80:12	expires 142:5	84:23	152:5,11,15,17
<b>exists</b> 61:18	142:10	extremely	153:10 154:2
<b>expand</b> 114:17	explain 75:12	192:2 201:13	158:6 161:13
<b>expanded</b> 30:6	92:21 143:8	$\mathbf{f}$	162:22 163:2
expectations	147:25 148:12	<b>f</b> 2:13 6:3 7:3	163:22 167:4
150:8	148:14 218:9	7:14 8:3 9:3	168:5,17
expects 234:21	222:3	10:3,10 11:3	169:21 170:25
expedite 144:4	explained	11:21 12:3	171:11,17
experience 50:9	137:20 248:14	13:3,6 14:3	174:21 175:20
52:12 123:9	explains 222:2	15:14,21 16:23	177:2 181:17
153:10 203:10	explanation	20:21,24 21:13	181:23 183:20
225:12	92:21 149:4	22:9,11 23:4	184:6,16 185:6
223.12	72.21 147.4	22:9,11 23:4	104.0,10 103.0

# [f - fifty]

185:18,22	253:8	179:12 189:25	143:18,21
186:22 187:15	<b>factor</b> 79:1,12	198:7,15	158:11 174:25
187:17,18	<b>factors</b> 78:21	199:14 201:4	federal 38:18
188:9 190:15	78:22 79:7	232:7 237:2	108:13 116:2
191:13 193:14	109:12	248:3	117:2 118:3
193:22 197:14	<b>facts</b> 19:18	<b>far</b> 83:2 85:15	119:23 135:18
201:16 202:5	<b>fails</b> 172:13	108:9 123:16	139:19,21,22
204:6,8,23,25	186:22 200:16	123:17 222:7	140:1,10,19,22
205:2,4,5,7,23	<b>fair</b> 44:18	223:5 240:7	140:24,25
212:6,21 213:9	58:24 75:23	<b>fast</b> 20:5 35:24	141:2 142:16
227:5 230:1	77:12 80:11	<b>faster</b> 166:2	143:13,25
232:6,14 244:9	82:11,13 83:15	<b>favor</b> 239:23	144:5,6,14,20
<b>f's</b> 78:10,16	89:20 92:11	favorable 77:2	147:13 201:14
79:25 96:2,18	98:21 102:14	<b>fe</b> 1:21 2:8,17	<b>feel</b> 45:7 178:5
96:19 97:8	102:18 103:8	feasible 186:12	200:3,22,23
108:16,20	103:14 104:1	february 17:16	237:14,20
120:25 121:5	122:20 153:9	17:18 18:15	246:19,24
139:7 146:4	155:15 186:21	29:3,4 31:22	250:11
158:2 163:17	199:3 232:13	33:1,10,23	<b>feels</b> 112:6
164:24 168:10	237:22,24	34:1 36:21	<b>feet</b> 67:4 73:12
169:21 174:20	238:2 245:20	45:15 46:4,7	74:21 104:14
178:18 181:18	246:3	47:8 144:11,15	172:1,14 174:4
183:16 197:7	<b>faith</b> 188:10	188:20 233:4,5	174:12,19
205:9 212:11	194:18	235:1,4,16	180:6 216:11
226:22 227:14	<b>fall</b> 46:7	236:21 237:7	230:13
228:10 235:25	<b>falls</b> 102:24	237:14 238:10	<b>field</b> 48:3,4,11
<b>face</b> 102:18	<b>false</b> 166:1	243:23 245:19	48:20,25 49:9
facets 83:21	familiar 54:19	246:23 252:14	70:5 95:15
<b>facing</b> 100:17	54:22 60:23	253:3 255:12	112:15,17
<b>fact</b> 13:17 18:5	61:13,16 70:7	256:16 257:13	123:14 248:3
21:15 51:19	70:10 75:9,16	<b>fed</b> 6:15,21 8:5	<b>fields</b> 123:16
82:6 85:10	86:13 91:21	8:11 9:15	<b>fifteen</b> 154:6,7
141:12 163:4	96:1,4 97:8	10:22 11:6	<b>fifty</b> 191:10
163:12,16	115:16 170:20	12:11 120:3,7	213:16,17
200:14 204:7	178:16 179:9	120:11,17	

## [figure - forming]

<b>figure</b> 242:13	<b>filings</b> 172:6	161:2 171:24	<b>foot</b> 74:21
file 25:25 40:7	financial 49:6	176:2 177:7,9	153:1 172:15
143:25 144:6,8	147:24 170:12	182:20 189:9	213:14,16,17
144:20 163:10	financially	189:19,22	213:18 214:24
187:8 228:18	194:4 256:15	198:18 209:3	215:6,8,24
233:15,17,20	257:11	233:4 234:2	<b>footage</b> 64:13
234:18 236:12	<b>find</b> 22:23 93:9	238:9 239:3,3	64:14
238:10 242:7	94:22 218:18	240:2	<b>footers</b> 152:25
243:1,12 244:1	240:2	<b>five</b> 60:21 95:4	153:19
245:17 250:7	findings 253:8	181:23 188:24	<b>force</b> 184:1,7
252:3,14,17,17	<b>fine</b> 30:11 39:5	205:7 209:25	forefront
<b>filed</b> 16:23 17:5	45:4,8,13	212:6,12	254:23
17:5,8 19:21	50:22 114:3	252:10	<b>forego</b> 206:11
23:2,5,7 24:12	129:18 131:9	<b>fix</b> 241:23	foregoing
24:24 25:16	131:17 136:14	flexibility	256:3,4 257:4
26:17 32:10	143:5 153:24	193:12	<b>forget</b> 243:20
34:24 35:20	155:22 156:3,6	flexible 146:6	<b>forgot</b> 156:11
36:1,11 37:6	156:7 184:15	191:14 192:2	222:24
37:10,14 40:4	198:5 240:6	<b>flood</b> 190:19	<b>form</b> 176:13
41:18 52:5,7	252:19 254:16	<b>folks</b> 18:2	184:18 187:25
54:20 70:7	255:8	26:20 92:7	<b>formal</b> 169:24
114:20 130:12	<b>finish</b> 107:3,5	<b>follow</b> 29:24	formation
139:10,21	107:13 129:11	63:25 89:12	21:17 22:7
142:15 143:12	<b>finished</b> 142:20	104:20 157:25	56:15,21 68:19
143:13,15	finishing	170:1 205:16	68:21,25 69:1
163:15 177:10	155:23	207:12 231:22	69:2,3 73:3,20
197:9,12	<b>first</b> 13:7 16:21	followed	88:20,23,24
233:10 236:9	23:9 41:16	124:25	104:13 117:19
242:5,23 246:1	44:22 45:5	<b>following</b> 22:21	117:23 123:6
246:1,22	50:21,23 53:3	25:2 125:3	175:2 190:21
<b>files</b> 20:4	69:16 78:24	216:18	222:16
<b>filing</b> 144:14	87:18 88:1,3	follows 53:5	formations
194:22 207:25	88:10,11 101:8	69:18 115:5	87:11 222:18
235:4 242:14	108:4 113:18	172:11 209:5	<b>forming</b> 177:19
243:4	115:3 136:8		

# [forms - give]

<b>C</b>	£4	107.15	1
forms 6:6 7:17	<b>front</b> 58:10,16	game 197:15	geologist 6:24
9:6 10:13	58:18 60:11	237:24 238:2	8:14 9:20 11:9
11:24	65:15 79:23	gamma 220:16	12:16 15:10
formula 250:9	213:2,4	220:16 221:9	46:10 48:4,6
250:20	<b>fs</b> 79:16	gas 14:5 49:7	50:10 54:12
<b>forth</b> 184:17	<b>fulfill</b> 204:9	123:13,23,24	56:9 58:25
219:23	<b>full</b> 28:22 53:8	124:7 189:10	59:4,6 66:24
fortunate	54:3 69:21	189:15,20,22	84:18 110:1
201:16	80:8 83:17,22	190:1,4,17	111:14 112:25
<b>forty</b> 252:10	115:9,10	191:8 218:19	171:8 172:2
<b>forum</b> 118:2	121:23 209:9	<b>gather</b> 155:21	192:7 210:16
forward 23:24	216:13 246:3	<b>gears</b> 139:17	218:16 225:12
158:6,9 159:8	<b>fully</b> 76:3 84:23	general 58:12	<b>geology</b> 35:3,5
187:11 208:20	108:7	58:21,25 60:2	60:5 61:14
244:21	further 20:18	68:21 78:22	64:25 68:5
<b>found</b> 171:17	23:22,23 29:7	104:13 119:19	79:1,12 81:7
174:12	30:25 60:24	124:6 146:17	82:3 109:11,12
foundation	66:13 68:12	147:11	111:20 112:1
97:3,18,21	101:19 102:2	generalize	189:10,12
<b>four</b> 17:16	104:23 125:5	58:14	191:22 192:9
145:13 148:6	149:4 180:21	generally 60:10	209:25 210:3,6
159:6,6,7	206:6 208:15	75:18 81:13	212:16 244:22
181:22 182:8	217:9 227:19	96:6 145:4	getting 103:4
182:17 205:6	231:20 256:13	generate 82:4	128:19 148:2,8
235:19 252:15	257:9	<b>geo</b> 104:8	156:21 169:20
<b>fourths</b> 162:20	furthering	geologic 28:19	182:2 184:12
frack 82:7,12	125:8	66:25 67:10	210:11 222:13
fractures 82:7	<b>future</b> 87:22	232:17	253:20
<b>frame</b> 95:13	144:16 203:6,6	geological 58:4	give 17:6 51:8
245:11	g	61:25 62:14,24	52:22 53:14
francis 1:20		63:15,23 81:5	60:12 62:8
<b>free</b> 178:6	<b>g</b> 2:4 15:16	geologically	64:14 78:22
<b>freya</b> 34:3	16:1 42:19	68:19 73:5	84:1 117:8
40:12 42:22	gain 51:21	232:11	119:19 149:14
43:14 188:22	194:14		160:23 175:25

## [give - great]

190:12 228:7	166:21 170:5	99:19 101:7	252:3,18 253:3
235:8,16,17,20	171:12 175:23	112:15 121:21	253:15 254:8
239:22 254:25	175:24 178:15	126:4,13,17,18	<b>golden</b> 188:6
<b>given</b> 35:19	181:10 188:17	126:23 127:6	<b>good</b> 23:11
96:14 101:7	188:24 192:15	127:24 130:19	25:18 29:9
207:19 241:3	197:10 198:2	130:20,22	37:9 41:21
<b>gives</b> 235:21	202:18 205:18	131:19,23	46:6 50:15
<b>giving</b> 202:22	215:21 219:23	132:17 138:4	83:12 111:11
246:23	220:13 222:16	141:8,23 143:9	113:2,15
<b>glad</b> 25:24 46:7	228:11 229:21	144:10 145:25	114:25 119:13
107:19	233:4 240:2	146:22 147:14	121:20 136:9
gmail.com 3:6	242:4 244:21	148:5,15 150:9	148:4 156:8,13
<b>go</b> 18:20 20:18	<b>goal</b> 169:21	155:23 156:5,9	156:25 167:12
25:23,25 26:23	203:4	156:10,14	181:14,15
27:3 29:14,24	<b>goes</b> 18:17	157:14 159:22	188:10 192:20
36:4 38:25	45:19 48:25	166:19,23,23	193:5,6 194:18
39:3,7 41:4	110:1 147:25	167:25 175:25	215:23 217:11
42:6 44:20	211:2 224:20	176:1 177:22	222:17 223:1
49:3 59:21	243:16	178:13 179:7	224:24 238:8
64:19 66:3	<b>going</b> 16:13,15	187:6,11	245:21 246:16
70:25 82:7,7,9	17:3,12,14,15	190:22 191:21	<b>govern</b> 198:16
94:21 101:7,8	18:12 19:24	192:17,20	government
101:18 104:22	20:1,7 22:18	193:4 197:1,20	135:18 140:22
106:25 114:4	23:17 26:21	210:20 211:24	140:25
126:14,17,23	28:25 29:1	211:25 212:23	granted 117:21
127:6 130:19	31:21,21,24	212:24 213:7	granular 58:10
130:21,22	32:13 34:2,3	217:17 219:9	granularity
131:19,19,23	43:2 45:5,14	221:4 222:25	104:16
132:4 137:17	50:25 52:21	230:19 233:1	<b>graph</b> 72:14
138:4 144:18	53:13,16 59:16	234:2 235:20	<b>grasp</b> 192:20
146:22 147:16	60:4 63:11	235:23 237:17	grasping 26:25
147:22,23	72:10 74:12	237:18 239:7	51:15,16 52:18
152:2 158:2,19	83:17,20 84:18	242:2 245:10	<b>great</b> 36:22
159:18 160:25	84:19,21 90:4	246:8,9,13,22	165:19 166:16
161:3 163:9	92:9 94:18	249:23 250:24	236:13,20

## [great - hearing]

	I	I	I
249:3 255:5	12:20 66:4	84:11 85:20	53:18 56:4
greater 56:20	247:10	86:17,24 89:19	72:5 101:2
56:21 154:3	<b>guys</b> 142:15	92:7 93:14	119:2 141:24
205:10	h	94:11 95:17,24	164:15 166:15
greatly 144:3	<b>h</b> 6:1 7:1 8:1	99:5,15,16	166:18 168:24
gregory 1:16	9:1 10:1 11:1	100:16 101:21	179:8 208:20
16:6	12:1 13:1 14:1	102:4,22 103:8	226:25 255:11
gross 7:5 8:17	15:1 54:7,7	104:18,25	<b>heard</b> 17:8 18:3
9:23 11:12	69:24 110:15	<b>hand</b> 92:8,8	19:14 24:14
12:19 14:10,18	110:23	144:7 215:3	36:16 61:20
216:1,3,5	half 24:13,13	<b>hands</b> 47:24	92:21 111:4
218:11,15,21	24:14,14 30:7	111:3	114:11,16
218:22,25	30:7,8,8 123:4	happen 56:4	232:3 235:24
229:8,17	123:11 132:13	72:5 88:15	237:23 245:13
groundwork	140:6 143:17	160:7 201:14	<b>hearing</b> 1:5,13
51:13	143:17,20	242:18	1:16 16:2,4,5,6
guadalupe 2:7	152:25 153:6	happened	16:12,16 17:14
<b>guard</b> 173:4	158:12,12,16	26:17 146:18	18:3,4,5,8,11
guess 26:6 62:7	159:11,11,14	168:8,9 184:11	18:11,12,20,23
62:13 63:21	159:14 163:24	happens 17:17	18:24,24,25
88:5 116:23	175:6,6,12,12	<b>happy</b> 40:14	19:3,12,12,12
133:7 135:14	175:20,20	41:12 43:8	19:17 20:7,13
170:24 173:23	176:22,23	50:2 131:8	20:17,20 21:1
174:1 175:13	177:3 182:1,1	179:5 218:12	21:4,8,10,19
177:17 180:16	182:5,5 195:13	236:12 250:14	22:8,20,25
180:17 207:1	248:10	<b>hard</b> 164:15	23:6,11,14,16
223:2 228:11	<b>hall</b> 1:19	166:15 226:4	24:7,18,23
230:24 236:6	hamilton 3:13	hart 2:6	25:4,9,14,18,23
244:21 247:15	4:12 15:12	hate 130:20	26:1,2,6,12,18
248:24 249:11	46:11 47:21,23	<b>head</b> 76:19	26:24 27:1,7
250:4 253:12	48:9,13,17	161:25 165:2,9	27:15,22 28:2
guidance	49:1,5,11	179:24	28:5,9,24,25
178:20	50:16 53:16	<b>hear</b> 16:10 21:8	29:2,8,13 30:2
<b>gun</b> 7:6 8:18	69:9,15,21,23	29:3 31:22	30:10,19,24
9:24 11:13	71:20 72:4,9	33:25 34:4,7	31:9,18 32:4
	11.20 12.7,7		

