

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Southern California Gas Company with Respect to the Aliso Canyon storage facility and the release of natural gas, and Order to Show Cause Why Southern California Gas Company Should Not Be Sanctioned for Allowing the Uncontrolled Release of Natural Gas from Its Aliso Canyon Storage Facility. (U904G).

I.19-06-016
(Filed June 27, 2019)

**PROPOSED COMBINED EXHIBIT AND WITNESS LISTS OF
SOUTHERN CALIFORNIA GAS COMPANY (U 904 G), SAFETY AND
ENFORCEMENT DIVISION, AND THE PUBLIC ADVOCATES OFFICE**

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Attorneys for:
SOUTHERN CALIFORNIA GAS COMPANY

March 12, 2021

SoCalGas' Exhibit List

Exhibit Number	Description	Sponsoring Witness
SoCalGas-1	Prepared Opening Testimony of Dan Neville (November 22, 2019)	Dan Neville
SoCalGas-2	Prepared Opening Testimony of Rodger Schwecke (November 22, 2019)	Rodger Schwecke
SoCalGas-3	Prepared Opening Testimony of Amy Kitson (November 22, 2019)	Amy Kitson
SoCalGas-4	Prepared Reply Testimony of Tim Hower and Charlie Stinson of MHA Petroleum Consultants (March 20, 2020) – Final Version	Tim Hower Charlie Stinson
SoCalGas-5	Exhibits to Prepared Reply Testimony of Tim Hower and Charlie Stinson of MHA Petroleum Consultants (March 20, 2020)	Tim Hower Charlie Stinson
SoCalGas-6	Prepared Reply Testimony of Robert A. Carnahan, P.E. (March 20, 2020)	Robert A. Carnahan, P.E.
SoCalGas-7	Exhibits to Prepared Reply Testimony of Robert A. Carnahan, P.E. (March 20, 2020)	Robert A. Carnahan, P.E.
SoCalGas-8	Prepared Reply Testimony of L. William Abel (March 20, 2020)	L. William Abel
SoCalGas-9	Exhibits to Prepared Reply Testimony of L. William Abel (March 20, 2020) (March 20, 2020)	L. William Abel
SoCalGas-10	Prepared Reply Testimony of Danny Walzel and Dr. Arash Haghshenas (March 20, 2020) – Final Version	Danny Walzel Dr. Arash Haghshenas
SoCalGas-11	Exhibits to Prepared Reply Testimony of Danny Walzel and Dr. Arash Haghshenas (March 20, 2020)	Danny Walzel Dr. Arash Haghshenas
SoCalGas-12	Prepared Reply Testimony of Travis Sera (March 20, 2020)	Travis Sera

Exhibit Number	Description	Sponsoring Witness
SoCalGas-13	Exhibits to Prepared Reply Testimony of Travis Sera (March 20, 2020)	Travis Sera
SoCalGas-14	Prepared Reply Testimony of Amy Kitson (March 20, 2020)	Amy Kitson
SoCalGas-15	Prepared Reply Testimony of Dan Neville (March 20, 2020)	Dan Neville
SoCalGas-16	Exhibits to Prepared Reply Testimony of Dan Neville (March 20, 2020)	Dan Neville
SoCalGas-17	Prepared Reply Testimony of Darrell Johnson (March 20, 2020)	Darrell Johnson
SoCalGas-18	Exhibits to Prepared Reply Testimony of Darrell Johnson (March 20, 2020)	Darrell Johnson
SoCalGas-19	Prepared Reply Testimony of Gregory Healy (March 20, 2020)	Gregory Healy
SoCalGas-20	Exhibits to Prepared Reply Testimony of Gregory Healy (March 20, 2020)	Gregory Healy
SoCalGas-21	Prepared Sur-Reply Testimony of Dan Neville (June 30, 2020)	Dan Neville
SoCalGas-22	Exhibits to Prepared Sur-Reply Testimony of Dan Neville (June 30, 2020)	Dan Neville
SoCalGas-23	Prepared Sur-Reply Testimony of Rodger Schwecke (June 30, 2020)	Rodger Schwecke
SoCalGas-24	Exhibits to Prepared Sur-Reply Testimony of Rodger Schwecke (June 30, 2020)	Rodger Schwecke
SoCalGas-25	Prepared Sur-Reply Testimony of Amy Kitson (June 30, 2020)	Amy Kitson
SoCalGas-26	Exhibits to Prepared Sur-Reply Testimony of Amy Kitson (June 30, 2020)	Amy Kitson
SoCalGas-27	Prepared Sur-Reply Testimony of Tim Hower and Charlie Stinson of MHA Petroleum Consultants (June 30, 2020)	Tim Hower Charlie Stinson

