



**Report on the Responses to the Calendar Year 2017
Customer Satisfaction Survey
for the
Bureau of Forensic Services**

The following derives its data from a survey of seven questions sent to customers who submitted samples to the Bureau during the period from January 1, 2017 through December 31, 2017.

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AN AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION accredited TESTING Laboratory, meeting ISO 17025 and A2LA requirements
(SINCE February 9, 2017 in the subdisciplines of Fire Debris Analysis, Low Explosives Analysis,
and Analysis of Unknown Chemicals from Clandestine Laboratories)



AN ASCLD/LAB-International ACCREDITED TESTING LABORATORY meeting ISO 17025 and ASCLD/LAB-International requirements
(SINCE July 20, 2010 in the subdisciplines of Fire Debris, Explosives and Analysis of Unknowns)

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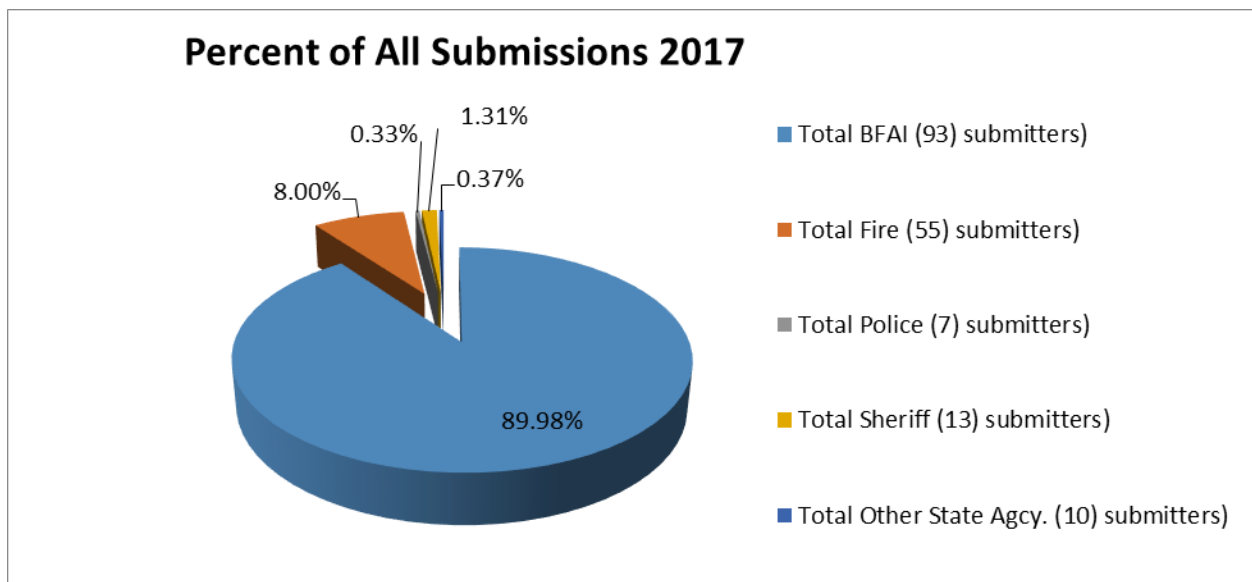
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Submitters:

During the survey period, a total of one hundred seventy-eight (178) submitters were identified. Twenty-four (24) individuals had their emails returned as they were no longer at the email address we had available. The submitters represented eighteen (18) Fire Departments, seven (7) Police Departments, twelve (12) Sheriff’s Offices, twelve (12) BFAI Field Offices, the Florida Department of Corrections, the Florida Department of Agriculture and Consumer Services, Bureau of Insurance Fraud, Florida Highway Patrol, Florida Fish and Wildlife Conservation Commission, and the State Attorney’s Office.

The majority of “chemical evidence submissions” (80.27%) were made by detectives from the Bureau of Fire and Arson Investigations (BFAI) which is another Bureau within our Division of Investigative and Forensic Services (DIFS). The majority of submissions from Sheriff’s Offices were for identification of hazardous chemicals seized during clandestine drug laboratory investigations. BFAI was responsible for 100% of Digital Image Submissions. Digital Image Submissions, preparation and provision of public records requests for files and images, and forensic video analysis are included in the statistics for “all submissions”.