## [hearing - hearing]

32:14,15,20,25	68:11,14 69:7	114:25 117:5,7	205:13,15,18
33:6,9,10,14,18	69:12 70:14	117:11 118:6,7	206:6,8 207:3
33:24 34:13,18	71:11,19,22	118:18,25	208:5,13,16,24
34:21,23,24	72:1 84:9,14	119:6,9,12,16	210:8 212:1
35:1,7,11,25	85:2,5 86:19	121:14 126:8	227:20,22,23
36:9,15,20	86:20 87:7,13	127:3,8,10,12	231:19,21
37:1,3,8,9,12	89:8,9,11,16	127:15,25	232:21,22
38:23 39:6,10	90:6,13,17,22	128:1,8,17	233:7,12,17,18
39:16,20,22,24	91:3,6,9,13,22	129:6,12,15,18	233:25 234:4,7
39:25 40:3,4,6	91:25 92:12,20	129:23 130:23	234:10,12,16
40:8,9,12,16,20	93:6,20,24	131:1,6 133:4	234:24 235:3,7
40:23 41:3,10	94:3,6,19 95:3	134:5,12,15,19	235:12,15
41:15,20 42:6	95:8 96:12,22	134:23 135:1,6	236:3,13,17,20
42:10,14,22	97:5,12,16,20	136:7,14 137:7	237:1,5,7,12,15
43:1,9,10,13,16	97:22 98:5,9	137:12 141:16	237:20,23
43:21,23 44:2	98:12,15,19,22	141:22 142:18	238:1,4,7,18
44:13,16,19,25	98:23 99:3,7	142:22,25	239:2,6,12,16
45:2,6,11,16,18	99:11 100:11	143:2 155:3,7	240:1,10,17,20
45:21,24 46:3	100:13 101:1,5	155:8,13,17,24	241:7,11,14,18
46:6,13,17,21	101:11,13,18	156:2,4,8,13,22	242:2,5,10,17
46:25 47:2,5,9	102:1,23 103:1	156:25 157:3,6	242:21,24
47:12,17,20	104:19,22	157:9,11,14,17	243:6,10,12,14
48:7,15,21	105:5,9,16,24	157:19 160:22	243:16,19
49:3,8,18,23	106:4,9,13,17	165:24 166:6,8	244:1,5,12
50:1,4,11,15,24	106:20,24	166:11,20	245:5,24
51:2,7,15,20	107:7,10,14,17	167:19,22,24	246:12,15
52:7,19 53:12	107:21,23	173:15,18,25	247:3,8,23
53:19,24 55:2	109:18,22	179:3 180:20	249:18,25
55:19,22 57:3	110:2,6,16,21	180:22,25	251:1,11 252:2
57:20,23 58:19	110:24 111:10	181:4,6,9	252:8,10,13,18
58:24 59:2,3,7	111:17,19,23	188:17 195:23	252:21,25
59:13,16 60:15	112:11,23	196:9,25 197:3	253:1,2,4,6,7
64:19,21 66:9	113:2,7,11,14	197:18 198:2,5	253:13,17,22
66:12,15,18,20	113:21 114:7	201:25 202:2	253:23 254:3
67:19,21,22	114:10,13,22	202:11,14,18	254:10,13,18

## [hearing - immediately]

254:20,24	highest 226:16	hope 253:11	hydrocarbons
255:1,6,9,10	highlight	hopefully 237:9	68:18,25 82:18
hearings 29:25	136:22 137:19	horizontal	84:20 93:5
186:11 229:7	226:6 249:15	65:10 72:24,25	221:6
<b>height</b> 214:9	highlighted	120:1 124:5,10	hypothetical
216:10,12	126:9,15	143:16 152:5,9	78:7
<b>held</b> 108:14	132:19 135:16	152:11,20	hypothetically
118:16 119:8	164:21 216:22	153:1,1,7,16	79:11
191:17	228:24 229:2	158:20 162:3	i
<b>help</b> 30:25	highlighting	165:13,20	idea 103:2
86:25 152:23	132:19,22	175:7 187:25	222:17
182:2	133:1,17	189:9 191:1,8	ideas 89:24
<b>helped</b> 52:10	161:16 249:11	191:12 193:1	identical 205:6
helpful 20:16	<b>history</b> 109:10	193:23 205:9	identification
23:23 43:11	189:14 190:1	212:17,20	37:19,24 38:4
94:25 107:5	<b>hold</b> 40:16 84:4	222:6,10 230:4	38:9,14 42:3
154:20 253:23	91:22 97:22	<b>hotter</b> 220:17	42:20 44:8
253:25	127:14,16	220:18 225:25	identified
<b>helping</b> 183:12	134:6 141:18	hottest 226:6	182:7 192:5
<b>helps</b> 144:3	173:16 244:12	226:16	212:20
<b>hereto</b> 256:15	holder 90:2	<b>hours</b> 188:25	identifies
257:11	130:16	246:21	220:22
hesitate 56:6	holdings	<b>house</b> 35:15	<b>identify</b> 199:10
72:7	181:16	57:6 75:2,14	219:5
<b>hide</b> 194:14	<b>hole</b> 93:5 139:6	<b>hsu</b> 205:23	ignore 245:10
206:15	199:7 222:8,12	<b>hudson</b> 118:13	ii 206:21
<b>high</b> 75:18	holidays 35:21	119:8	illustrated
78:23 220:24	holland 2:6	<b>huge</b> 148:16	230:12
<b>higher</b> 79:25,25	hollandhart.c	<b>hundred</b> 191:9	image 220:1
85:23 219:5,6	2:9,10	191:10 197:23	<b>imagine</b> 186:17
219:14,17	home 127:21	hundreds	immediate
221:17,18	honest 178:15	193:20,20,20	169:24
226:2,2 232:6	180:11,16	hurdle 52:9	immediately
232:14	honestly 104:7	<b>hurt</b> 125:12 194:4	144:20 226:9

### [impact - interest]

impact 68.20	106.0 16 218.6	242:10	initially 43:25
impact 68:20 84:21	196:9,16 218:6 239:24	induced 47:3	113:20 117:19
impaired 27:14	includes 72:17	industry	146:10 147:12
impairing 52:4	73:14,23	123:14,23,24	148:20 171:16
impediments	133:11 201:3	124:4,4,7,19,22	176:10 207:6
212:20	including 44:3	124:25 125:4,8	input 82:4
implemented	96:2 120:22	125:22 126:2	inquired 35:17
125:16,18	240:7	140:5 148:18	108:22 244:10
implying 197:6	incomplete	149:5,10 150:6	inquiry 97:4
important	200:25	150:7 189:10	244:17
28:17 79:8	incorporate	189:15 190:2,4	inroads 186:17
204:17 255:4	83:20 131:2	202:25	instance 128:20
impression	incorrectly	<b>inform</b> 187:5	163:23
138:14	168:9 194:15	information	instances
impressive	242:6	23:22 24:2,24	191:23 201:10
98:18	increase 125:5	26:7 29:3	instructed
improper 97:18	125:10 163:21	56:14 79:13	187:5
98:2	165:6,11,11	84:1,6 85:2	<b>intends</b> 249:24
inability	increased	133:12 136:21	<b>intent</b> 87:9
158:25	163:20 168:17	140:16 184:23	249:10
inaccurate	increases	184:25 197:24	intention
97:21	164:24	199:4,10 233:9	195:17,18,18
inappropriate	incremental	244:25	195:21 198:2
97:4	71:9	infrastructure	239:20
include 19:15	independently	196:22	interest 21:17
19:15 30:6	21:7	inherent 76:1	21:20,21,25
41:18 57:18	indicate 21:5	inherently	22:3,5,17,18,22
58:23 65:1,7,8	71:7	104:10	24:1,2,15,22
66:6 74:12	indicates	initial 18:23	28:4,7 29:20
89:3 178:23	221:10	19:13 35:20	31:11,14,15
247:13	indicative	38:17 146:24	52:2 77:4
included 26:5	221:15 226:1	147:15 149:11	84:19 88:12,14
26:20 66:4	individual	149:17 150:2,3	90:2,11,20,21
74:13,18	34:21 36:25	176:10 185:2	92:16 93:4
169:10 170:17	73:15 141:5	244:17 245:13	94:9 95:12,20
			,

### [interest - issue]

102:12,24	178:16,24	interpretations	invests 76:23
103:25 108:12	179:5,14,21,25	224:1	involve 225:17
103:23 108:12	180:3,5,9,13,14	interpreted	<b>involve</b> 223.17 <b>involved</b> 87:12
117:14 118:5	180:15 183:9	220:1 229:10	95:18 140:17
118:13,14,15	184:16 188:2	interpreting	161:14 193:3
118:19,23,24	192:21 196:1	225:18,19	201:7
119:4,7,10,19	203:16 204:18	interrupt	irrelevant
119:4,7,10,19	204:19 205:6,8	201:20	204:1
120:1,4,5,8,9	205:9 206:16	interrupted	isopach 7:5
120:12,14,18	207:12,14,18	129:10	8:17 9:23
120:12,14,18	227:2,5 232:6	interval 62:15	11:12 12:19
126:10 130:1	232:15,16	62:16,21 63:13	14:11,19 56:10
130:16 132:12	239:8 241:21	65:12 73:8,9	56:13,18,23
130.10 132.12		73:15 82:1,23	, ,
	250:3,13,21 251:9,14 252:4	102:6 103:12	57:1,11,18 59:25 213:8,12
133:12,13,13 133:21 135:15	, ·		· / /
	252:6,15 <b>interested</b>	103:13,20,21 172:15 215:4	213:18,22
135:22,24	146:14 238:22		215:15,18
136:4 137:4,25		216:5 217:6	216:1,4 217:4
138:18 139:23	256:15 257:12	218:15,22,22	217:15,22
143:19 145:14 145:24 146:15	interestingly 189:19	229:8,11,16,17 248:16	218:3,7,10,11 218:25 219:4
	<b>interests</b> 13:19	intervals	
148:14 154:1,3 154:9 160:17			219:14,24
	15:19 30:4 120:22 133:18	213:13,13,14	225:16,21
161:4,13,23		213:16,18	227:9 229:9,15
162:7,8,10,13	160:10 161:8 170:13 227:6	214:24 215:6,8	229:17,17
162:21,23		215:25	isopached
163:5,17,21	238:16 241:23	intrinsic	229:8
164:4,20,24	249:23 250:8,9	200:12	isopachs 57:15
165:20 166:4	250:15,16	introductory	57:17 58:5,9
167:5,6,11	251:24,25	107:20	issue 21:23
168:6,10,17,21	internal 77:9	inundated	22:4 28:23
169:14 171:14	internally 58:6	201:13	30:12 31:1,16
171:15 172:25	interpretation	invested 76:11	31:19,21 32:2
175:13 177:13	225:17,22	investigation	32:16 33:2
177:21,24	226:17	217:9	45:10,11 99:19

### [issue - know]

103:9 127:19	<b>jim</b> 6:19 8:9	110:14 115:2	know 19:6,22
131:18 168:11	11:4 13:14	115:10	26:16 28:12
233:3 240:13	77:17 87:21	judgment	29:12 30:19,24
244:6 246:8	88:3	200:17	33:11 35:21
<b>issued</b> 29:23	<b>joa</b> 169:19	<b>jump</b> 148:16	39:1 43:1 45:9
138:19 144:15	183:5,6,25	juncture 170:7	47:17 52:15
204:3 250:19	184:6,12,14,14	<b>justify</b> 192:20	59:19,19 61:21
<b>issues</b> 30:14	184:18 185:5	193:8,9	63:4,22 65:15
32:11 34:10	185:12 186:2	k	70:3,5 79:24
53:15 96:8	186:15,19	<b>k</b> 110:20	81:10,17 83:1
97:1,1,10 98:7	187:17,19,20	kaitlyn 3:3	83:6,8,9,9,12
100:18 210:21	188:11 203:10	21:11	83:12,17 84:22
244:3	203:10,12,25	<b>kaiya</b> 243:1	89:6,24,25
it'd 65:18	204:1	keep 16:13 18:1	92:7,8 93:24
224:18	<b>joas</b> 158:23	31:21 171:9	98:16 102:13
<b>it'll</b> 116:19	183:13,17	241:8,12	104:7,25 107:4
237:16	186:23	key 136:20	111:25 112:14
<b>item</b> 29:11	<b>job</b> 1:23 51:23	137:18 219:13	112:21 117:12
116:3	<b>john</b> 85:25	kickoff 199:7	118:1 123:4,16
items 112:5	115:11	kind 46:2 68:6	123:17,17,18
j	<b>join</b> 160:3	68:21 72:11	125:23 127:24
<b>j</b> 110:15	joinder 146:4	85:1 102:11	133:23 134:15
jam 188:5	159:20 186:11	121:22 122:21	135:5 136:25
james 1:22 16:8	186:19 203:15	123:20 124:17	140:14 141:5,8
256:2,18	203:18	155:20 163:15	142:1 144:7,11
<b>january</b> 1:14	<b>joined</b> 147:22	167:12 169:19	146:1,2,11,12
16:3 25:17	<b>joiner</b> 169:22	173:3,4 178:11	147:14,21
36:11 40:19	<b>joint</b> 146:3,13	179:5,13	148:15,19,22
95:9 142:11	160:1,3 170:3	192:18 199:10	149:21 150:8
147:6 149:18	185:2 186:7	201:10 221:22	151:3 152:4
149:21 150:23	187:23 247:18	230:25 231:9	153:5 155:19
157:7 233:11	jordan 3:14	232:8	158:1,24 159:5
244:20	4:19 6:5 7:16	knee 52:14	159:7,12
jerk 52:14	9:5 10:12	127:24	160:10 161:24
127:24	11:23 109:24		162:3,19 163:2

## [know - length]

	I		I
165:3,15,16,19	245:2,2,9	landman 6:5	245:2
166:13,14	246:9 252:18	7:16 9:5 10:12	lateral 64:6
169:12,15,17	254:4,22 255:3	11:23 15:8	72:22 73:12,18
169:18 170:8,9	knowing	35:3,5 45:11	74:21 94:24
170:9,11,13	207:14,17	46:19 47:1	175:14 222:12
173:5 174:5,6	knowledge	65:6 90:1,8,11	laterals 60:19
176:18 178:5	87:20 91:11	90:11,21	60:24 61:1,9
178:11,12,13	115:19,22	102:11 103:24	65:9 193:8
181:17 182:1	126:6,7 200:12	105:12 109:25	latitude 112:4
184:10,15	209:19 256:10	111:9,10	<b>law</b> 98:11,13
186:4,15,16	257:6	113:19 115:11	122:3,7 253:9
188:1,23	<b>known</b> 133:10	116:10 121:13	<b>lay</b> 51:13
190:25 191:2,2	knows 234:22	122:2,3,12	112:16 192:17
191:4,16,20,22	1	123:3,19,20,21	<b>lead</b> 94:18
191:23,25	l 69:24	133:8 183:14	200:5
192:12,13,14	labor 45:25	186:5 195:7	lease 108:13,13
193:19,21,21	47:4	200:2 236:24	138:17 139:10
196:24 199:5,6	lajitas 13:23	244:21 246:2	142:4,13 143:9
199:9,9 200:13	149:16 150:25	lands 26:9 30:5	159:25 160:2
200:20,21	land 61:20	30:6 54:22	192:13
201:7,9,10,11	81:10,15 92:10	60:20 70:10	<b>leases</b> 138:19
201:12 202:9	92:19 104:8	143:23 144:3	143:12,22
202:23 203:20	122:12,15	147:13 172:21	159:2,10 197:7
206:16,22	123:18 131:20	186:9,15	leasing 138:15
208:1,5,9	132:1,15	language	<b>leave</b> 17:15
211:3,25	135:17 138:6	117:20	44:17 51:2
212:25 216:11	138:11,22,24	large 34:1	85:12 94:4
218:19 219:12	139:11,14	220:21	119:15 246:5
222:5,7,15,23	142:4 143:11	larger 192:24	<b>left</b> 19:16 53:22
224:7 225:5,16		largest 154:8	188:25
230:5,19 232:8	143:13 178:4 178:21 195:14	205:7,8	<b>legal</b> 32:11
236:4 237:2		lastly 120:15	102:21 234:20
239:20 241:16	195:14,19	late 20:4 21:13	legs 175:14
242:12 243:4	196:23 226:22	28:23 86:7	length 72:22
244:23,24	<b>landing</b> 31:12	189:24 194:23	73:7,8,9,12
·	96:4		·

## [length - looked]

77:20 173:20	limited 72:20	60:24 86:25	224:25 225:10
lengths 73:15	84:12 123:8	110:9 113:8,8	231:9
73:18 175:15	206:21	124:13 126:21	log's 224:21
lengthy 109:9	limiting 19:18	136:19 137:13	<b>logging</b> 222:11
<b>letter</b> 148:12	line 157:24	156:21 164:15	222:16
149:4 163:12	197:19 222:12	165:12 166:2	logistics 35:22
177:19 200:2	230:6,11 231:4	173:4 182:3	logs 219:23,23
234:1	<b>lined</b> 88:25	185:11 186:2	220:1,2 221:24
letters 6:12	<b>lines</b> 85:2	215:1 226:4	222:4,7,8,24
7:10,23 8:22	<b>list</b> 7:11 8:23	230:17 231:5	223:1,1,5,8,17
9:12 10:6,19	10:7 11:18	<b>live</b> 188:6	223:20,21,23
11:17 12:8,24	12:25 66:10	254:8,15	225:3,7,18,19
194:18 199:14	78:22 79:7	<b>living</b> 118:13	225:22
199:16 200:18	85:24 126:19	119:8	<b>long</b> 60:19
level 75:18	127:2 132:6	llc 2:2	85:25 107:24
104:15	135:21,23	<b>llp</b> 2:6	108:4 144:22
leverage 51:21	137:3,5,11,25	locatable	197:5 201:4
lewis's 118:13	177:23 179:15	126:11	longer 140:22
licensed 122:4	194:8 247:6	locate 81:24	192:25 193:8
<b>lifting</b> 190:20	249:13	163:8	look 26:2,19
lightheaded	<b>listed</b> 129:5	located 22:5	28:16 34:19
156:21	130:1,4,5,6,7,9	168:9 219:6,6	39:17 40:20
<b>likely</b> 65:12	130:10 131:21	location 1:17	71:3 103:19,21
118:1,2 144:11	132:1 133:11	6:7 7:18 9:7	108:13 154:18
172:20,23	138:7 194:8	10:14 11:25	161:24 162:3
<b>lime</b> 224:19	198:11 237:7	13:15 22:16	164:22 178:25
limestone	listening	90:10 139:7	198:14 199:11
220:21,25	159:12	199:7	200:3 214:7
221:16,17,18	<b>lists</b> 238:17	locations 144:2	215:2 222:1
223:7 224:13	239:8,9	193:25 196:18	225:21 227:15
224:17	lithology	199:24	227:16
<b>limit</b> 193:23	220:22	<b>locator</b> 14:7,15	<b>looked</b> 145:10
limitations	litigation 49:13	<b>log</b> 67:12	180:14 189:18
64:8	<b>little</b> 19:20 34:1	216:11 222:22	192:11,17,17
	48:23 52:12	223:7 224:7,12	