Exhibit Number	Description	Sponsoring Witness
SoCalGas-28	Exhibits to Prepared Sur-Reply Testimony of Tim Hower and Charlie Stinson of MHA Petroleum Consultants (June 30, 2020)	Tim Hower Charlie Stinson
SoCalGas-29	Prepared Sur-Reply Testimony of L. William Abel (June 30, 2020)	L. William Abel
SoCalGas-30	Prepared Supplemental Rebuttal Testimony of Glenn La Fevers (October 26, 2020)	Glenn La Fevers
SoCalGas-31	Exhibits to Prepared Supplemental Rebuttal Testimony of Glenn La Fevers (October 26, 2020)	Glenn La Fevers
SoCalGas-32	Prepared Supplemental Rebuttal Testimony of L. William Abel (October 26, 2020)	L. William Abel
SoCalGas-33	Prepared Reply Testimony of Danny Walzel and Dr. Arash Haghshenas (March 20, 2020)- Redlined Version	Danny Walzel and Dr. Arash Haghshenas
SoCalGas-34	Prepared Reply Testimony of Tim Hower and Charlie Stinson of MHA Petroleum Consultants (March 20, 2020) – Redlined Version	Tim Hower and Charlie Stinson

SoCalGas' Witness List¹

Witness Name	Brief Description of Testimony	Time for Cross Exam (hours)	Time for Re-Direct
Tim Hower & Charlie Stinson	Mr. Hower is a Senior Technical Advisor at MHA Petroleum Consultants and has over 36 years of petroleum engineering experience, including evaluation and optimization of underground gas storage projects. Mr. Stinson is a Petroleum Engineer at CS Energy Ventures and has over 40 years of broad experience in the natural gas industry. Messrs. Hower's and Stinson's testimony addresses the compliance of SoCalGas' operations and maintenance practices with past and existing regulations, industry standards, and prevailing industry practices applicable to underground gas storage operations.	SED: 12 hours. Cal Advocates: 1 hour.	SoCalGas: 4 hours.
Robert A. Carnahan	Mr. Carnahan's testimony addresses the efficacy of mechanical integrity inspection tools beginning circa 1988, the mechanics of pressure testing in storage wells cathodic protection to have protected SS-25's production casing, and continuous pressure monitoring.	Cal Advocates: 0.5 hours.	SoCalGas: 0.5 hours.
L. William Abel	Mr. Abel's testimony addresses SoCalGas' response to and well control efforts related to the Incident.	Cal Advocates: 0.5 hours	SoCalGas: 0.5 hours.
Travis Sera	Travis Sera is a Director of Integrity Management for SoCalGas. His testimony addresses risk assessment of the Incident in light of operational history of the field.	SED: 1.5 hours. Cal Advocates: 0.5 hours.	SoCalGas: 1 hour.

¹ SoCalGas provided a list of disputed material fact in the parties' Joint Case Management Statement, filed February 19, 2021.