Type of Agency	Number of Separate Agencies or Field Offices	Number of Submitters by Agency Type	Percent of chemical Submissions	Percent of all Submissions
BFAI	12	93	80.27%	88.98%
Fire Dept.	18	55	16.37%	8.00%
Police Dept.	7	7	0.64%	0.33%
Sheriff's Office	12	13	2.56%	1.31%
Other (State Agencies)	6	10	0.16%	0.37%
Totals	55	178	100%	100%



Of the non-BFAI submitting agencies, six (6) were identified as submitting thirty-five (35) or more samples each (these were from six (6) fire departments).

Agency	Samples
Hillsborough County Fire Marshal	172
Orlando Arson and Bomb Squad	130
Miami-Dade Fire Rescue	81
Clearwater Fire Department	64
Palm Beach County Fire Rescue	37
Tampa Fire Rescue	35

A breakout of the physical evidence submissions made by our largest customer, the Bureau of Fire and Arson Investigations, indicates that the average number of chemical analysis submissions per detective who submitted physical evidence items in the target time frame (ninety-three (93) detectives) was 21.57 samples per detective. The field office with the greatest number of chemical analysis submissions was Jacksonville with 362 followed by Orlando, Plantation, and Fort Myers all over 200. The average number of digital image case submissions per detective who submitted digital image cases in the target time frame (seventy-nine (79) detectives) was 27.78 cases per detective. The field office with the highest number of digital image case submissions (DI) was Jacksonville with 508.

Field Office	Samples	DI Cases
Jacksonville	362	508
Lake Wales	204	163
Orlando	188	306
Fort Myers	182	168
Ocala	182	181
Daytona	173	225
Plantation	168	217
West Palm Beach	143	165
Pensacola	131	254
Tampa	108	81
Panama City	86	165
Tallahassee	79	151
Totals	2006	2584

The top ten (10) individual submitters of fire debris analysis requests are listed in the following table.

Detective	FO	Samples
Case	Lake Wales	108
Baker	Jacksonville	87
White	Jacksonville	86
Lepper	Fort Myers	81
Hall	Ocala	79
Ruland, Jennifer	Daytona	64
Robbins	Jacksonville	56
Newman	Daytona	49
Stafford	Panama City	46
Streichert	Panama City	46
Total		591 (29.46%)

The top ten (10) individual submitters of digital image cases are listed in the following table:

Detective	FO	DI Cases
Newman	Daytona	112
Baker	Jacksonville	82
Little	Jacksonville	68
VanVelsor	Orlando	62
Huffman	Jacksonville	60
Pineda	Pensacola	58
Clare	West Palm Beach	57
White	Jacksonville	56
Bass	Jacksonville	55
Hall	Ocala	54
Total		664 (25.69%)

The Survey:

The Bureau's Customer Satisfaction Survey was in an electronic format and was successfully delivered to one hundred fifty-four (154) of the identified submitters after subtracting those whose emails were indicated as being undeliverable. A survey return percentage above 25% of those sent is considered "significant". A total of eighty-six (86) customers (55.84%) provided responses for at least one of the five (5) BFS services listed before the survey deadline. Some customers who utilized more than one of our services provided responses for those services as well.

BFS services which the customers were asked to rank individually:

- Fire Debris Analysis
- Explosives Analysis
- Chemical Unknowns Analysis
- Digital Image Archival
- Forensic Video Examination

If a customer did not use a service, they did not provide responses. Each of the five (5) services was assessed by four (4) attributes:

- Level of satisfaction with the work product
- Usefulness of the work product in closing their cases
- Impact on the investigator or their agency if the service were no longer available
- Quality of any personal contact with BFS staff

Again, if the customer did not wish to address a particular attribute they were allowed to pass without ranking it.

The ranking scale for all attributes was:

- Very High
- High
- Neutral
- Low
- Very Low

There were different numbers of respondents for each of the attributes in each of the five services. A table showing the number of respondents for each service:

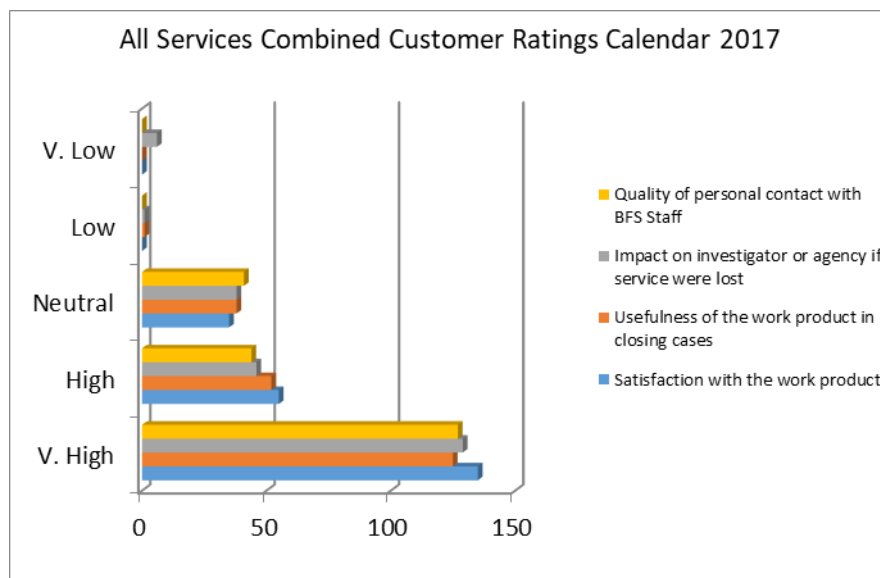
Respondents	Raw Number	Percent responding to a portion of the survey
Maximum number that responded to a portion of the survey	86	100.00%
Maximum respondents to issues on fire debris service	81	94.19%
Maximum respondents to issues on explosives service	44	51.16%
Maximum respondents to issues on chemical unknown service	39	45.35%
Maximum respondents to issues on digital imaging service	35	40.69%
Maximum respondents to issues on forensic video service	26	30.23%

Overview of All Services

If all responses for the survey were merged regardless of the service category a comprehensive view of the Bureau’s overall performance was created with the greatest weighting toward the chemical analyses that compose the bulk of our service requests. For calendar year 2017, the chemical requests (including QA/QC samples) totaled five thousand eight hundred seventy-two (5,872) and the imaging requests totaled two thousand seven hundred fifty-nine (2,759). The following tables and graphs show the statistical customer perception of each of the four attributes for all services combined:

All Services Merged	Count	Count	Count	Count	Count	Total
Attribute	V. High	High	Neutral	Low	V. Low	Response
Satisfaction with the work product	135	55	35	0	0	225
Usefulness of the work product in closing their cases	125	52	38	1	0	216
Impact on investigator or agency if service were lost	129	46	38	1	6	220
Quality of personal contact with BFS Staff	127	44	41	0	0	212

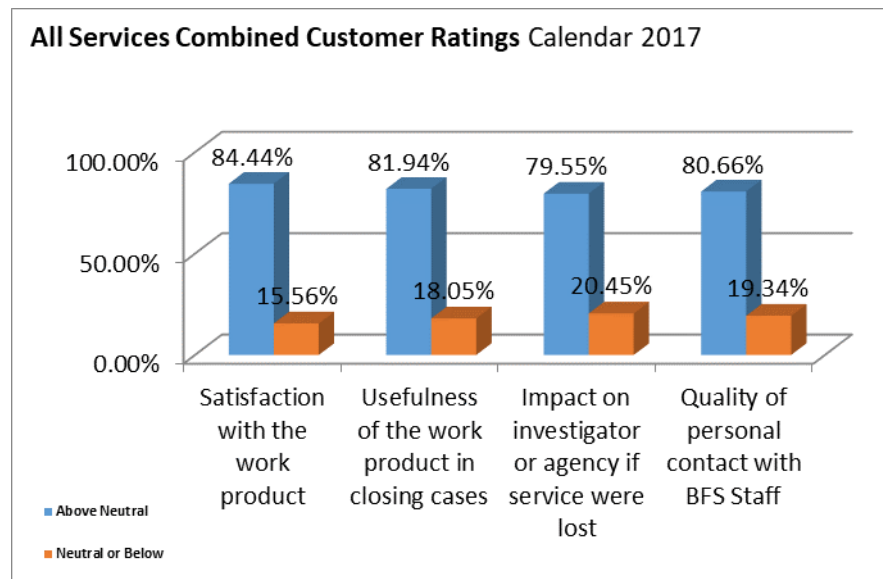
All Services Merged	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	60.00%	24.44%	15.56%	0.00%	0.00%
Usefulness of the work product in closing their cases	57.87%	24.07%	17.59%	0.46%	0.00%
Impact on investigator or agency if service were lost	58.64%	20.91%	17.27%	0.45%	2.73%
Quality of personal contact with BFS Staff	50.83%	20.75%	19.34%	0.00%	0.00%



The scope of this evaluation by customers is examined by combining the percent of responses that rank the attributes at “Very High” and “High” against all the responses that rank the attributes at “Neutral”, “Low”, or “Very Low”. This evaluation period shows similar

percentages in the percentages of “Very High” and “High” rankings compared with the previous evaluation periods. All ratings of “Very High” plus “High” are between 79.55% and 84.44% and is a significantly positive reflection of the overall value our customers place on our services and staff.