## [looking - major]

		I	
looking 23:1	146:11,11,18	252:3,8,12,19	147:3,8,11
24:25 40:22	147:24 148:23	luck's 89:12	148:18 149:5
48:9 53:22,23	162:15 165:25	249:20	149:13 150:21
60:4 65:23	188:4 191:3,22	luck.kaitlyn	151:2,6,21,24
79:11,15 93:15	196:22 222:13	3:6	152:7,10,19,21
94:15,16 123:5	louder 113:8	<b>lunch</b> 156:10	153:8,23
126:24 128:3,3	119:2 166:8,10	156:16 157:25	159:17 160:8,8
128:11 130:21	166:16	m	160:16 161:10
132:10,11	louisiana	<b>m</b> 2:5 69:23,24	161:17,20
136:3 145:15	210:23	ma'am 54:18	162:25 164:2
145:22 162:1	low 190:21	55:15 69:23	206:18 207:4,9
192:14 196:20	231:1	70:9,12,15,18	macha 15:8
199:1,4 228:10	lower 21:24	70:21 71:4,15	33:8 39:14
228:18 232:11	31:12 62:3,24	71:18 87:16	46:24,25
239:24	75:5 81:18,22	89:22 95:22	236:23 237:18
looks 28:14	82:16,18 84:16	96:3 99:25	240:24 246:2,8
40:24 58:11	88:14 103:11	100:3,6,9	macha's 173:12
61:8 63:22	215:3 226:19	105:3 121:24	<b>made</b> 16:24
67:3 72:13	250:11,22	122:3,10,14,14	94:4 123:1,3
85:24 116:9	luck 3:3 4:11	122:17,19	127:19 138:17
120:15 130:13	4:18 21:10,11	123:11 124:1	146:2 177:20
137:10 145:22	21:22 22:10,20	124:16,20,24	186:4 192:21
164:8,9,10,18	22:23 23:4	125:1,25 126:3	194:17,17
164:21 182:20	24:11,19,20	126:12,16	195:2 207:9
182:24,24	25:3,7,12	127:5 130:18	231:3 240:24
183:5 196:12	28:11,13 29:7	131:13,16,22	246:21
199:12,12	33:17,22 66:18	132:3,9,16,22	mailing 7:11
214:6 228:23	66:22 67:19,21	135:19 137:22	8:23 10:7
231:3,4	86:19,20,23	138:2,8,14,23	11:18 12:25
<b>losing</b> 222:13	89:7 91:17	139:2,5,9,12,16	26:4
<b>lost</b> 143:4	92:3 94:8	139:20,23	<b>main</b> 169:21
232:9	167:25 179:1	140:3,8 141:10	maintain
<b>lot</b> 35:21 43:2,2	235:21 249:22	142:14 144:17	142:13
43:3 123:22	249:22 250:3,5	144:23 145:1	<b>major</b> 96:17
140:22 144:1,5	251:5,15,16,22	145:25 146:21	236:14

## [majority - mean]

mojonity 61.1	monnon 52.15	70.16.20	66.16 90.9 0
majority 61:1	manner 52:15	70:16,20	66:16 89:8,9
90:2 95:20	58:15 193:14	146:25 212:11	101:8,9,11,14
162:13,21	244:19	216:7 217:23	157:8,9 167:20
165:15,18	map 6:7,8,17	market 191:8	167:22 168:3
167:6,11 227:2	7:18,19 8:7 9:7	marketing	173:18,21
227:5	9:8,17,21	13:20	174:1,7 179:1
make 33:11	10:14,15,24	markup 184:14	179:7,10
55:21 63:11	11:10,25 12:4	mary 257:2,15	180:18,23
66:10 71:21	12:13,17 14:7	<b>massive</b> 165:10	205:13,20
73:2 74:3 85:9	14:13,15,21	masters 49:12	206:4 227:22
85:10 92:1	58:17,20 60:5	material 211:4	227:23 228:2,5
114:2 127:13	60:8,11 77:16	224:19	228:9,15,17
127:21 129:16	213:8,12,18,22	<b>math</b> 80:16	229:18,23
137:12 146:15	214:16 215:13	224:13	231:18 238:13
147:15 165:12	215:15,19	mathematically	243:20 247:5,8
170:6 181:21	216:1,4 217:2	166:1	247:24 248:1,6
186:17 187:12	217:15,22	<b>matrix</b> 223:7	248:19,23
206:25 210:6	218:3,7,10,11	224:8,11,13,16	249:4,7,10,16
216:18 224:1,4	218:16 219:4,9	224:17,18,19	249:19,21
224:10,15	219:21,24	225:1	250:2 251:11
229:13 230:15	220:9 221:20	matrixes 224:9	251:13,19
231:1 239:24	226:5 227:9	matter 1:5	252:23,24
240:21 246:19	229:15	31:17 54:17	253:2,5,10,17
246:24 253:24	<b>mapped</b> 218:14	88:6,8 148:18	254:1 255:6,8
255:1	maps 6:25 8:15	171:9 197:17	mckenzie 2:16
<b>makes</b> 88:17	56:10,13,23	197:20	<b>mean</b> 19:4
92:4 94:16	57:1,11 58:10	matters 98:18	31:19 35:12
192:3,4 193:2	219:25 221:21	121:13	62:19 88:11
231:17	225:16	<b>max</b> 34:6	102:24 105:25
making 94:14	march 36:7	<b>mba</b> 49:2	124:24 134:1
234:17 239:17	marginal 194:3	<b>mbbl</b> 78:10,11	134:10 140:24
240:14	marked 37:18	mcclure 3:10	142:7 148:18
<b>manage</b> 212:24	37:23 38:3,8	4:10,22 5:6	151:18,19
management	38:13 42:2,19	16:8 64:20,21	153:13 161:25
135:17 204:15	44:7 55:7 67:5	64:24 66:7,13	162:2 177:18
		·	

### [mean - mixing]

150 14 150 10	224.22	1111 (2.0.0	1 1 1 106 10
178:14 179:12	mercy 234:23	<b>middle</b> 63:8,9	<b>minded</b> 186:13
186:9 190:6	<b>mere</b> 186:16	63:10,16	<b>mine</b> 106:7
194:2 201:20	<b>met</b> 74:17	<b>mike</b> 3:15	229:19 241:14
214:5 216:3	<b>method</b> 187:23	109:25 171:8	mineral 132:14
220:14 221:22	203:15	172:9	139:1 143:19
228:14 234:22	methods	<b>mile</b> 61:1,6,9	minerals 1:2,17
236:9 244:14	220:11	76:8,12,16,23	132:20 138:10
244:15 249:22	mewbourne	76:25 77:5,9,9	138:12,22,25
250:2 253:18	77:19 116:5,7	77:11,13 78:6	139:19 143:12
254:13	130:16 175:7	92:18 93:1,1	158:4,8 178:3
meaningless	206:19,20,21	94:11,24	178:10,14
186:23	206:24 207:5	124:13,14,14	minimum 47:8
means 19:8	207:10,20	152:9,12,13,14	<b>minor</b> 80:9
66:20 132:19	231:7	152:24,25	111:15
136:22 137:19	mewbourne's	153:5,6,6,10,11	minority 52:2
167:4 221:1	77:20 206:16	175:10 185:7	162:8 167:4
measure	206:23 207:18	185:12,18	<b>minute</b> 46:14
102:15	mexico 1:1	190:5,5,5,6,9,9	94:25 95:4
measurement	52:13 105:1	249:13	127:16 243:21
214:13 222:15	123:4,9 132:24	miles 60:19,21	<b>minutes</b> 254:25
mechanical	134:3 153:22	60:22 77:22	miscellaneous
222:11	256:20	93:16 108:25	248:9
mechanism	microphone	<b>million</b> 78:10	misleading
190:20	49:20 69:10	78:11 147:1,2	200:18
medical 46:2	110:8,10,25	147:10,10	misquoted
<b>meet</b> 143:9	119:3 136:9	148:12,16,17	250:18
memorandum	166:7 208:19	149:3 150:1	<b>missing</b> 168:25
163:17	microphone's	151:17,17,18	misspoke 154:7
<b>mention</b> 189:17	30:15 238:13	191:3,4 202:23	<b>mistake</b> 117:23
mentioned	microphones	202:23,24	248:24
51:14 74:20	47:22 53:13	mind 22:24	misunderstood
87:13 89:2	microsecond	166:19 171:9	169:4
206:14 237:5	225:4,9	181:1 202:17	<b>mix</b> 193:5
mentioning	microseconds	233:5 241:13	<b>mixing</b> 241:8
245:25	223:14		241:12

### [mixture - nevertheless]

<b>mixture</b> 73:14	<b>motions</b> 127:25	nearer 148:1,2	<b>needs</b> 168:7
73:17	move 23:23	necessarily	169:9 178:4
<b>model</b> 187:25	47:8 58:7 59:1	32:6 77:8	197:15 239:21
modestly 79:25	59:19 60:15	123:19 133:19	240:18
modifications	61:7 91:19	149:1 159:24	negotiate
55:11 70:23	130:25 138:3	178:10	158:25 184:24
<b>modus</b> 169:19	143:6 145:10	necessary 50:3	203:9
183:17	158:6,9 159:8	50:5 114:2	negotiations
<b>moment</b> 22:24	166:2,3,23	159:19 172:24	51:21 122:13
53:11 138:15	194:5 195:12	179:3 246:25	145:11
141:1 157:12	197:25 206:11	necessity 187:2	neither 256:11
160:24 210:12	<b>moved</b> 36:13	<b>need</b> 18:16 35:8	257:7
228:8 241:20	movement	35:10 42:8	<b>net</b> 14:12,20
<b>money</b> 191:3	189:8	57:23 84:22	56:14,21 58:7
192:4 194:2	<b>moving</b> 141:4	85:9 86:25	58:9,13,14,16
222:13	169:20 190:18	97:17 107:1	60:2 217:15,22
monitor 112:9	muddied 103:4	110:25 114:2	218:7,10 219:4
<b>months</b> 19:21	n	114:13,15	219:14,24
19:21 49:16	<b>n</b> 2:1 3:1 4:1	116:16 117:12	223:4 225:16
83:19 140:12	5:1 16:1 54:8,8	128:13 142:12	225:21 227:18
144:21 148:7	69:24 110:15	144:4 159:25	228:24,25
201:9 202:8	110:23	166:21,21	229:2,10,12,17
<b>moore</b> 163:9	name 16:5 26:3	179:6 197:22	neutral 187:6
<b>mora</b> 214:8	26:5,21,23	198:21 209:22	187:10,11
morning 23:11	53:9 54:3,4,7	219:11,12	neutron 223:10
121:20 230:6	69:21 110:13	233:4 237:9,14	223:12,18,23
<b>morrow</b> 117:18	110:15,18	238:9,18	224:6,12,16,24
117:20 222:8	115:9,10	239:18,21	225:6,10
<b>motion</b> 16:21	156:11 209:9	241:23 243:22	neutronics
16:23 17:1,4	237:1 246:9,10	250:20 253:20	223:6
17:24 20:14	natural 1:2,17	254:1	neutrons 225:2
21:14 36:3,11	nature 45:3	needed 98:15	<b>never</b> 36:16
250:7 252:17	85:3 97:15	144:6	119:4 194:13
252:17	133:9 140:15	needing 241:24	nevertheless
	202:24		227:6

### [new - numbers]

new 1:1 18:13	<b>nop</b> 127:6	<b>notary</b> 256:19	noticed 17:17
27:9,20 30:6,6	norm 140:21	notary 230.17 note 184:23	29:16,18
52:13 105:1	normal 149:9	noted 108:22	116:21 126:11
		notes 182:2	
123:4,9 132:24	229:3		131:3,9,11
134:3 153:21	normalization	234:17	notification
184:14 240:7	74:24 75:2,6	notice 7:9,10	29:24 116:3
247:14 252:7	75:25 80:7	8:21,22 10:5,6	notified 178:4
256:20	normalize 75:1	11:16,17 12:23	november 86:8
newer 25:15	normalized	12:24 15:15,16	87:13 130:14
201:17	72:22 73:12	17:6,7,10,13,21	nrs 140:13
newspaper	74:21	18:4 19:22	201:11,12,15
234:22,25	normally	20:6 21:12,16	201:17,17
235:9	253:14	23:22 24:3,10	<b>null</b> 186:16
<b>nice</b> 196:21	<b>north</b> 2:7 24:13	24:15 25:21	204:11
241:18 249:22	24:13,13,14	26:5,15,20,21	number 14:5
250:3	30:7,7,7,8	27:5,8,8,12,19	25:25 39:17
<b>night</b> 43:8	132:13 143:20	28:23 29:22	49:23 65:24
242:12	158:12,12,16	31:1,16,19,21	71:3 72:20
<b>nine</b> 182:24	159:11,11,14	40:23 41:5	76:12,15,18
201:9 202:8	159:14 175:6,6	105:21,25	77:11 104:14
<b>nm</b> 1:21 2:8,17	175:12,12,20	106:3,12 116:5	106:5 116:20
3:5	176:22,22	126:19 127:2,7	117:2,8 118:3
nominate	181:25 182:1,5	127:19,20	120:16 133:17
158:15	182:5 195:12	128:11,14	141:20,20
nominated	northeast	129:5 131:18	151:18 152:17
192:9	116:24 117:3	131:20,21	153:18 163:3,8
nominating	164:6,13,19	132:2,6,7	173:8 196:5
138:20	165:17 171:19	133:25 135:11	224:24 231:3
nominations	northwest	175:8 177:24	250:18
138:16	118:4 132:13	178:10 187:8	numbering
<b>non</b> 188:3	143:20 158:16	194:18,19	41:2
201:8	171:21 174:8	202:12 233:3,8	numbers 16:17
<b>noon</b> 155:19	180:10 195:13	233:9,9 234:5	16:22 25:5
156:17	<b>nos</b> 1:9	234:14 236:17	30:5 32:21
		252:3,15	43:3 65:16

## [numbers - okay]

	I		
120:21,24	102:20 129:1,7	obviously	170:4 179:2
145:21 151:19	134:7 141:14	16:24 45:9	183:8
153:9 160:12	141:17,19,23	58:23 70:3	offered 123:8
214:8	141:25 142:17	111:25 114:10	211:19
0	142:19 154:24	140:13 143:15	offering 211:13
o 16:1 54:7	155:9,10 187:9	143:16 144:11	<b>office</b> 131:21
69:24 110:15	187:10 197:21	148:1 149:21	132:1,15 138:6
o'clock 156:18	240:11 245:7	158:18 159:1	138:11,22,25
188:22,24	246:6,19,24	160:1 161:18	139:11,15
oath 55:14	objections	161:24 163:10	142:4 143:11
71:14 112:24	17:18 18:6	163:13 176:15	143:13 178:4
114:1 157:21	37:9,12 42:11	186:15 204:7	206:24
object 25:11	42:14 43:24	246:17	officer 256:2
84:10 90:4	44:12,20 49:19	occidental	<b>official</b> 196:12
96:13,13	50:6 240:3	247:20	<b>offset</b> 24:10
102:14 112:8	242:23 243:4,5	occur 104:2,3	26:15 27:12
197:1	246:21	104:13 174:13	191:9
	objects 18:13	180:9	<b>oh</b> 35:11 36:3
<b>objected</b> 24:8 25:6	<b>obligation</b> 86:9	occurring	110:6 116:7
	observation	170:21 171:2	131:6 133:7
<b>objecting</b> 90:7	123:3	171:19,20,25	175:23 190:15
97:13,14	observations	174:16,19	220:13 223:5
<b>objection</b> 18:22	123:7	occurs 130:24	oil 1:3,6 13:20
24:4 25:1,20	observe 220:19	174:8	14:5 16:5 49:7
26:18 27:8,13	<b>obtain</b> 58:20	ocd 17:9 77:5	87:11 116:7
28:12 29:1	146:4 159:20	83:22 86:10	123:12,23,24
38:24 42:12	169:21 172:23	112:3,6,8,21	124:6 189:10
50:14 59:17	186:11	187:1 202:9	189:14,20,22
85:6,7,13	obtained	241:1,5	190:1,4,16
90:14,14,15,17	140:19 180:13	ocd's 17:9 77:7	191:8 206:24
90:19 91:7	203:16	october 24:25	211:5 218:19
93:9,19,19,21	obtaining	86:7	okay 16:20
93:22 94:4,7,7	203:15	offer 20:16	19:2 20:3
94:20 96:11,15	<b>obvious</b> 72:13	146:9,14	22:25 23:14
96:16,23,24	12000	163:12 169:24	24:23 25:4,9
97:17,17 98:20		100.12 107.21	
1			