Witness Name	Brief Description of Testimony	Time for Cross Exam (hours)	Time for Re-Direct
Amy Kitson	Amy Kitson is a Director of Integrity Management and Strategic Planning for SoCalGas. Ms. Kitson's testimony address SoCalGas' well evaluation and re-work initiative and Storage Integrity Management Program, prior to the Incident.	SED: 1.5 hours. Cal Advocates: 0.5 hours.	SoCalGas: 0.5 hours.
Gregory Healy	Gregory Healy is a Regulatory Business Manager for SoCalGas. Mr. Healy's testimony addresses SED's allegations regarding SoCalGas' well files and SoCalGas' cooperation with SED during its pre-formal investigation.	SED: 0.25 hours. Cal Advocates: 0.5 hours.	SoCalGas: 0.5 hours.
Daniel Neville	Dan Neville is the Reservoir Engineering Manager in Integrity Management and Strategic Planning for SoCalGas, a position he has had since 2012. Mr. Neville's testimony addresses SoCalGas' recordkeeping practices, operations and maintenance practices, and the reliability of Vertilog technology.	SED: 12 hours. Cal Advocates: 1 hour.	SoCalGas: 3 hours.
Roger Schwecke	Rodger Schwecke is the Senior Vice President of Gas Operations and Construction at SoCalGas and San Diego Gas & Electric, and served as the incident operations commander leading efforts surrounding the Incident. His testimony addresses SoCalGas' extensive efforts to control the Incident while maintaining safety, as well as efforts to plan and develop mitigation efforts.	SED: 7 hours. Cal Advocates: 0.5 hours.	SoCalGas: 2 hours.
Glenn La Fevers	Glenn La Fevers was Storage Operations Manager at Aliso Canyon at the time of the Incident. His testimony addresses the November 13, 2015 well control activities and offsite impacts.	SED: 2 hours. Cal Advocates: 0.5 hours.	SoCalGas: 2 hours.

Witness Name	Brief Description of Testimony	Time for Cross Exam (hours)	Time for Re-Direct
Dr. Arash Haghshenas & Danny Walzel	<p>Danny Walzel, P.E. is an engineer and Well Control Expert with Boots & Coots Services. He can testify to Boots & Coots' well control efforts between October 25, 2015 and December 14, 2015.</p> <p>Dr. Arash Haghshenas is a Well Control Engineer with Boots & Coots Services. He can testify to Boots & Coots' well control efforts between December 7, 2015 and February 18, 2016.</p>	<p>SED: 8 hours. Cal Advocates: 0.5 hours.</p>	<p>SoCalGas: 3 hours.</p>

Cal Advocates' Exhibit List

Exhibit Number	Description	Sponsoring Witness
CalPA-400	Opening Testimony – final	M. Botros A. Bach M. Taul T. Holzschuh
CalPA R-400	Opening Testimony - redlined	M. Botros A. Bach M. Taul T. Holzschuh
CalPA-401	Supporting Attachments to Opening Testimony	M. Botros A. Bach M. Taul T. Holzschuh
CalPA-402	Sur-Reply Testimony	M. Botros A. Bach M. Taul T. Holzschuh
CalPA-403	Supporting Attachments to Reply Testimony	M. Botros A. Bach M. Taul T. Holzschuh

Cal Advocates' Witness List

Witness	Short Description of Testimony	Materially Disputed Factual Issues²
A. Bach and M. Taul - Panel	SoCalGas' management failed to deal with Integrity management issues by taking prudent action in response to the 1988 vertilog results	<ol style="list-style-type: none"> 1. Whether SoCalGas' failure to perform risk assessment for well integrity management at its Aliso Canyon gas storage facility (Aliso Canyon) was reasonable. 2. Whether SoCalGas had any standards or policies in place requiring casing wall thickness inspections for its storage wells, and if not, whether failure to have such standards or policies in place was reasonable. 3. Whether it was reasonable that SoCalGas' integrity management program at Aliso Canyon did not inspect the wall thickness of well casings. 4. Whether SoCalGas' integrity management program was designed to identify the potential for corrosion in its wells. 5. Whether SoCalGas had standards or policies in place requiring facility-wide analysis of well casing failures before the Leak, and if not, whether failure to have standards or policies requiring such an analysis was reasonable.

² Note that parties were provided limited notice of the request for this list and it is provided by Cal Advocates for illustrative purposes only and should not be relied upon to dictate the nature or scope of cross-examination. Note also that Cal Advocates relies on information contained in the Blade Report and SED's testimony as to the material issues in dispute, as well as its own testimony.