## [okay - older]

26:1,12 27:15	90:13 91:13,19	142:4,15,25	212:1,2,15,23
28:9,24 29:15	93:6,12 94:19	145:10 147:9	213:6,12,17,21
30:10 31:9	96:7,14,22	148:8 151:11	214:14,24
32:15 34:9,23	97:5 98:19	152:8,14,17,22	215:6,11,24
35:1 36:24	99:23 100:10	153:3,9,17,24	216:3,13 217:3
37:3,8 40:20	101:5 102:10	155:25 156:6	217:11,17,19
41:3,20 42:9	103:8 105:4,5	156:10,18,19	218:1,25 219:9
42:15 43:5,23	105:9 106:25	157:3 160:9,18	219:20,21,23
44:15,21 45:6	107:19,23	160:25 161:11	221:8,18
46:6,7,21 47:2	109:18 110:2	161:21 162:12	223:20,25
47:14,21,23	110:12 111:1,2	162:22 163:20	225:11,24
48:1,7,9,15,21	111:4,6,10	164:11,23	226:9,16,22
49:8,18 50:14	112:11,23	165:22 166:2	227:4 228:16
50:19,24 52:21	113:14,15,21	166:24 167:16	231:15,18
54:5,22,25	114:6,7,21	167:19 168:1	232:23 233:12
55:4,13,19	115:25 116:15	168:11,20	233:18,22,25
56:19,23 57:10	119:6,9,12	169:2 170:16	234:4,7,12
57:17,25 59:13	121:7 122:2,6	172:1 174:20	235:3,15,22
61:4,23 62:11	122:11,15	174:25 180:18	236:3,13,20
63:7,25 64:15	123:7,12 124:3	181:6,21 182:7	237:13,25
65:14,25 66:7	124:12,17	182:10,19,23	239:2,5 240:10
66:13 67:9,16	125:2 126:4,4	183:1,10,12,20	241:7,25
67:18 69:7,13	126:13,17	183:24 184:17	242:25 244:5
69:25 70:10,13	127:1,6 128:1	186:1,21,24	244:20 245:5
70:16 71:11,19	128:5,9,18,18	188:8,14	245:24 246:7
72:19,23 73:19	128:23 129:6	189:17 194:11	246:12,16
74:3,20 75:12	129:12,15,23	196:5,15	248:22 249:6
76:7 77:20	130:11,15,19	197:18 198:1,7	252:2,13,23
78:4,19 79:7	131:6,17,23	198:18 199:20	253:7 254:3,5
79:14 80:6	132:4,17 134:5	201:2 202:11	254:12,24
81:3,9,24 82:5	134:23 137:7	206:4 207:5,11	255:7,10
82:15 83:4,15	137:24 138:3,4	208:3,11,18,18	<b>old</b> 140:16
86:16 87:12,17	138:9,24 139:3	209:25 210:12	222:9
87:20,25 88:5	139:6,10,21,25	210:15 211:7	<b>older</b> 223:8
89:3,7,23	140:4 141:11	211:13,20	
,	, , , ,		<b>01401</b> 223.0

### [once - original]

once 108:16	operates	186:22 187:7	<b>orange</b> 164:22
138:18,18	151:23 152:5	187:18 188:9	165:15
146:14 158:15	151.23 132.3		order 14:5
		<b>opine</b> 112:16	
192:19 201:22	operating 2:2	opinion 59:9	16:17 24:16
202:6 212:25	13:7,9 17:11	75:20 82:15	25:21 27:18
220:19 222:10	52:13 116:6	88:7,19,22	29:23 36:2,5
233:8 253:23	130:4,5 146:3	122:20 145:8	88:6,9,15,18
ones 236:8,9,10	146:5,13	215:7 217:19	138:17 142:12
252:7	153:10 160:1,4	219:5 227:12	144:6,15,23
ongoing 19:20	170:3 172:16	opinion's	146:16 148:5
online 86:7	172:18 179:16	211:25	158:17 159:15
onshore 14:4	179:18 184:15	opinions 123:8	170:6 185:21
ontario 189:21	184:16 185:2	211:13,16,19	187:22,24
<b>op</b> 201:8	186:8 187:23	opportunity	188:10 190:20
<b>open</b> 17:15	187:23 203:18	33:1,5 37:5	198:23,23
18:2,12,14	204:6,9,10	51:8 58:20	203:13,23,25
19:16 62:14	247:19	61:9 74:7,11	204:3 223:25
63:2,12,14,17	operation	74:15 98:23	235:18 240:5,9
65:17 92:9	204:15	108:24 114:18	240:24 245:10
95:12 158:17	operations	179:4 192:8	245:11 246:21
159:1,18	204:16	195:6 222:22	250:19 251:3
195:14 196:1	operator 116:6	245:3 246:4,18	252:3
222:8	116:7 127:22	opposed 16:24	ordering
opening 4:3,4	127:23 140:19	30:7 147:22	252:14
51:1,3,5,9,11	148:21 187:1,3	186:11 191:18	orders 18:1
85:11 105:19	190:10 191:24	opposing 41:13	105:1 144:13
107:22	201:13 204:8,8	43:8 44:11	203:17
<b>opens</b> 20:4 94:9	251:6	126:7	<b>organic</b> 221:1,3
operandi	operators	opposition	221:4
169:19 183:17	94:14 188:3	22:11	orientation
operate 151:25	201:18	<b>option</b> 77:1	72:12
152:12,15	operatorship	<b>options</b> 190:10	original 24:24
153:19 191:24	176:15 185:6	oral 254:22	25:2 150:4
192:1 203:22	185:18,23	255:1	229:7
	186:3,9,14,20		

### [originally - pads]

26.6		125.15 22 24	2.4
originally 36:6	overload 243:4	135:15,22,24	<b>p.o.</b> 3:4
233:3	overriding	136:4 137:4,5	pack 199:2
originals 163:9	133:13 135:23	137:25 145:14	package 200:25
ourself 159:21	137:5	145:24 148:15	214:9 229:13
outcome 71:7	overrule 59:17	148:25 169:14	242:7
77:3 185:8,20	197:20	177:21,24	packet 25:24
256:16 257:12	overruling 29:1	188:2 199:17	26:3,18 34:19
<b>outfit</b> 191:17	98:20	203:16 239:8	34:25 37:1
191:17	oversight	241:21	39:23 40:4,8
outline 15:19	194:12,17	ownership 6:8	42:17 52:7
48:16 161:12	195:10	7:19 9:8 10:15	55:2 58:24
outlines 154:21	overtures	12:4 61:11	71:12 106:14
outperforms	138:17	78:1,4 103:16	119:16 126:8
191:7	overview	116:15,17	127:3 128:17
outside 35:16	254:22	122:12 154:22	140:14 195:23
86:14 91:2,10	overwhelming	160:14 171:11	196:9,16
94:1 103:16	162:10 165:14	171:14 194:8,9	197:12 198:19
104:4,10 112:7	227:1,4	195:9 204:13	199:3 200:4,7
165:16 189:23	own 21:17 59:4	204:14 205:22	200:10,10,15
240:8	59:6 94:17	205:22 238:17	201:2,23 208:5
<b>overall</b> 31:5,7	138:25 139:23	239:9 241:22	233:7,14,14,16
119:20,21	162:15,16	252:4,6,15	233:22,23
120:22 163:21	172:24 180:17	ownerships	235:5 236:15
164:24 229:12	<b>owner</b> 28:7	166:4	238:19 242:3
overlap 52:1	52:2 95:20	owns 28:4 93:4	243:12 244:2
90:3 108:21	128:5,5 139:3	161:22 162:22	245:14,17
161:21 239:11	139:4 160:17	179:21 180:1,5	247:12
239:11,12	162:13 167:5,6	227:1,4 232:10	packets 34:21
overlapping	205:8 207:10	p	37:6,9 41:17
51:25 116:2,4	owners 6:11	<b>p</b> 2:1,1 3:1,1	42:24 198:16
162:23 175:9	7:22 9:11	16:1 54:7	229:4 233:13
176:15 241:22	10:18 12:7	110:23	242:10
overlaying	84:20 102:8		<b>pad</b> 196:17
229:10	126:11 133:12	<b>p.c.</b> 2:15	<b>pads</b> 144:2
	133:13,14,21	<b>p.m.</b> 157:7 252:14 255:14	_

### [page - percentile]

page 4:2 40:11	participate	parts 102:5	pennsylvania
40:25 42:7	146:7,13,16	party 20:4 21:7	189:24
49:23,25 65:14	169:23 183:25	21:9,12 146:7	<b>people</b> 186:13
65:16 71:3,5	participation	158:25 160:2	188:4 220:6,7
71:12 72:16	181:18 183:21	170:2,11 182:8	222:12
126:14,17	particular	186:7,18	percent 24:22
131:23 132:4	16:17 117:15	188:12 232:14	28:4 79:17
132:18 135:25	124:7 189:11	232:16 247:6	80:3 118:21
137:10 138:4,5	213:24 219:25	254:25	119:24,25
138:6 172:17	220:19	passage 169:13	120:4,5,8,9,12
172:19 179:17	particularly	<b>past</b> 57:8 141:6	120:13,18,19
179:19 228:12	225:8	203:17	150:2 154:10
229:19	parties 17:6	pathway	154:17,19
<b>pages</b> 106:21	19:7,14 29:16	239:22,23	161:22 162:2
145:19	29:18,21 30:4	patient 156:15	162:12,17,18
painted 51:19	36:10 44:21	<b>pattern</b> 192:16	162:19,23
<b>par</b> 197:14	96:8 97:11	patterns 123:6	163:19,25
paragraph	99:19 100:17	<b>paul</b> 163:8	164:4,7,25
116:1 130:22	109:5 116:4	<b>paula</b> 2:5 23:12	165:6 173:2
133:8 173:13	126:24 132:2	<b>pay</b> 14:12,20	204:25 205:1,2
173:14 216:19	133:9,24	56:14,21 58:7	205:3,4,5
paraphrasing	135:12 136:24	58:13,14,16	220:3,4,5,7,7,8
236:6	146:10,12,18	60:2 163:11	220:17 221:12
<b>part</b> 26:13	148:22,24,24	220:4,5,17	221:14 223:15
28:21 31:5,11	155:14,18	221:10 223:4	224:14,17,18
31:12 48:22	169:22 170:2	226:2 227:18	224:23 225:1,9
55:1 57:12	184:23 186:10	228:24,25	percentage
63:1 73:7 76:8	186:18 187:20	229:2,10,12	21:20 22:22
81:25 82:1,12	188:18 197:14	<b>pays</b> 58:9	118:19 154:22
82:16,18,20	237:24 243:21	<b>peak</b> 79:25	percentages
84:20 85:11	249:13 251:4	80:5	29:20 79:22,23
109:6 147:5	256:12,14	<b>pecos</b> 1:19	80:3
174:2 198:19	257:8,11	pencils 149:7	percentile
199:2 246:5	partners 77:4	pending 186:3	162:14
	158:24 187:16		

## [perfect - petroleum]

£ 4 22.25	70.5.00.10.04	100 1 107 0	4 4
perfect 32:25	78:5 80:18,24	180:1 185:8	perpetuate
33:24 39:24	84:16 85:1	186:17 192:24	159:9
48:15 110:24	86:9 90:1 92:7	193:16,21	perpetuated
117:11 193:3	92:15 94:16	194:7,11,21,24	118:3
236:3 247:23	95:19 96:17	196:5 197:9	<b>person</b> 110:5,7
253:7 254:3	97:10 102:15	198:8 199:1,23	232:24
perfected	103:9,15 106:8	200:6 202:21	personal 91:11
223:10	106:16 108:1,4	205:1,2,4	perspective
perfectly 45:8	108:8,17	206:16 207:12	17:9 79:19
45:13	109:15 112:6	207:13,17	<b>pertain</b> 116:18
performance	112:22 114:11	227:1,4 231:8	116:19
72:14	118:6,16,18	247:7,7,9,20	pertaining
performed	119:10,25	permian's 24:5	171:19 179:13
211:7,10	120:4,8,13,19	39:7 52:3	pertains 113:5
<b>period</b> 17:7,21	120:23,25	61:14 78:11	113:9 117:25
19:15 169:15	126:15 127:3	79:17 93:17	118:12 119:22
periodically	128:4,5,13,18	95:18 100:19	120:2,6,10,15
53:23 56:10	128:19,25	112:5 114:16	123:15 159:2
permeating	129:4 130:4,5	118:23 119:21	petroleum 2:13
83:2	130:9,10,16	121:1 129:25	6:3 7:3,14 8:3
permian 2:2	131:9,11,18	159:4 168:20	9:3 10:3,10
6:19 8:9 11:4	149:14,15	176:23 177:6	11:3,21 12:3
13:14,22 14:23	150:12,15,19	179:25 186:4	13:3,6 14:3
15:3,18,20	150:22 151:12	199:14 200:9	15:21 16:23
16:24 17:10	151:15 154:1,3	205:10,21,22	20:22,25 22:9
19:21 23:7,9	154:8 161:13	208:7 227:6	22:11 23:5
23:13 24:13,24	161:22 162:7	251:20	28:7,8 35:14
35:16 39:4,5,6	163:1,4 165:14	<b>permit</b> 196:7	35:17 37:16,21
42:18 43:24	167:5,11,14	199:22	38:1,6,11 42:1
44:6 45:5	169:12 170:21	<b>permits</b> 140:23	48:18 49:12
49:15 54:10	170:25 171:14	140:25 141:2,5	97:25 100:21
56:9 61:19	171:22 172:5	201:14	102:17 108:1
70:2 76:7,11	172:13,22	permitting	108:15 109:13
76:16,23,24	173:3 176:9,17	139:22 142:16	111:16,21
77:3,11,24	176:19 177:13		113:3 115:9,11
			,

### [petroleum - porosity]

		I	I
119:20,24	250:6	plenty 33:3	177:7,19 178:9
120:3,7,11,18	plans 52:1	34:4 235:8	181:23 182:4
120:23 122:1	77:25 90:3	<b>plus</b> 222:5,15	195:14 239:20
144:19 147:12	92:6 98:2	pmvance 2:10	241:25 249:1
193:22 210:16	99:20 100:8	<b>point</b> 22:19	pooled 24:16
213:9	108:7 109:7	24:3,12 28:13	88:12 133:9,18
petroleum's	187:16 192:6	28:14 29:16	135:22,24
21:14 108:9	244:21	61:8 68:6 82:6	136:1,1,5,6
109:3,10,14	<b>plat</b> 6:7,21 7:18	87:25 91:14,14	137:4,6,15
<b>pew</b> 117:15,18	8:11 9:7 10:14	92:2,17 94:7	138:1 146:15
117:20 168:9	11:6,25	101:10 112:4	181:25 182:5,7
<b>ph</b> 117:15,18	<b>plats</b> 13:16	116:1 127:13	182:13 184:1,7
117:20 168:9	198:14	127:19,21	249:14 250:8
physically 64:4	<b>play</b> 190:17	134:10,18	250:10,16,19
<b>pick</b> 74:4 111:1	pleading 243:8	137:15 170:7	250:22
136:8 191:19	please 42:23	185:11 186:2	pooling 14:24
<b>pie</b> 85:25	47:24 53:8	186:21,24	15:6 26:16
<b>pilot</b> 125:14,17	54:2 56:5	199:7,23 202:3	32:7 105:1
<b>pinkie</b> 85:24	57:21 66:12	202:4,8 204:14	132:10 133:2
place 22:6	69:22 71:2	204:22 211:24	133:17,24
143:4 187:22	72:6 85:18	240:22 245:6	135:5,10,12
211:5	88:21 89:16	250:18	173:11 175:16
<b>places</b> 53:17	95:13 102:9	pointed 84:18	188:9 194:22
<b>plains</b> 13:20	107:21 111:3	193:22 197:8	195:17,19,21
<b>plan</b> 31:8 52:3	113:17,22,23	197:25 202:21	203:10,11,12
76:9 78:5	114:18 115:8	pointing	203:12,17,22
83:16,23 84:1	127:16 128:8	137:24	204:3 248:2
84:24 95:18	128:12 129:24	political 122:9	251:3
96:18,19,20	134:4,6 136:9	<b>pool</b> 30:18 32:8	<b>poor</b> 109:12
97:8,11 108:2	141:25 142:2	131:14 132:20	porosities
109:1,3,8,15,16	143:2 167:24	132:24 134:3	225:6,6
121:6 149:11	173:16 185:16	135:17 138:12	porosity 56:20
193:10	208:20 209:8	159:15 170:5	58:7 60:2
planning 81:10	219:11 228:12	173:7,9 174:21	68:18,24 220:2
81:14,18 92:19		175:1,4 177:3	220:4,5,6,17

## [porosity - prior]

221:13,14,22	nn 11.9 17.1	nrohooring	proggad 110:0
, ,	<b>pr</b> 41:8 47:1	prehearing	pressed 110:9
221:23,24,25	51:18 72:25	18:1 29:23	presume
223:3,11,13,21	87:10 244:23	36:2,4 235:18	219:13
223:25 224:2,4	<b>pr's</b> 78:17	240:4,9,24	pretty 32:12
224:14	79:24	246:20	123:17 150:7
portion 21:24	practice 122:4	preliminary	162:1 164:9,10
81:22 178:21	148:19 149:6	29:13 30:14	191:13 220:8
250:11,21,22	149:10	34:10 51:15	224:23
portions 87:14	practices 125:9	86:4 198:12,13	prevail 144:19
88:13 250:10	<b>pre</b> 114:20	236:7,10	158:14 204:7
<b>position</b> 19:6	precedent	premature	prevails 185:23
23:18 93:17	19:11	185:12 186:2	204:23
115:9 166:14	precedential	203:25	prevent 62:14
positioned	19:19	prepare 35:4	63:16,23 109:8
202:5	precision 98:17	35:12	193:14
possibility	predated	prepared 33:23	previous 155:7
18:15 78:8	189:22	54:25 55:4,17	192:7
possible 35:19	predecessor	70:13,19 71:17	previously
35:24 80:10	129:25 130:6	139:13 217:11	24:12 54:13
82:14 115:21	180:2 194:9,16	217:14,22	70:4 74:16
200:10 238:20	predecessors	237:14 247:16	111:7 112:20
240:20 244:10	130:6	257:3	112:25 207:19
245:3,4	predominant	present 3:9	250:16
possibly 38:19	162:7	33:20 51:9	<b>price</b> 147:1,9
188:3 196:20	predominantly	105:13 107:25	147:25 148:16
197:14 248:18	124:9	110:5 215:15	149:3
252:5	prefer 77:7	240:6,25	<b>prices</b> 148:9
<b>post</b> 253:4,6	preferable	presentation	<b>pride</b> 191:25
potential 68:18	187:22 203:15	241:1	primarily
71:7 108:11	203:17	presented	77:18
160:6 181:18	preference	211:17	primary 71:6
221:5	76:21 146:4	presenting	79:1,12
potentially	prefers 183:25	109:6,6	<b>prime</b> 65:20
69:1	184:6	preserve	<b>prior</b> 18:4
		252:20	19:12,12 38:22

### [prior - provide]

194:22 203:25	produce 68:20	9:12,14 10:19	169:18,18
250:7 256:5	69:2 82:18,23	10:21 12:8,10	173:6,6 177:18
priority 78:23	84:8,18,19	108:6,16	181:18 183:22
148:3	87:10 125:23	146:25 147:15	184:14 185:7
private 194:2	producing	148:13 176:9	212:21 217:5
privately	31:13 93:2,3	177:18 182:20	227:14 232:4
191:17	117:17,22	195:2,3 207:5	253:8
probably 43:3	<b>product</b> 62:1,1	207:13,19	proposes
63:22 125:2	62:25 63:12	proposals 6:20	147:12
150:1 172:10	production	8:10 11:5	proposing 76:7
<b>problem</b> 17:13	22:2 31:6 49:7	13:15,24 92:6	185:19 194:15
36:16 51:21	78:24 85:3	108:4,9,23	205:23
161:7 173:2	86:2,4,6,10	121:1 122:15	proprietary
procedurally	87:3 89:4	138:9 139:7,14	75:2,14 220:10
107:13	102:16 108:14	146:2,19 147:7	prospect
proceed 36:17	125:5,10	149:11,18,23	191:19,25
112:18,19	172:23 204:14	149:23 150:3,5	prospective
113:17 142:2	204:21 216:24	150:13,17,18	218:18
143:2 157:8	217:1,8 227:14	150:20,22,23	protect 109:8
233:1	250:13	150:25 151:9,9	125:17,19
proceeding	production's	151:13,15	193:15
185:13 255:15	22:18	171:12,16	protects 125:10
257:4	<b>project</b> 125:15	173:9 183:17	<b>proven</b> 125:14
proceedings	125:18 140:17	183:19 192:22	125:15
256:3,5,6,9	193:3,18 203:6	207:10	provide 23:21
257:6	<b>promise</b> 46:1	<b>propose</b> 176:19	26:15 27:11
process 51:20	<b>proof</b> 51:24	proposed 22:13	56:14,23 71:2
108:6 127:25	<b>proper</b> 17:6	54:23 61:14	84:6 102:22
129:9 141:4	240:18	65:9 70:11	116:3 121:7
143:23 144:4	properly	83:5 84:16	122:7,21 130:8
159:23 190:16	233:20	99:20 100:8	147:17 150:8
204:2	proportionate	128:20 146:3	177:24 179:2
processed	191:6	146:11 148:20	184:24 207:13
141:6	proposal 6:12	149:15,16	233:7 236:1
	6:14 7:23 8:4	165:20 169:17	238:21 244:18

## [provide - question]

	I		
247:17 249:23	pulling 39:12	226:19 227:7	92:3,4,11,13,14
250:6,14	129:14	227:10	93:9,23 94:8,9
253:12	purported	quantities	94:11 95:12,13
provided 27:4	30:18 173:9	102:5	95:14 96:13
27:13 39:14	purpose 1:7	quantity 78:15	97:3,3,6,7,15
40:11 48:10	71:6 213:21,23	quarter 116:24	97:19 98:24
100:1,7 112:4	purposes 118:5	116:24 117:3,4	99:12 100:16
115:12 116:5	171:15	118:4 132:13	101:6,16,21
121:9 126:19	pursuing	143:20 158:16	102:9,11 103:2
132:6 154:20	177:13	163:24 164:3,6	103:4,5 104:21
161:3 177:23	<b>push</b> 18:10	164:6,12,13,13	111:24 113:18
209:11 250:3	<b>put</b> 27:19 29:14	164:18,19,19	113:19 125:11
provides	44:22 57:15	165:6,7,7,16,17	128:24 129:2,3
136:21 161:12	178:19,19,21	165:18 168:13	129:10,19,21
<b>providing</b> 17:9	179:4 208:19	171:20,21	130:3 131:2
160:12	229:19 230:2	174:8,13,14,16	134:11,25
<b>prudent</b> 186:10	231:7 235:25	174:17,18	135:2,2,3
<b>public</b> 256:19	putting 64:5	180:10 216:22	136:11,16
publication	184:13 193:6	216:22,25	137:17 139:25
7:12 8:24 10:8	q	217:6,6 227:12	142:21,23
11:19 13:4	<b>q2</b> 190:23,23	227:12,17	145:17 161:6
15:16 127:7	qualified 48:2	quarters 150:4	166:22 167:2
128:12,14	48:2 50:9,16	162:9	167:13 168:4
129:5 131:20	109:20 112:10	question 23:1	170:24,25
131:21 194:19	112:15 237:2	27:2,3 56:5,5,6	173:19,21
233:8	256:7	56:7 57:24	185:15 186:1
<b>pull</b> 25:24	qualifies 220:4	58:21 59:22	193:18 199:19
34:20 38:19	qualify 197:13	62:5,12,13	203:7 205:16
52:22 145:16	199:2 209:10	64:1 66:19	206:10,15
149:15 163:1	220:5 227:16	67:24 68:12,13	207:16 208:3
163:23 170:23	qualifying 49:4	72:6,6,8 73:21	211:23 212:9
171:4 174:23	quality 140:14	74:6 80:21	214:3 223:2
208:20 217:17	218:13,21,23	83:11 88:21	225:24 230:10
230:17	219:5,6,17,22	90:5,9,11,12,16	230:24 238:5
	223:1 226:2,16	90:20 91:17	239:3 242:3

### [question - reasonably]

245:6 249:11	205:16	210:9,10,14	<b>reads</b> 133:9
250:25	<b>quicker</b> 169:20	211:20 212:2,3	<b>ready</b> 36:12
questioning	quickly 39:13	227:19 228:6,7	144:18 157:8
155:15 157:24	141:4 202:25	228:13,16	157:20 196:15
168:23 203:24	204:22	229:18,22	197:10
205:12	quite 58:1	235:12,14	real 22:3 53:17
questions 46:18	141:1 147:9	rankin's 204:4	62:11 204:22
56:4 59:6	<b>quote</b> 76:18	rate 79:25	realize 181:10
64:17 66:8,14	200:1	rates 78:24	183:12
68:3,5 72:5,11	r	80:5	realized 32:9
83:25 84:3,10	r 2:1 3:1 16:1	rather 103:4	realizes 134:18
84:12,25 85:4	54:7,7 110:15	184:1,6	<b>really</b> 30:25
85:6,8,14,16	110:20	rationale	63:4 75:23
86:18,21 89:10	radar 108:1	176:11 178:8,8	82:21 83:1,11
89:13,15 90:25	railroad 210:23	<b>raw</b> 220:1	111:1 129:17
91:15,16 92:9	210:25	<b>ray</b> 220:16,16	144:2 171:13
92:25 93:10	rainer 120:17	221:9	190:24 191:3
94:12,23 95:11	rainier 9:15	rex 4:6 5:2	191:20 193:25
95:24,25 99:17	10:22 12:11	<b>rdx</b> 4:6 5:2	197:15 223:9
100:25 121:22	120:3,11	reached 207:21	223:10 224:13
156:5 167:20	143:18,21	reaching	224:23 244:24
168:1 180:21	158:11 174:25	170:14,15	245:6,14 246:6
181:3 188:15	raise 47:24	reaction 52:15	250:20
196:6 197:2,19	111:2	127:24	reason 17:4
197:23,23,25	raised 97:1,10	read 15:4 22:11	28:21 31:1
202:15 203:8	98:7 238:24	22:13 23:9	169:23 170:10
205:14,14	ran 223:6	39:4 137:13	176:6,22
206:6,10 208:4	ranier 6:15 8:5	179:23 180:3	178:10 246:25
218:2 219:10	119:23 120:7	180:12,15	reasonable
219:20 227:19	rankin 2:4 4:23	189:14 226:4	73:6 80:17,18
227:21,24	5:5 23:12,18	reading 16:25	200:2 232:19
231:20,22	37:4 181:2,5,8	222:19 223:18	245:23
236:5 238:24	181:11,13	223:19 224:7	reasonably
<b>quick</b> 53:17	188:14 203:8	readings	146:5
62:11 201:8	208:14,15	221:24	

## [rebuttal - regards]

rebuttal 13:6	86:2 108:16,23	recorded	referenced
14:3 15:18	127:20 140:12	172:17,18	168:5 170:17
41:5,7,18,21	149:22 182:25	179:16 256:6	174:5 250:17
42:1 43:6,17	184:9,13,22	recording 16:8	references
43:19,24 44:4	200:2	256:8 257:4	248:3
44:6 52:7	receives 188:9	recovery	referencing
106:10 149:13	receiving 24:3	190:19	79:20 205:21
151:4,6,7,8	170:5	recross 68:15	referred 231:8
154:21,24	recently 49:14	98:24 100:14	referring 75:11
155:4 161:12	147:6 184:11	101:6,9 102:2	87:5 120:24
162:25 163:2,3	184:19	205:19 206:12	145:3 207:7
163:7 178:18	recess 255:12	<b>red</b> 230:6,11	228:20
180:9 211:11	reciprocate	redacted	reflect 61:6
217:12,14,20	241:17	163:13	reflection
217:23,23,25	recognize	<b>redder</b> 219:13	250:14
228:10,11	171:4 251:7	226:1	reframe 91:20
229:21 230:20	recognized	redirect 66:17	<b>regard</b> 192:24
233:14,16	111:7 113:15	67:23 68:1	204:23
237:19,21	reconvene	89:17 90:23	regarding 22:2
238:1 240:7	188:20	91:15 101:15	23:22 24:2
245:12,15,17	<b>record</b> 17:4,15	101:19 103:5	68:3 70:23
246:16,19	17:16,20 18:2	104:23 180:24	96:8 120:2,6
247:2 254:8,13	18:11,14 19:5	188:18 189:3	120:10 127:22
<b>recall</b> 60:1,4	19:16 29:4,15	197:1 202:15	133:12 138:22
136:2	31:17,22 34:8	205:14 232:1	139:14 143:11
recalling 60:7	53:9 54:3,17	reduced 256:7	146:2 150:13
<b>receipt</b> 194:23	95:5,7,9	reduction	150:17 153:25
receive 18:3	105:22 110:13	149:3	168:13 192:25
21:16 86:6	115:8 121:7	redundant	203:8 241:4
134:3 148:23	144:22 157:4,5	130:20	247:18
received 21:12	160:19 181:22	<b>refer</b> 21:23	regardless
24:9,15 29:22	187:12 209:8	61:20 65:5	103:24
37:19,24 38:4	240:19 255:11	reference	regards 120:16
38:9,14 40:19	256:9 257:5	172:13	123:1 128:15
42:3,20 44:8			141:1 200:18

### [regs - resources]

regs 201:21	remember	represent	resend 163:9
202:1,9,12	36:10 60:1	78:10 81:3	183:6
regular 56:10	113:22 179:24	118:13 168:16	reserve 211:21
regularly 76:23	180:12 197:19	187:4,8 218:20	reserves 113:6
regulations	207:23 208:19	representation	113:10,12
38:18,19,22	244:20	89:21 160:14	211:1,2,15
198:15	remind 48:3	177:21 217:4	reservoir 15:12
regulatory	157:20	representative	35:4,8,10,13,15
86:12	reminding	213:8	35:18 36:17,21
relate 103:2	246:20	represented	46:11 48:5,13
211:14 223:18	<b>remove</b> 42:23	118:16,24	48:23 49:4,9
related 95:25	render 121:12	163:7 199:17	49:16 50:11,13
100:1 101:21	repeat 18:23	representing	50:18 64:2
123:18 131:18	56:6 62:5	181:16	68:5 70:2 79:4
158:1 206:20	68:23 72:7	request 66:8	81:4 82:22
206:22 208:4	74:6 80:21	251:2	83:13 84:11
250:7 256:11	88:21 102:9	requested	86:15 92:23
257:7	113:23 114:19	184:25	93:2,3,14
relation 32:7	145:16 153:4	requesting	94:15 97:25
92:25	161:6 164:1	175:1 184:22	99:21,23 100:2
relative 256:13	repeated 18:24	requests 17:19	111:15 112:2
257:10	19:1,4	109:13	112:21 218:14
relatively 141:4	rephrase 56:7	<b>require</b> 159:20	238:21,24
relevant 30:20	72:7 103:5	159:22 160:4	240:6 241:6
38:24 87:8	152:1 184:2	233:3 235:24	244:7,8,17,23
reliable 112:14	185:15	251:2	245:1,11,18
<b>rely</b> 81:5	report 26:4	required 27:11	246:10,16
216:17	86:10,13	145:7 173:19	250:24
<b>remain</b> 185:13	116:22 194:8,9	198:19 240:24	reside 68:18
187:6,10,11	233:9	requirement	resolution
remainder	reported 1:22	86:10 185:2	231:1
143:22 163:14	179:18	requires 17:7	resource 35:16
164:21	reporter 16:11	research	resources 1:2
remaining	54:6 69:22	171:17 179:13	1:17 2:2 6:19
106:12	95:2 188:23	179:25	8:9 11:4 13:14

### [resources - rights]

		1	
13:23 14:23	respond 28:3	95:10 155:1	106:19,19,19
15:3,18,20	responds	198:24,24	111:3 118:2
17:11 23:7	112:22	201:1 209:15	126:24 128:22
42:18 44:6	response 94:20	reviewing	132:10,11
45:5 49:15	responsibilities	16:25 109:7	134:24 135:6
54:10 56:9	104:5	116:21	137:9,10 138:3
70:2 76:17	responsible	<b>revise</b> 238:18	139:17 140:17
77:3,24 78:5	104:6	revised 14:23	140:21 141:13
80:19,24 84:16	responsive	15:3,14 26:17	142:6 145:20
85:1 86:9	141:1	40:7,24 42:16	147:2 151:16
96:17 97:10	rest 143:21	42:18 44:4	151:22,23
102:15 103:15	164:8,10,21	106:10,14,18	155:8 157:6,20
104:9 106:8,16	restate 169:3	195:23 233:7	180:22 181:24
108:1,4,8,17	207:16	239:7	183:1,3,15
109:15 118:6	restatement	revision 115:21	184:17 185:22
118:17 119:10	167:12	115:23 116:13	186:23 193:4
119:25 120:5,9	<b>rested</b> 107:14	119:18 239:21	196:22 207:24
120:19,23	restricted	revisions 43:3	208:16 210:21
127:3 128:4,5	175:10	116:16 209:22	211:21 212:7
128:14,18,20	result 80:13	234:1 238:16	213:10 214:19
128:25 129:4	125:20	239:8 241:21	215:3,12,13,22
130:4,5 131:11	results 78:16	rick 227:7	216:1,2,20
171:14 185:8	78:18 86:2	<b>rifle</b> 191:18	217:25 219:3
192:24 193:16	185:13	<b>right</b> 16:15	221:6 224:4
194:7,11 196:5	resume 49:21	17:24 18:2	225:14,20,22
197:9 198:8	retained 179:3	25:15 29:8	228:15 230:23
200:6 202:21	review 19:5	30:11 34:1	232:25 233:7
205:1,3,4	37:5 42:13	40:6 43:16	233:12 234:16
227:1	83:22 99:15	46:13,16 47:19	235:5,6,10
respect 31:6	171:10,10	47:24 53:21	238:7 240:1,11
71:4 81:12,14	199:13 235:21	60:9 65:17,22	243:6,10,14
82:3 99:21	236:2 238:23	69:8 80:11	247:5 248:21
100:16 101:23	246:23	85:7 93:7	248:21 253:1
104:14 112:22	reviewed 23:3	101:13 104:17	<b>rights</b> 13:8,10
	23:4 43:20	105:6,16	52:4 84:22