Witness	Short Description of Testimony	Materially Disputed Factual Issues²
T. Holzschuh	<p>SoCalGas Failed to Act upon Warnings from its Storage Engineering Manager regarding Risks of Major Leaks</p> <p>SoCalGas had other available casing inspection tools to monitor the integrity of SS-25</p>	<ol style="list-style-type: none"> 1. Whether the fact that SoCalGas never performed a casing wall thickness inspection of SS-25 was reasonable. 2. Whether it was reasonable that SoCalGas' integrity management program at Aliso Canyon did not inspect the wall thickness of well casings. 3. Whether SoCalGas was on notice that its operations at Aliso Canyon constituted a hazardous activity requiring a heightened duty of care. 4. Whether alternatives to Vertilog to measure the wall thickness of well casings were available prior to the Leak, what they were, and when were they available. 5. Whether it was reasonable for SoCalGas not to pursue other options for inspecting well casing wall thickness as part of a comprehensive integrity management program. 6.
M. Taul	<p>SoCalGas Failed to demonstrate reasonable and prudent recordkeeping practices</p> <p>SoCalGas' testimony incorrectly implies that SoCalGas performed weekly casing inspections and monthly site inspections on its well sites</p>	<ol style="list-style-type: none"> 1. Whether SoCalGas' record keeping practices were reasonable. 2. Whether SoCalGas' record keeping practices violate any laws, rules, regulations, or industry standards. 3. Whether SoCalGas provided complete and accurate records related to

Witness	Short Description of Testimony	Materially Disputed Factual Issues ²
		well SS-25 to SED and Cal Advocates.
A. Bach	<p>SoCalGas Failed to Adequately Perform Post-Failure Analysis and Proactively Determine Systematic Risks</p> <p>SOCALGAS' testimony incorrectly implies that SOCALGAS Performed Mechanical integrity inspections and well evaluations during workovers on SS-25</p> <p>SoCalGas' reply testimony incorrectly states that 1988 vertilog technology was not reliable or accurate</p>	<ol style="list-style-type: none"> 1. Whether SoCalGas' failure to perform risk assessment for well integrity management at its Aliso Canyon gas storage facility (Aliso Canyon) was reasonable. 2. Whether SoCalGas' failure to investigate or perform failure analyses for previous well casing leaks at Aliso Canyon was reasonable. 3. Whether SoCalGas' integrity management program at Aliso Canyon was reasonably sufficient to ensure safe operation of the facility and if not, what kind of integrity management programs would have been reasonably sufficient to ensure safe operation of the gas storage wells at Aliso Canyon. 4. What standards or policies did SoCalGas have in place before the leak at the Standard Sesnon 25 gas well at Aliso Canyon (SS-25) that began on October 23, 2015 (Leak) to ensure the safety of the Aliso Canyon facility. 5. Whether SoCalGas had any standards or policies in place requiring casing wall thickness inspections for its storage wells, and if not, whether failure to have

Witness	Short Description of Testimony	Materially Disputed Factual Issues²
		<p>such standards or policies in place was reasonable.</p> <p>6. Whether it was reasonable that SoCalGas' integrity management program at Aliso Canyon did not inspect the wall thickness of well casings.</p> <p>7. Whether the technology was available to inspect the wall thickness of well casings prior to the Leak?</p> <p>8. Whether SoCalGas' integrity management program was designed to identify the potential for corrosion in its wells.</p> <p>9. Whether SoCalGas had standards or policies in place requiring facility-wide analysis of well casing failures before the Leak, and if not, whether failure to have standards or policies requiring such an analysis was reasonable.</p> <p>10. Whether SoCalGas engaged in facility-wide analysis of well casing failures before the Leak, and if not, whether failure to perform such an analysis was reasonable.</p> <p>11. Whether it was reasonable for SoCalGas not to perform a Vertilog or other type of inspection to identify the potential for corrosion in all twenty wells identified in the 1988 Memorandum.</p> <p>12. Whether SoCalGas' concerns regarding the accuracy of Vertilog</p>