### [rights - savage]

109:9 125:10	runs 172:21	sat 194:20,21	69:6 71:24,25
125:13,17,20	S	194:24	72:3 84:14,15
172:17,18	s 2:1 3:1 6:1 7:1	saturations	85:18,19 86:16
179:16,18	8:1 9:1 10:1	211:5	89:19,23 90:4
193:15 252:20	11:1 12:1 13:1	savage 2:14 4:4	90:7,8,15,19,22
risk 222:11	14:1 15:1 16:1	4:9,16,20 5:4	91:1,5,8 92:3,5
<b>robert</b> 115:10	54:7 69:23	7:9 8:21 10:5	92:17,20,23
rock 56:17	110:15,23	11:16 12:23	93:7,8,19,22
67:14 73:5	saint 1:20	17:22,23 18:9	94:1,5,8,10,10
193:5,5,6	samt 1.20 sake 170:15	18:19,21 19:2	94:23 95:11,24
219:6,17 224:8	sake 170.13 sale 172:16	19:9 20:3,11	96:11,12,16,24
226:2,16,20	179:16	20:23,23 21:3	97:6,7,14,18,21
227:11	sales 171:18	21:6 30:13,16	98:3,6,10,14,17
rocks 224:9	sales 1/1:18 sam 3:13 4:12	30:22 31:4,10	98:21 99:1,17
<b>role</b> 111:16	15:12 46:11	32:1,5,16,18,23	100:11,12,15
204:9	69:15,23	33:4,8,12 34:9	100:24 101:16
<b>rolled</b> 118:22	sample 6:14 8:4	34:11,16,20,24	102:1,3,20,23
<b>rolls</b> 247:4	9:14 10:21	35:2,9,14 36:8	103:1,7 104:17
<b>room</b> 77:23	12:10	36:14,19 37:2	105:18,20
rough 220:23	sand 67:13,17	37:13 38:16	106:1,7,11,15
<b>round</b> 242:19	<b>'</b>	41:7 42:5,10	106:19,22
<b>royalty</b> 133:13	171:7 172:7,8 213:20,24,25	42:12,16 43:18	107:3,9,12,16
133:13 135:24	, ,	43:20,22,25	107:19,23
137:5	214:9 215:10	44:24 45:1,4	109:21,24
rule 59:8	215:11 216:6,8	46:17,20,22	110:4 111:22
147:11 188:6	216:10 218:18	47:1,3,7,11,13	111:24 112:12
<b>rules</b> 17:7	218:21 219:6	49:19,21 50:6	112:19 113:17
19:10 86:11,12	220:23 224:19	50:7,13 51:8	113:19 114:6,8
235:16	sands 217:5	51:10 55:22,23	114:12,21,23
ruling 92:1	sandstone	56:2 57:20,22	115:7 118:10
run 222:4,5,7	224:16,17	57:25 58:3,19	119:14,15,17
223:7 224:8,12	sandstones	59:8,11,14,15	121:11,15,16
224:15,17,21	225:7,8	59:21,23 60:15	127:8 128:2
224:21 237:8	sandy 220:23	60:17 64:15	129:1,8 130:23
	santa 1:21 2:8	68:11,13,16	134:4,9,14,17
	2:17	, ,	

## [savage - section]

124.21 141.14	gavagala 60.2	gaigntist 96.24	99.2 0 90.2 4
134:21 141:14	<b>savage's</b> 68:3	scientist 86:24	88:3,9 89:2,4
141:19 142:17	89:12	scope 83:12,17	117:16,17
142:22 143:1	saw 26:22	86:15 90:24	134:2,6 136:2
154:24 155:4,6	47:25 129:4	91:2,10,16	136:9 139:18
155:10,15	192:10 242:24	92:4,22 93:1	143:5 149:19
156:19,20,24	244:22	93:10 94:1	149:24 175:6
157:2 166:6,10	saying 19:25	103:17 104:4	175:11,14
166:13 168:5	27:4,16,19,23	104:10 112:7	176:2,4,8,11,14
177:24 180:24	36:11,25 98:2	screen 38:20	176:25 177:7
180:25 181:7	107:11 114:14	47:15 50:3	177:10 199:22
189:1,2,4	114:16 144:13	126:5 157:15	214:17,18,20
197:3,4,22	149:9 153:21	160:20 210:11	214:22 215:12
198:1,6 201:25	158:5 167:9	212:24,25	215:18,19
202:4,13,16,19	184:4 191:2	213:1 228:22	220:15 221:9
202:20 205:11	200:22,24	230:17	222:20 227:15
205:17 208:4	says 65:21	scrivener's	232:12 233:23
208:22,24	72:24 132:25	116:22 172:11	235:5 240:13
209:7 210:5,19	133:3 135:21	172:20 195:20	248:17
	133.3 133.21	172.20 173.20	210.17
231:21,23	135:23 136:4	scroll 62:8	secondary
· ·			
231:21,23	135:23 136:4	scroll 62:8	secondary
231:21,23 232:2,20	135:23 136:4 138:1 199:23	scroll 62:8 126:18 131:24	secondary 190:18
231:21,23 232:2,20 235:21 238:9	135:23 136:4 138:1 199:23 215:3 216:9	scroll 62:8 126:18 131:24 132:4,18 137:8	secondary 190:18 secret 220:10
231:21,23 232:2,20 235:21 238:9 238:12,14,15	135:23 136:4 138:1 199:23 215:3 216:9 246:20	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1	secondary 190:18 secret 220:10 section 7:4,7
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23 schill 2:15	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18 243:24,25	135:23 136:4 138:1 199:23 215:3 216:9 246:20 <b>scenario</b> 147:18 148:11 150:9 <b>scheduled</b> 190:23 <b>schill</b> 2:15 20:24	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4 52:22 53:14	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3 61:5,5 62:11
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18 243:24,25 244:4,9,16	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23 schill 2:15 20:24 science 122:9	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4 52:22 53:14 62:8 67:1,2,4	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3 61:5,5 62:11 65:20 76:8,24
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18 243:24,25 244:4,9,16 245:21 246:11	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23 schill 2:15 20:24 science 122:9 123:13,25	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4 52:22 53:14 62:8 67:1,2,4 73:4,22,23,25	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3 61:5,5 62:11 65:20 76:8,24 77:1,17,24
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18 243:24,25 244:4,9,16 245:21 246:11 246:14 247:25	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23 schill 2:15 20:24 science 122:9 123:13,25 124:1,4,18,25	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4 52:22 53:14 62:8 67:1,2,4 73:4,22,23,25 74:8,14,17	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3 61:5,5 62:11 65:20 76:8,24 77:1,17,24 78:3 90:2
231:21,23 232:2,20 235:21 238:9 238:12,14,15 239:5,10,14,18 240:6,11,16,22 241:10,13,16 242:1,9,20,22 242:25 243:7 243:11,15,18 243:24,25 244:4,9,16 245:21 246:11 246:14 247:25 248:1,5,14,21	135:23 136:4 138:1 199:23 215:3 216:9 246:20 scenario 147:18 148:11 150:9 scheduled 190:23 schill 2:15 20:24 science 122:9 123:13,25 124:1,4,18,25 125:3,4,9	scroll 62:8 126:18 131:24 132:4,18 137:8 137:11 215:1 216:17 219:11 scrolling 146:23 second 13:9 14:6,8,10,12 40:17 41:4 52:22 53:14 62:8 67:1,2,4 73:4,22,23,25 74:8,14,17 77:15 78:17	secondary 190:18 secret 220:10 section 7:4,7 8:16,19 9:22 9:25 11:11,14 12:18,21 13:11 14:9,17 24:14 52:1 58:8,8,13 58:14 60:3 61:5,5 62:11 65:20 76:8,24 77:1,17,24 78:3 90:2 92:16 108:2,12

### [section - serious]

100.11.12	108:8 143:17	gools 25.16	gonding 100.2
109:11,12		seek 35:16	sending 108:3
116:24 117:4	158:12 161:14	seeking 48:11	150:22 184:12
118:4 138:24	192:11 213:9	111:19,25	207:22
139:8,18,18	227:17,17	181:23 213:9	sense 94:16
142:5,7,8,9	228:12 230:20	227:6 241:25	112:14 179:13
154:1,3,12,14	231:12 247:13	seem 47:7	192:3 193:3
158:3 161:14	see 17:17 18:17	245:20	229:13 231:17
161:15,23	23:8 26:3	seemed 236:6	sensitivities
162:11,24	29:25 34:14,16	seems 45:12	223:15
163:22 164:25	36:3,4,23 41:5	46:23 140:25	sent 108:5
165:7,17 167:6	47:16,20,21	141:3 183:15	135:10 147:7
167:9,10,12	49:21 52:22	240:8 245:21	163:3 183:5,13
168:13 171:10	65:24 67:11,14	254:21	183:18 207:5
171:12,17	78:8 109:7	<b>seen</b> 41:10	207:24 233:19
174:9,14 175:6	110:2,3 126:18	43:18 124:12	sentence
176:16 180:3	126:22 127:3	191:9 201:8	248:10
180:10 183:9	128:4,13,18,25	select 74:7	separate 24:21
192:10,19	130:9 133:3	selecting 74:12	61:25 62:25
195:13 204:13	148:19 149:13	<b>self</b> 6:4,23 7:8	75:10 168:11
206:17 207:15	154:22 160:19	7:15 8:13,20	177:11 239:9
216:7,22,25	161:15 162:14	9:4,19 10:4,11	239:13,14
217:7 226:5,7	163:12 164:5	11:8,15,22	241:22
226:10,14,17	165:3,12 178:7	12:15,22 15:7	separated
226:19 227:1,5	179:14 183:1	15:9,11,14	175:20
227:11,11,12	183:10 192:15	39:14 115:12	separately
228:20,21	199:16 213:1	173:12 186:5	107:2 239:4
229:1,3,5,6,20	216:7 219:13	209:11 212:10	september
229:25,25	228:14,19	213:3 234:13	128:21 146:25
230:1,25 231:2	229:9,11	<b>send</b> 41:12	sequential 61:6
231:13 232:5	230:21 234:20	133:25 146:19	series 95:25
232:11 247:14	235:13 246:18	147:5 148:21	99:17 171:18
251:14,24	<b>seeing</b> 40:13	148:21 163:10	208:4
sections 56:24	124:14 135:20	175:8 183:17	serious 31:16
57:2 58:5 60:6	171:15,25	194:18 207:18	31:17
87:15,18 108:5	191:1		

# [set - simple]

<b>set</b> 16:16 73:11	174:12,18	128:11,22	202:1,1 213:1
73:20,22,23	175:3 176:7	129:13,19,20	213:23 219:14
108:7 150:18	230:3,4,11	131:8,11,20	236:1 247:15
157:13 159:5	247:14 248:4	134:5,19 136:7	<b>showed</b> 117:15
210:11 237:6	248:15,17,25	136:15 141:18	149:23 232:5,5
sets 73:17	249:2	141:24 144:24	showing 13:12
<b>setting</b> 36:2,3	severances	156:9,11	52:3 53:21
several 83:19	96:20 171:7,22	157:20,23	60:22 120:17
143:15 144:21	174:4,11 241:5	166:7,13,20	163:19,24,25
146:9 171:6,21	severe 214:1,2	168:4 173:15	164:3,7 214:19
184:8 195:1	214:4,4	179:8,11	<b>shown</b> 52:11
199:23 253:11	<b>shaded</b> 229:9	180:19 181:5	66:25 67:12
severance	<b>shale</b> 220:23	181:14,24	<b>sic</b> 206:21
13:13 22:1	shallow 231:5	187:4,13,15	221:5 236:4
26:11 29:19	<b>shape</b> 78:25	188:15 189:5	<b>side</b> 68:7
31:5,7,13,24	<b>share</b> 50:2	189:25 191:13	242:14 245:1
32:11,12 61:19	126:5 210:11	193:16 198:7	<b>sign</b> 170:3
61:24 62:1,2,3	212:24	199:13 201:19	185:12 186:2,7
62:16,16,17,23	sharing 157:15	204:12 205:11	187:17,19,20
63:1,5,8,13,14	160:20	205:21 206:5	signature
63:18,20 65:1	sharpen 149:7	206:14 226:25	256:17 257:14
65:3 80:19,23	sharpened	248:20	<b>signed</b> 163:13
80:25 81:2,16	148:4	<b>shaw's</b> 134:13	186:23 196:11
81:18 82:17,19	sharper 148:9	134:14 226:23	198:11 201:3
82:20 90:10	<b>shaw</b> 3:14 4:19	232:3 248:12	236:11
100:19,20	6:5 7:16 9:5	<b>shelf</b> 193:4	significant
101:22 102:7,7	10:12 11:23	shelton 163:5	32:12
102:16,17	109:24 110:3	<b>short</b> 27:8	significantly
103:3,11,12,14	110:12,14,15	<b>shotgun</b> 191:19	80:4
103:20,21	111:6,9 114:22	<b>shots</b> 253:19	<b>signing</b> 158:23
104:2,3,15	114:24 115:2,8	<b>show</b> 25:21	247:20
116:25 170:21	115:11 117:5	38:23 87:10	silver 85:25
171:1,3,5,24,25	119:1,18	109:13 120:12	<b>similar</b> 214:16
172:4,7,13,15	120:21 121:12	137:8 160:13	simple 249:4
173:2,23 174:3	121:20 127:15	197:11 198:3	

### [simplified - sonic]

simplified	117:6,13 119:5	248:5 249:3	slightly 22:5
218:23	119:11 121:8	252:12	28:17 154:19
<b>simply</b> 123:2	127:17 134:8	sit 165:3	163:18,20
132:23 136:23	166:25 168:8	site 144:5 145:6	183:11,13
169:17 219:1	168:15,19,22	sites 144:24	<b>slim</b> 6:19 8:9
single 64:2,2	169:1,11	199:24	11:4 13:14
87:2 116:19	170:19,23	sits 95:14	77:17 87:21
sir 18:19 19:9	174:10,11,17	sitting 21:5	88:3
20:3,12,23	175:22,23	156:15	<b>slower</b> 223:14
25:8 30:15	176:5,25 177:5	situated 117:2	<b>small</b> 191:11,17
33:4,12 36:8	178:1 180:7	118:4 143:24	191:17
36:14,19 38:16	181:20 182:9	175:5	smaller 80:5
41:7 42:5	182:15,18,22	situation 46:24	201:18 221:15
43:12 46:20	183:16,23	78:7 147:13	<b>smith</b> 183:6,14
47:11 48:13,17	184:19 185:1	158:14 168:10	184:22,25
49:1 51:10	185:10,21,25	246:5	<b>sniper</b> 191:18
55:23 56:12	186:4 187:20	situational	software 74:25
59:11 62:10,20	188:12 189:16	170:11	75:15,25
72:17,21 73:13	190:3,8,11,15	situations 74:5	softwares
73:18,23 74:2	191:16 192:7	six 49:15 98:13	75:10,12,17,22
74:23 75:7,11	194:10,13,20	152:13,24	<b>solely</b> 180:4
75:18 76:5,10	195:24 196:4,8	153:5	solomon's
76:14,19 78:9	196:10,17	<b>sixteen</b> 226:13	245:22
78:13,16,20	198:9,13,17,21	<b>sixty</b> 221:12	<b>solution</b> 194:22
79:6 80:5	199:15 200:8	<b>sketchy</b> 108:14	194:25 195:4
84:15 85:18,22	201:6,24	<b>skills</b> 256:10	<b>some's</b> 248:9
86:1,14 87:6	202:13,16,16	257:6	somebody
91:5 98:10	203:14 204:4	<b>skip</b> 126:13	18:22 51:17
99:1,1 100:23	204:24,24	213:7	170:8 180:14
105:10 107:16	205:24 206:3	slicing 159:6	somewhat
110:7,11,14,16	209:14 213:11	<b>slide</b> 62:9 71:5	226:19
110:17 114:24	228:9,22	87:9	<b>sonic</b> 223:11,13
115:10,15,18	231:14,18	<b>slides</b> 217:12	223:18,20
115:23,23	238:15 240:16	217:14	224:2 225:3,5
116:5,14,18	241:10 242:1,9		

### [soon - spring]

<b>soon</b> 212:24	<b>sounds</b> 36:22	159:6 161:4,9	spending
sophisticated	80:17,18 81:7	165:13,21	165:25
148:25 149:2	84:5 103:3	175:9 181:18	<b>split</b> 176:23
<b>sorry</b> 22:23	160:12 191:13	204:20 205:9	177:15
62:5 63:4 66:3	193:12 230:18	<b>speak</b> 23:18	splitting 176:6
68:23 69:13	230:23 232:19	58:12,17,22	245:22
70:25 78:14	235:6,10 238:3	59:4 69:1	<b>spoke</b> 145:7
80:21 87:6	249:8 255:5	84:13 87:17	<b>spoken</b> 150:21
88:22 99:16	source 87:2	91:12 119:2	169:16 184:12
101:3 116:7	196:20 250:12	164:17 166:8	<b>spot</b> 187:21
117:13 118:11	sourced 192:8	166:10,16,22	spotfire 75:14
128:19 135:19	<b>south</b> 1:20 30:8	171:8 172:2	spread 154:2
136:1 142:9	85:24 143:17	192:10	<b>spring</b> 13:12
143:4 152:2	143:17 163:24	speaking 63:5	14:6,8,10,12,14
154:6 155:6	175:19 176:22	117:8 118:23	14:16,18,20
156:1 157:13	177:3	141:25	21:17,25 22:1
157:23 160:25	southeast	special 16:4	22:4,6,13,16
161:6 164:15	163:24 164:3,6	specific 58:23	24:6 25:19
164:17 169:3,4	164:12,13,18	73:1 81:12	28:18 30:18
171:20 173:13	164:19 165:16	106:5 243:13	31:6,12,14
174:6 180:2	165:17 168:13	specifically	32:9,19,24
184:2 185:17	174:13,17	75:19 90:14	61:14,16,19
193:17 201:20	southwest	145:14 158:1	62:2,17,19,20
207:16 210:12	116:23 117:3	192:10 240:5	62:21,22 63:1
212:8 213:15	174:13,16,18	249:13	63:2,9,16 64:1
220:13 226:12	southwestern	specificity	64:4,5,8,9,11
236:8	189:21	172:3	65:5 67:1,3,6
<b>sort</b> 51:14	<b>space</b> 63:19	specified 20:5	67:10,11 73:4
127:24 140:5	77:23 123:5	speculate 76:21	73:4,22,24,25
141:12 166:3	162:3 183:22	<b>speed</b> 81:2	74:1,9,10,13,14
194:15 224:3	spacing 24:22	<b>spell</b> 54:5 69:22	74:17,18 77:16
234:22 236:7	28:15 54:23	110:13,17,22	78:18 79:16,16
247:17	70:11 117:3	149:1	79:18 80:20,23
sounded 27:23	120:1 123:2	<b>spelled</b> 110:15	80:25 81:3,11
	143:16 158:20		81:15,19,20,25

## [spring - stipulation]

82:13,19,20	staking 144:2	143:13 144:3	213:3 226:22
84:7,17,21	<b>stamp</b> 200:16	145:6,18	232:19 234:14
85:4 87:2,8,9	stamped	149:16 173:13	statements
87:15,18 88:10	198:22	175:19 178:3,4	51:1 115:12,20
88:11,13,24	<b>stand</b> 110:8	178:9,12,13	186:5 209:11
89:1,5 96:18	standalone	195:14,14	209:17 216:16
96:21 100:19	167:10	196:23 200:18	<b>states</b> 96:25
100:21 102:6	standard	209:8 216:17	124:11 135:25
117:16,17	116:10 203:1	236:7 239:19	189:21,23
123:6 170:22	210:2 220:8	241:24 256:20	240:5
170:22 171:7	223:6	<b>stated</b> 25:19	stating 132:5
172:7 173:7,10	standards	137:23 148:2	170:21
175:2,4,7,11,17	210:3	148:14 167:4	status 78:2
175:18 176:2,3	standing 21:13	171:22 172:6	141:2 200:10
176:9,11,13,14	standpoint	184:11 187:15	247:19
176:17,19	162:4	196:23 201:6	statute 105:1
177:4,7,10,20	<b>start</b> 20:21	statement 4:3,4	133:3
213:25 214:10	28:25 29:1	6:4,23 7:8,15	<b>step</b> 169:24
214:12,15,17	121:21 144:14	8:13,20 9:4,19	198:2,3
214:17,21	158:19 247:6	10:4,11 11:8	stephen 3:15
215:7,13,13,15	<b>started</b> 143:10	11:15,22 12:15	6:24 8:14 9:20
215:16,18,19	160:10 192:14	12:22 13:21	11:9 12:16
216:8,10,14	starting 61:7	15:7,9,11,15	110:1,19,20,22
219:1 222:9,21	<b>state</b> 1:1 53:8	39:14 51:4,6,9	209:2
225:8 232:12	54:2 69:21	51:11 60:10,13	steven 5:3
241:4 248:16	73:1 85:23	70:16 72:24	stevens 15:5
249:2 250:10	110:12,17	82:13 102:19	22:11,13 23:9
250:11,21,22	115:8 122:4	103:14 107:20	39:4 180:3,15
251:9,10	131:20 132:1,7	107:22 124:6	<b>stick</b> 85:15
springs 172:8	132:15,20,24	126:9 132:5,25	sticker 146:25
214:11,22	134:2,2 138:6	133:8 146:17	sticking 193:9
222:22 230:9	138:10,11,15	173:12,12	stipulate 41:17
squarely 63:8	138:17,22,24	186:5 195:15	stipulation
63:10 90:8	139:11,14	199:20 200:3	34:15 39:8
92:10	142:4 143:11	204:5 212:10	113:23

### [stop - surrounding]

stop 128:22	subject 26:9	substantially	supplemental
141:25	71:9 81:12	34:4 64:7,9	146:19 147:7
straight 181:22	107:25 115:21	successful	147:21 148:13
222:16	115:23 192:6	125:12	148:23 151:13
strategies	197:5,8,17,20	successor 180:2	151:15
193:13	239:4	succinctly 40:2	support 19:6
stratigraphic	submission	suffice 249:5	22:12 23:23
7:4 8:16 9:22	198:16 200:6	sufficient 17:21	49:13 199:14
11:11 12:18	201:5	19:23 75:20	199:16 212:11
13:11	submissions	197:12	supported 52:8
straws 26:25	253:4,6	sufficiently	<b>suppose</b> 100:23
51:16,17 52:18	<b>submit</b> 18:13	81:8	supposed
<b>street</b> 2:7,16	19:6 43:8,13	suggesting	133:23 135:5
stressful 46:23	57:7 119:16	90:25 107:1	<b>sure</b> 28:2 48:10
strictly 216:12	147:20 179:6	197:6	61:11 64:10
<b>strike</b> 90:15	201:2 202:6	suggestions	85:11 91:24
striking 85:14	208:9	44:25	101:17 126:23
structural 7:7	submitted	suite 2:7	129:16 134:17
8:19 9:25	114:3,20	<b>suited</b> 127:23	145:18 151:4
11:14 12:21	139:13 140:15	191:24	156:2 161:7
structure 6:25	140:24 199:17	<b>sum</b> 137:4	165:23 178:12
8:15 9:21	199:25 200:1,4	255:2	178:14,14
11:10 12:17	200:5,13,14,19	summary	181:22 184:5
structured	201:23 208:6	168:24 169:5,6	194:1 234:24
143:14	208:10 209:25	179:5	239:24 240:14
stuck 222:13	212:6,11	summation	244:11 246:4
studied 225:4	236:11 247:11	151:8 166:3	254:11
<b>stuff</b> 129:14	submitting	169:11 221:8	<b>surface</b> 139:3,4
157:13 188:4	238:22	superior	139:6 145:6
191:18 192:3	subsequent	109:11	199:7,24
239:14 248:9	172:12 195:2	supplant	surprise 201:19
stuttering 58:1	substantial	203:12	201:21,24
<b>sub</b> 115:13,20	22:3 52:4 67:3	supplement	surprised 85:1
209:12,17	67:7 227:10	147:5 150:19	surrounding
			6:18 8:8 9:18

## [surrounding - testify]

10.05.10.14	1.67.0.101.10	. 2.5	4 110 114 14
10:25 12:14	167:9 191:18	taos 3:5	telling 114:14
32:11 94:12	193:5 197:6	target 63:21	tells 137:18
<b>survey</b> 198:23	201:16,16	65:10,11,13	170:2,9
199:12 200:16	202:8,10,12	67:4,5 192:3	ten 48:20 49:12
surveyed	208:2 232:9	targeted	72:17,24
196:17	<b>taken</b> 94:13	193:14	140:12 151:22
surveying	256:3,12 257:9	targeting 81:21	152:5 153:2,7
144:1	takes 144:12,22	82:3 190:22	153:20 193:23
surveyor	191:7 201:4,21	targets 67:8	222:5 225:8
196:12 198:11	talk 26:23	teach 123:20	235:1
198:22 236:2	126:5 136:10	team 82:10	<b>tender</b> 55:20
236:11	139:18 160:9	83:21 104:8	71:20 210:5
suspect 26:17	172:9 232:25	technical 3:10	term 117:21,25
sustain 85:13	234:19 244:6	16:7 17:2 40:1	148:1,2 159:3
93:8 141:23	<b>talked</b> 150:24	53:15 92:24	159:4,10
swap 53:16	151:3 189:6	107:24 122:21	163:17
<b>switch</b> 74:25	194:7 241:21	122:23 123:23	terminology
75:6,9 80:7	241:22,23	125:9 255:3	141:11
139:17	242:15,25	technique	terms 58:12,21
switches 75:8	talking 16:13	82:25	60:2 73:15
<b>sworn</b> 50:20	30:20 32:16	techniques	79:22 88:9
53:3 69:16	51:14 75:10	83:5	102:7 103:18
109:19 115:3	80:2 89:24	telephone	146:6 163:14
209:3 256:5	92:24,25	184:10	187:25 188:5
t	102:12 133:8	tell 25:10 31:3	193:13 203:19
t 6:1 7:1 8:1 9:1	168:12 191:11	53:4 58:11	204:17
10:1 11:1 12:1	228:21 233:19	69:17 76:16	<b>tested</b> 85:23
13:1 14:1 15:1	234:25 235:1	108:15 115:4	testified 53:5
	tamano 6:21	138:6 170:2	54:13 69:18
54:7,8 69:24	8:11 11:6	180:11,16	70:4 111:13
110:23	116:2 117:1	182:23 199:5,6	115:5 209:5
table 21:5	118:3	199:8 209:4	210:22
tablet 230:21	tank 64:2,4	216:3 232:10	testifies 250:4
take 128:12	81:4 196:18	245:7	<b>testify</b> 210:25
141:12 155:20			226:25 247:17
156:9,10,14			

## [testifying - think]

togtifying	60:14 63:25	208.10.24	31:2,4,15,16,18
<b>testifying</b> 210:20 212:19	64:15,15,17,21	208:19,24 210:8,10	31:23 34:5
256:5	, , , , , , , , , , , , , , , , , , ,	227:23 228:9	35:9 45:9
	66:15 67:18,22		
testimony	68:8,10 69:6,8	229:21 231:18	53:10 59:7,11
32:10 44:12	69:11 71:22,25	231:19 232:22	63:18,19 64:4
55:1,5,11,14	72:4 74:20	232:23 237:10	65:17,25 79:10
70:13 71:13	76:7,22 77:15	242:17 243:15	84:25 85:4,5,7
100:7 112:13	78:9,14,19	245:22 247:8	85:8 89:20
112:17 114:1	79:14 80:18	247:23 249:16	92:11 93:16
114:20 122:8	81:9 86:16,20	254:4,17	95:25 99:10
132:7 137:20	89:7 91:8 93:7	255:13	102:25 108:22
158:5 160:11	94:5 95:5,23	thanks 66:1	110:1 112:9
161:5,7 187:14	98:19 99:2	<b>that'd</b> 166:16	124:12 129:10
211:8,11,14,23	100:10,12,24	theirs 108:5	134:6,10 135:8
212:5,15 213:6	101:14,25	theme 26:23	140:5 148:25
216:1 217:6	104:17 105:4,7	51:15 52:17	150:9,25 151:7
226:23 229:7	105:9,11,17	<b>thereof</b> 247:19	152:4 155:1,19
232:4 240:5,8	109:17,18	thick 216:15	156:21 160:20
245:12,16	110:16 114:21	thickness 56:17	163:2 165:22
246:1,24	117:11,12	222:17	167:2 173:21
248:12	121:14,17,20	thicks 214:2,5	176:18 177:17
texas 48:19,24	126:4 128:6	thing 20:15	178:11 181:24
49:2 122:5	130:19 131:25	28:1,18 131:8	181:25 182:12
190:17	142:1 151:22	196:21 218:14	185:4 186:9
<b>thank</b> 16:12	152:8 155:16	222:19	188:14 192:18
20:11,11 21:10	156:14,20	things 113:24	192:19 193:2
24:18,23 26:7	157:4,10	125:4 140:15	197:15 203:5,7
27:2 28:9 29:7	166:17 167:17	158:1 169:20	204:4 211:21
33:13,22 34:12	173:25 180:18	188:1 189:17	211:24 212:5
38:16 40:21	180:20,23	192:25 203:21	213:7 230:16
42:5 44:10	181:11 183:11	211:19 232:18	230:16 231:23
47:12,22,25	188:16 189:2	234:21 240:3	233:19 234:17
48:7 50:1,5	202:13,19	241:8,12,12	235:17 238:17
52:19 56:3,19	205:11 206:4	think 23:22	239:18 241:3,5
57:25 59:15	208:12,13,17	25:7 30:11	243:20 245:8

### [think - today]

249:4 250:23	175:1,4,14,17	204:25 244:3	timeframe
251:5 253:18	175:18 176:3,5	248:2,8	244:11
253:25 254:1	176:13,16,19	threshold 80:2	<b>timeline</b> 35:19
254:15 255:3,5	176:20 177:1	throat 188:5	140:1,9 196:6
thinking 36:7	177:12,13,20	tie 231:10,16	207:23
155:7 177:12	213:25 214:10	tight 67:14	timelines 143:9
193:17	214:11,12,15	<b>till</b> 136:10	158:2
thins 214:2,4	214:17 215:7	time 1:15 17:20	timely 26:4
third 13:12	215:13,15,16	18:16,16 19:15	29:17 244:19
14:14,16,18,20	216:7,10,14	20:4 22:14	times 57:24
24:5 25:19	219:1 222:22	29:5 32:1,13	141:20,21
30:18 31:6,11	230:7,8 241:4	33:3 34:4 35:4	166:16 170:1
31:14 32:9,18	248:15,18	35:12,22 36:16	191:22 210:22
32:24 61:14,16	thirds 162:9,20	38:20 43:4	<b>title</b> 108:3
61:19 62:2,4	230:8	56:3 72:4	118:2 130:6,7
62:17,18,18,20	thoroughly	83:10 84:24	171:10 172:12
62:21,22,24	32:13,14	86:17 87:25	172:12,21
63:1,2,9,16	thought 27:16	108:25 121:23	179:25 194:16
64:1,3,5,7,9,11	27:18 30:10	124:23 128:12	215:2 222:1
65:4 67:1,2,5,9	33:19 99:7	130:15 141:13	toc 221:1,4
67:11,17 73:4	107:4 142:23	144:12 147:20	tocs 220:25
73:24 74:1,10	155:4 156:22	148:19 156:25	<b>today</b> 16:7
74:13,17 80:20	thoughtful	158:23 159:17	17:14 21:3
80:23,25 81:3	194:1	164:1 165:25	23:24 28:25
81:11,15,19,19	thoughts	169:13,16	29:2 32:14
81:25 82:12,19	155:21 251:12	170:7 174:15	36:2,13,17
82:20 84:7,17	thousand 78:13	183:20 187:19	37:14 45:22
84:21 85:3	191:10	188:15,19	46:15 51:13
87:1,9 88:1,3	three 57:24	192:12 203:4	52:16 70:6
88:10 89:2,4	58:5 123:4,9	204:2 207:10	83:23 84:2,15
96:18,21	123:11 148:6	211:21,22	99:24 100:5
100:19,21	150:4 161:14	215:23 235:8	109:5 113:16
102:5 103:11	162:9,20	235:21 244:14	121:21 124:13
149:20,25	170:22 183:1	244:18	125:23 188:24
160:2 171:7	188:25 191:10		233:17,21