Witness	Short Description of Testimony	Materially Disputed Factual Issues²
		<p>inspections were reasonable.</p> <p>13. Whether SoCalGas' concerns regarding the accuracy of Vertilog inspections in identifying casing leaks justified SoCalGas' discontinuation of the 1988-1990 Vertilog testing of the remaining 13 wells identified for testing at Aliso Canyon.</p> <p>14. Whether it was reasonable for SoCalGas not to perform any follow-up investigation into the reasons for corrosion and reduced wall thickness in the seven wells that were Vertilog tested pursuant to the 1988 Memorandum.</p> <p>15. Whether the objective of the 1988-1990 Vertilog tests was to identify the mechanical condition of the casing and potential corrosion, rather than to identify casing leaks.</p> <p>16. Whether it was reasonable for SoCalGas not to pursue other options for inspecting well casing wall thickness as part of a comprehensive integrity management program.</p> <p>17. Whether alternatives to Vertilog to measure the wall thickness of well casings were available prior to the Leak, what they were, and when were they available.</p>

SED's Exhibit List

Proceeding No.		Aliso Canyon Storage Facility OII & OSC	ALJs
		EXHIBIT INDEX	
Exh. No.	Sponsor/Witness	Description/Title of Exhibit	Date Served
SED-200	M. Felts	Safety and Enforcement Division Opening Testimony of Margaret Felts	
SED-201	M. Felts	Safety and Enforcement Division Opening Testimony of Margaret Felts -Supporting Attachments	
SED-202	M. Felts	Safety and Enforcement Division Opening Testimony of Margaret Felts– Attachment Index	
SED-203	M. Felts	Safety and Enforcement Division Reply Testimony of Margaret Felts	
SED-204	M. Felts	Safety and Enforcement Division Reply Testimony of Margaret Felts Supporting Attachments	
SED-C-204	M. Felts	Safety and Enforcement Division Reply Testimony of Margaret Felts – Supporting Attachments (Confidential Version)	
SED-205	M. Felts	Safety and Enforcement Division Chapter 1 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Tim Hower and Charlie Stinson	
SED-206	M. Felts	Safety and Enforcement Division Chapter 2 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Robert A. Carnahan	
SED-207	M. Felts	Safety and Enforcement Division Chapter 3 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of L. William Abel	
SED-208	M. Felts	Safety and Enforcement Division Chapter 4 Prepared Sur-Reply Testimony of Margaret Felts in	

		Response to Reply Testimony of Danny Walzel and Arash Haghshenas	
SED-209	M. Felts	Safety and Enforcement Division Chapter 5 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Travis Sera	
SED-210	M. Felts	Safety and Enforcement Division Chapter 6 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Amy Kitson	
SED-211	M. Felts	Safety and Enforcement Division Chapter 7 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Dan Neville	
SED-212	M. Felts	Safety and Enforcement Division Chapter 8 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Darrel Johnson	
SED-213	M. Felts	Safety and Enforcement Division Chapter 9 Prepared Sur-Reply Testimony of Margaret Felts in Response to Reply Testimony of Greg Healy	
SED-214	M. Felts	Safety and Enforcement Division Sur-Reply Testimony Reading Guide and Index	
SED-215	M. Felts	Safety and Enforcement Division Sur-Reply Testimony – Supporting Attachments	
SED-216	M. Felts	Safety and Enforcement Division Sur-Reply Testimony of Margaret Felts Related to Violation 331	
SED-217			
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SED's Witness List

Witness	Short Description of Testimony	Materially Disputed Factual Issues
Margaret Felts	<p>Opening Testimony</p> <p>Reply Testimony</p> <p>Sur-Reply Testimony</p> <p>Sur-Reply Testimony Related to 331</p>	<ol style="list-style-type: none"> 1. Whether SoCalGas unreasonably failed to answer certain data requests or other discovery related to violations 1-88 and 327-331 identified in SED's Opening Testimony? 2. Whether SoCalGas' failure to follow its internal 1988 plan to check the casing of 13 wells, including well SS-25, for metal loss was reasonable. 3. What, if any, risk or integrity management program did SoCalGas have in place prior to the incident? 4. What, if any, risk or integrity management program did SoCalGas implement prior to the incident? 5. Did SoCalGas unreasonably fail to implement a risk or integrity management program for Aliso Canyon storage facility prior to the incident was reasonable? 6. Did SoCalGas unreasonably fail to start its integrity management program at Aliso until it could collect recovery for it in rates? 7. Did SoCalGas unreasonably fail to operate well SS-25 without a backup mechanical barrier to its 7 inch production casing? 8. Did SoCalGas unreasonably operate Aliso Canyon Natural Gas storage facility without internal policies that required well casing wall thickness inspection and measurement? 9. Whether SoCalGas' surface plumbing failures on SS-25 unreasonably prevented the filling of that well. 10. Whether SoCalGas unreasonably allowed groundwater to cause corrosion on the 7 inch and 11 3/4 inch casings on well SS-25? 11. Whether SoCalGas unreasonably failed to assess the relationship between groundwater in and around the SS-25