### [today - two]

	I	I	I
235:24 236:25	193:24 221:1,3	transcriptionist	157:13 180:1
237:21 238:25	221:3,4	256:8	182:2 193:5,23
244:8 245:13	<b>toward</b> 48:16	transferring	226:6 231:1
248:13	48:25	224:2	241:9,16,17
today's 31:24	towards 68:7	transforming	242:13 248:25
39:1 70:14	72:12 74:8,10	224:2	253:21
118:5	188:11 229:20	travis 15:8	tschantz 40:18
toe 193:7	tracked 35:24	39:14 173:11	40:22 42:25
together	tracking 20:5	207:21 236:23	242:15 243:4
108:19 177:18	233:8	<b>treat</b> 188:6	tuesday 1:14
178:19,20,21	<b>tract</b> 6:8 7:19	treated 188:7	turn 47:22
179:4 184:13	9:8 10:15 12:4	treatise 189:6	110:8,10
230:2 231:16	116:23 117:15	206:10	140:22 222:18
241:9	118:21,21	<b>trial</b> 98:13	<b>turned</b> 144:13
tom 28:7	132:12 138:20	<b>tried</b> 215:4	238:13
tomorrow	139:24 154:22	231:16	<b>turning</b> 49:20
17:14 45:16,17	158:16 159:21	<b>true</b> 81:1 166:1	66:23
46:1 188:19	172:25 179:25	256:9 257:5	tv 53:21
took 136:2	180:12,17	truncate	<b>two</b> 16:19 17:5
tool 223:10	195:21 199:9	114:15	21:16 29:17,22
<b>tools</b> 190:9	239:19 241:24	truncated	29:25 36:1
top 62:21 76:18	<b>tracts</b> 154:11	114:12	46:9,14 47:14
81:19 82:1	154:11 159:9	<b>trust</b> 118:13	60:6 65:19,19
148:3 161:25	162:6,7,8,15,16	119:8 179:23	67:7 68:22
165:2,9 172:4	163:6,18	<b>truth</b> 53:4,4,5	71:8,10 75:10
172:6,8 175:17	164:14,20	69:17,17,18	75:12 79:22
179:24 214:11	192:9 204:13	115:4,4,5	90:3 98:1
216:7,14 219:1	<b>trails</b> 166:15	209:4,4,5	109:7 140:4,6
219:2 229:11	trajectory	<b>try</b> 103:2 173:7	146:24 148:6
230:7,8	190:1	188:4 197:24	152:16,24,25
tops 231:10	transcriber	203:4 218:17	153:5,6,6
toss 234:2	16:9 257:1	<b>trying</b> 34:20	154:9 162:9,20
total 152:17	transcript	51:20 88:5,13	170:1,22 183:2
153:2,7,15,20	95:10 257:3,5	127:13,21	184:21 188:22
191:4 193:24		131:14 153:4	191:9 197:7,13

### [two - unmarketable]

176:20 211:1	187:14 188:18	162:3 175:9
under 17:7	195:8 197:23	204:16,20
19:10 55:14	210:19 212:8	205:9 216:23
71:14 86:11	213:8 215:25	216:25 220:22
104:25 105:1	217:18 218:13	227:13 232:4,6
112:24 113:23	218:25 219:10	232:14,15,16
114:1 137:15	221:23 225:25	239:25
138:14 140:18	243:7 244:9,16	<b>united</b> 124:11
146:13,16	247:20	189:20,23
157:21 160:1	understandable	<b>units</b> 54:23
168:4 176:14	252:22	61:4,15,19
178:20 184:16	understanding	70:11 107:25
185:2,21	24:20 25:3	108:2,19,20,21
187:23 201:21	75:21,24 76:6	120:22 121:3
202:8,25	78:23 79:2	143:16 165:13
203:18,22	81:21 84:7	165:21 181:19
204:9 216:19	86:25 87:7	183:22 204:14
227:14	99:25 101:23	204:23 220:18
undergraduate	104:9 138:18	220:20 221:10
122:8	148:5 183:24	221:12
underground	184:3,5 195:13	university
125:5	250:15	48:19,24 49:2
underlying	understands	unknown
229:1 231:12	140:6	144:16
understand	understood	unleased
17:22,23 18:21	103:2	132:14,20
27:16 30:2,3	undetermined	137:15 138:1
30:17 33:12	185:14	138:10,10,12
44:2 47:6 57:5	unfortunately	138:22 143:12
57:10 58:22	242:14	143:19 158:4,8
59:14 60:9	unison 82:4	178:3 239:20
76:3,22 83:11	<b>unit</b> 24:22	<b>unlucky</b> 201:15
84:23 93:7	28:15 116:2,4	unmarketable
94:20,20 98:10		188:5
107:11 149:3	158:20 161:4,9	
	under 17:7 19:10 55:14 71:14 86:11 104:25 105:1 112:24 113:23 114:1 137:15 138:14 140:18 146:13,16 157:21 160:1 168:4 176:14 178:20 184:16 185:2,21 187:23 201:21 202:8,25 203:18,22 204:9 216:19 227:14 undergraduate 122:8 underground 125:5 underlying 229:1 231:12 understand 17:22,23 18:21 27:16 30:2,3 30:17 33:12 44:2 47:6 57:5 57:10 58:22 59:14 60:9 76:3,22 83:11 84:23 93:7 94:20,20 98:10	under       17:7       19:10 55:14       210:19 212:8         71:14 86:11       213:8 215:25         104:25 105:1       217:18 218:13         112:24 113:23       218:25 219:10         114:1 137:15       221:23 225:25         138:14 140:18       243:7 244:9,16         146:13,16       247:20         157:21 160:1       understandable         168:4 176:14       252:22         178:20 184:16       understanding         185:2,21       24:20 25:3         187:23 201:21       75:21,24 76:6         202:8,25       78:23 79:2         203:18,22       81:21 84:7         204:9 216:19       86:25 87:7         227:14       99:25 101:23         undergraduate       104:9 138:18         148:5 183:24       148:5 183:24         understand       140:6         understand       103:2         understood       103:2         undetermined       185:14         44:2 47:6 57:5       14 (10:6)         57:10 58:22       14 (10:6)         59:14 60:9       16 (10:2)         76:3,22 83:11       185:14       185:14         40:20,20 98:10       120:1 127:9

## [unopposed - vance]

unopposed	v	151:22 152:5	<b>valid</b> 84:25
176:16 177:12		152:11,15,17	85:4,6
unsuccessful	v 2:13 6:3 7:3	153:10 154:2	valuations
125:13,18	7:14 8:3 9:3	158:2,6 161:13	49:14
<b>updated</b> 149:22	10:3,10 11:3	162:22 163:2	<b>value</b> 71:10
150:13,17,20	11:21 12:3	163:17,22	values 214:8
233:7,22 234:5	13:3,6 14:3	164:24 167:4	vance 2:5 4:3,8
234:13 236:1,4	15:21 16:23	168:5,10,17	4:13,21 20:15
238:16	20:21,24 21:13	169:21,21	20:19 23:11,12
updates 40:11	22:9,11 23:4	170:25 171:11	23:15,17 24:9
141:3 167:16	26:18 28:7,8	171:17 174:20	25:5,15,16,23
<b>upper</b> 31:11	35:14,17 37:6	174:21 175:20	26:2,10,13
62:25 82:12,19	37:10,16,21	177:2 178:18	27:6,10,21,25
84:20 87:14	38:1,6,11 41:6	181:17,18,23	28:3,6 29:10
88:12 250:10	42:1 51:16	183:16,20	29:11 30:9,22
251:9	72:15,17,24 73:6 76:25	184:6,16 185:6	37:4,7,11 39:5
<b>upward</b> 82:12	78:10,16 79:16	185:18,22	39:9,12,19,22
use 51:20 59:5	79:25 87:11	186:22 187:15	39:25 40:5,7
74:25 75:17	96:2,18,19	187:17,18	40:10,14 41:1
87:3 165:8	97:8 99:23	188:9 190:15	41:4,9,12,19
190:10 220:7,7	100:21 102:17	191:13 193:14	42:7,9,16 43:5
220:7 221:9	108:1,9,14,16	193:22 197:7	43:7,12,15,18
222:3 225:1,3	108:20 109:1,3	197:14 201:16	44:3,10,15,18
<b>used</b> 75:3 87:1	108.20 107.1,3	202:5 204:6,8	44:23 45:7,8
176:12 218:16	115:9,11 119:4	204:23,25	45:12,17,20,23
220:1,2 223:13	119:20,23	205:2,4,5,7,9	45:25 46:5,8,9
<b>useful</b> 107:13	120:3,7,11,17	205:23 212:6	46:16 47:15,16
112:9 190:13	120:3,7,11,17	212:11,21	47:19 48:10
uses 75:9	120.23,23	213:9 226:22	49:24,25 50:2
<b>using</b> 75:14	127:18,22	227:5,14	50:19,22,25
192:25 223:3	131:14 138:9	228:10 230:1	51:5,12 52:20
usually 223:9	138:12 139:7	232:6,14	52:21 53:7,10
utilizing 190:19	139:10,13,21	235:25 244:9	53:14,24,25
	144:19 145:23	vaguely 178:17	54:1 55:19
	146:4 147:12		59:2,3 66:17

## [vance - want]

		T	
67:23,24 68:2	157:18,22	verbatim 16:9	<b>voir</b> 211:22
68:8 69:12,13	160:22 161:1	version 60:12	volume 71:9
69:20 71:19,23	165:24 166:5	218:23	166:14
84:9 87:13	166:22 167:1	versus 77:9	volumetrics
89:11,14,18	167:18 168:12	79:25 102:7	211:3,4
90:23 91:9,11	168:23 194:7	109:11 153:11	voluntarily
91:17,19,23,24	196:25 197:16	204:14 224:19	160:3
92:5,12,15	197:19 202:7	vertical 24:10	voluntary
93:8,12,13	204:13 206:8,9	26:15 124:5,10	159:20 169:21
94:6 95:14,16	206:13 208:12	174:21 189:8	186:11
98:23 99:3,5,9	227:20,21	190:5,9,13,18	W
99:13,14	233:2,6,15,24	191:11 230:3	<b>w</b> 110:15
100:10 101:1,3	234:3,6,9,11,13	vertically	wait 36:3 66:10
101:15,17,20	234:19 235:2,6	170:20	97:22 136:10
101:25 102:13	235:10,25	<b>vested</b> 118:6,14	169:3
102:20 103:6	236:8,16,19,22	viable 77:1	<b>waiting</b> 110:3
104:19,20,24	237:4,10,16,22	<b>vice</b> 149:11	133:5
105:8,12,15	237:25 238:3,6	videoconfere	waive 185:1
106:2 121:16	240:2,4 245:8	3:11,12,13,14	walk 39:13
121:17,19	247:1,10,21,22	<b>view</b> 6:17 7:6	42:8
127:10,11,18	250:17 254:6,7	8:7,18 9:17,24	want 23:20,25
128:7,9,10	254:12,16	10:24 11:13	28:12 33:2
129:3,13,16	255:5	12:13,20 40:1	38:21 39:3,17
130:2 131:1,4	vance's 189:5	77:9,13 82:6	41:15 46:1
131:7,10 133:4	variables 83:1	189:9 204:15	50:20 51:3
133:6,15	<b>varies</b> 118:20	210:2	58:22 71:5
134:25 135:3,4	118:21	views 77:5,8	74:8 79:9
135:8,13	variety 82:9	violate 84:21	81:11 95:21
136:12,16,18	various 74:4	<b>vis</b> 146:5,5	96:13 105:14
137:14,16	<b>vc</b> 159:2,3	207:22,22	105:21 112:12
141:23 142:2,3	192:14	<b>voice</b> 111:1	112:18 113:18
142:20 143:3,4	veracity 55:16	136:8	114:17,19
143:7 155:22	56:14 71:16	<b>void</b> 186:16	126:5 127:19
155:25 156:3,7	<b>verbal</b> 186:6,19	187:2 204:11	129:16 131:19
157:11,12,16	253:15		137:14,17
			131.17,17

### [want - west]

146:7,12	193:15	<b>webex</b> 160:23	143:19 146:8
152:23 153:3,4	<b>water</b> 190:19	<b>weeds</b> 232:9	146:10 147:4
155:9 158:23	211:5	<b>week</b> 32:10	147:12,13,16
160:9 161:2	way 18:9,18	147:7 185:5	148:6,10
165:23,23	22:8 27:20	235:4 242:4	149:16,18,19
170:3,4,8,13	31:20 33:25	246:23	149:19,20,23
178:13 181:21	35:15 53:23	weeks 17:5	149:24 151:22
187:11 188:1,7	81:17 88:23	21:16 36:1	151:25 152:5,9
188:18 197:10	89:1 93:9 97:2	184:21 253:11	152:11,14,17
206:15 217:18	108:10 112:12	<b>weight</b> 19:19	152:20,24,25
218:1 219:20	119:1 131:2	74:8,10,11	153:1,2,5,6,6,7
240:14 243:3	143:14 155:20	112:13,17	153:11,11,15
243:19 244:6	159:4 161:25	254:15	153:18 169:18
247:1 249:19	169:19 178:11	welcome 33:21	176:19 184:1
249:25 252:16	178:15 187:21	84:3 98:25	189:8,9 190:13
252:17 253:3,5	188:3,6 191:7	<b>well's</b> 148:20	190:18 191:5,6
253:15,24	191:7 192:14	wellbore 82:23	191:9,12 193:1
254:4,14	206:22 220:23	wellbores	193:21,23
wanted 27:24	230:7,8 235:21	81:24	212:17,21
29:12,13,16	237:8 242:13	wells 52:13	222:6,8,8,9
31:3 66:23	247:4 255:2	61:2 65:19	229:6
80:22 108:25	ways 74:11	71:8,10 72:15	wendell 1:19
157:24 175:12	159:7,7	72:17,20,20,25	<b>went</b> 87:13
176:13 254:7	<b>we've</b> 30:11	72:25 73:15,19	90:23 106:1,2
254:16	31:19 84:17	73:22,25 74:1	121:10 132:2
wants 18:13	124:12,13,17	74:4,9,12,13,16	134:1 147:10
29:2 33:20	140:24 143:14	76:12,16,23,25	148:4 157:25
44:22 59:5	143:15 144:1	77:6,10,11,13	160:11 177:22
102:14 131:8	159:4 191:9	77:16,21 78:6	192:21 232:4
187:15 192:25	195:1 196:17	81:10 83:5,18	233:10 234:20
240:6	196:18 201:8,8	84:16 85:24	242:5 249:12
warmer 219:14	215:24 230:4	86:3,5,7 87:1	west 60:20,21
warren 163:5	237:21 244:3	87:10,21 88:1	60:22 61:7
waste 52:3,4	246:7	88:6 94:11,24	65:19 77:16
109:8 125:6,21		116:8 128:21	192:16 226:9

### [west - xto]

226:10	129:22,25	217:3 218:15	203:15 204:17
whatsoever	130:25 133:7	work 43:2 49:9	204:19 205:7,8
171:22,23	134:22 135:9	53:15,17 56:8	218:17 232:6
whichever	136:13 137:9	92:8 123:14	232:14 235:19
251:6	166:12,18,25	144:1,5,6,18	238:16 239:8
wife 28:6 45:23	167:21 173:17	156:18 158:22	241:21
47:3	174:2 202:15	188:1,2,10	works 36:23
<b>wildcat</b> 190:17	205:15 208:17	194:25 211:8	45:13 112:12
win 186:22	209:3,10 210:6	211:10	237:10 238:3
255:4	211:22 237:12	workaround	241:13
winerack	244:6 245:25	17:1,25	worst 147:17
124:19	245:25 246:1,8	<b>worked</b> 35:18	147:17 148:11
wire 222:12	246:13 254:15	49:11 51:22	150:8
<b>wish</b> 169:23	256:4	57:14	worth 211:24
withdraw	witness's	working 13:18	245:16
143:1 155:9,10	112:13	16:11 28:4	wrapped
187:10	witnesses 4:6	48:19 49:16	253:19
witness 36:12	31:25 33:5,15	77:3 90:11,20	<b>writing</b> 113:24
45:2 53:3,18	33:15,21 46:8	90:21 92:16	251:17
53:20 55:20	46:9,15 47:14	93:23 103:25	written 54:25
59:9,18,18	50:20 105:13	108:1 119:19	55:13 70:13
67:18 68:10	109:19 111:5	119:21,24,25	71:13 114:1,19
69:11,16 71:20	114:11,17	120:4,5,8,9,12	240:12
85:8,15,17	236:21,23	120:13,18,19	<b>wrong</b> 97:3
95:11 98:24	241:20 245:16	120:22,25	235:13
105:4,6,7	254:9	123:9 126:10	<b>wrote</b> 248:9,10
110:3,4,7	wolfcamp	133:12 135:22	X
112:1,2,16,20	230:7	136:4 137:3,25	<b>x</b> 4:1 5:1 6:1
113:25 114:17	wondering	145:13 154:1,3	7:1 8:1 9:1
115:3 117:6,9	88:11 105:20	154:9 161:23	10:1 11:1 12:1
117:13 118:9	<b>word</b> 141:24	162:10,13	13:1 14:1 15:1
118:11,20	208:2 232:9	165:19 167:5,6	246:13,14,15
119:5,7,11	wording 65:5	167:11 169:14	<b>xto</b> 2:2 23:17
121:12 127:14	words 126:10	171:15 177:21	181:2,4,16,17
127:17 129:8,9	185:17 215:14	186:6 188:2	181:22 182:4
			101.22 102.4

### [xto - zoom]