Witness	Short Description of Testimony	Materially Disputed Factual Issues
		<p>wellsite and surface casing corrosion of SS-25?</p> <ol style="list-style-type: none"> 12. Whether SoCalGas unreasonably failed to protect well equipment (including surface casing strings and uncemented production casings) against corrosion? 13. Whether SoCalGas unreasonably failed to have continuous pressure monitoring for well surveillance? 14. If SoCalGas failure to have continuous pressure monitoring for well surveillance was unreasonable, did that unreasonably prevent an immediate identification of the SS-25 leak, and accurate estimation of the gas flow rate? 15. Whether SoCalGas and its contractors reasonably took necessary steps to kill well SS-25 during well kill attempts 2 through 6. 16. Of those steps that SoCalGas took to kill well SS-25, whether those were reasonably taken. 17. Whether SoCalGas failed to take took reasonable corrosion control (including cathodic protection) measures on its wells at Aliso Canyon Natural Gas Storage Facility? 18. Whether SoCalGas failed to reasonably keep and manage its records related to operation and maintenance of Aliso Canyon wells organized, accurate, traceable, verifiable and complete. 19. Whether SoCalGas' extraction and venting of oil into the atmosphere from well SS-25 during the SS-25 incident on November 13, 2015 was reasonable? 20. Whether SoCalGas failed to reasonably test the mist that well SS-25 released into the air on or around November 13, 2015? 21. Whether SoCalGas reasonably disclosed to the public the information it had regarding the release of oil into the air from well SS-25 on or around November 13, 2015?

Witness	Short Description of Testimony	Materially Disputed Factual Issues
		<p>22. Whether SoCalGas reasonably provided SED with requested information related to the release of oil from well SS-25 on or around November 13, 2015?</p> <p>23. Whether SoCalGas reasonably released to SED communications it had with its well kill contractors related to the attempts to kill well SS-25?</p> <p>24. Whether SoCalGas properly tested the mist emitted from well SS-25 on or around November 13, 2021?</p> <p>25. SED incorporates by reference those issues of material fact identified by Public Advocates Office.</p>

SED and Cal Advocates Cross and Re-Direct Time Estimates

	Party	Written Testimony Witness	Cross Estimate	Redirect Estimate
1	SED	Margaret Felts (O, R, S, 3O [s], 3S)	SoCalGas – 15 hours	SED - 2 hours
2	Cal Advocates	Mina Botros (O, S)	SoCalGas – 0 hours	Cal Advocates – .25 hour
3	Cal Advocates	Alan Bach (O, S)	SoCalGas – 1.5 hours	Cal Advocates – .25 hour
4	Cal Advocates	Matthew Taul (O, S)	SoCalGas – 1 hour	Cal Advocates – .25 hour
5	Cal Advocates	Tyler Holzchuh (O)	SoCalGas – 2 hours	Cal Advocates – .50 hour
6	Cal Advocates	Alan Bach & M.Taul (O)	SoCalGas – 1.5 hours	Cal Advocates – .25 hour

Blade Cross and Re-Direct Time Estimates

	Party	Written Testimony Witness	Cross Estimate	Redirect Estimate
7	Blade (Non-Party)	Ravi Krishnamurthy	SoCalGas – 9 hours	Blade – 1 hour SED – 1.0 hour
8	Blade (Non-Party)	Randall Rudolf		
9	Blade (Non-Party)	Bill Whitney		
10	Blade (Non-Party)	Nigel Alves		
11	Blade (Non-Party)	Ismail Ceyhan		
12	Blade (Non-Party)	Greg Asher		
13	Blade (Non-Party)	Jerald L. Shursen		