All Services Merged	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	84.44%	15.56%
Usefulness of the work product in closing their cases	81.94%	18.05%
Impact on investigator or agency if service were lost	79.55%	20.45%
Quality of personal contact with BFS Staff	80.66%	19.34%



This comprehensive ranking of all services by attributes shows that 79% or more of our customers rank each of the attributes (satisfaction, usefulness of the product, impact, and personal contact) at “High” or “Very High”. If we examine the statistics for the highest rating of only “Very High” the Bureau scores from above 57% to 60% for each attribute.

Each of the services were evaluated separately by the four attributes to determine areas where potential improvements may be possible. The number of work units associated with each service is listed below. The category “Explosives” includes both explosive determinations as well as the determinations of Chemical Unknowns. This will be evaluated further when the services are discussed separately.

01/01/2017 to 12/31/2017	Film Special Requests	Fire Debris Samples	QA/QC	Explosives	Images	Video	Total
Service Requests	117	2675	2828	369	2599	43	8631

Fire Debris Analysis Service

Fire debris analysis is the primary service provided by the Bureau. The individual samples and associated quality assurance analyses compose 68.03% (5,872 of 8,631) of the total number of work requests processed by the Bureau in the calendar year running from January 1, 2017 to December 31, 2017. Fire debris analysis, where we examine material from the fire scene for trace amounts of ignitable liquids possibly used to accelerate a fire, is accomplished with the use of gas chromatography-mass spectrometry (GC-MS).

Of all forensic sub-disciplines under the general category of “Trace Evidence,” fire debris is notoriously difficult to analyze. Ignitable liquids are complex mixtures of organic chemicals. In a sample of fire debris, these are intermingled with additional complex mixtures of organic chemicals (some of which are the same as some of the components of ignitable liquids) coming from the fire debris (burned substrates from the fire). The level of scrutiny required is high and the international guidelines for what may be determined are suggested by the American Society for Testing and Materials International E1618, “Standard Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography-Mass Spectrometry”. The number of negative determinations in fire debris analysis is higher than other disciplines either because the ignitable liquid did not survive the fire, was not on the sample submitted, or the components recovered did not meet the requirements of the Bureau SOP which uses ASTM recommendations for classification.

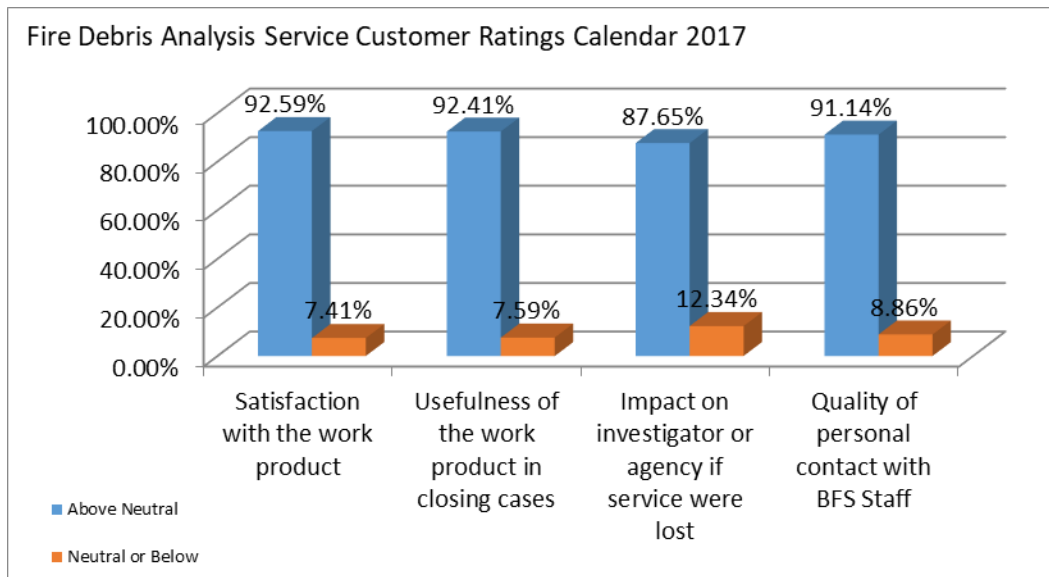
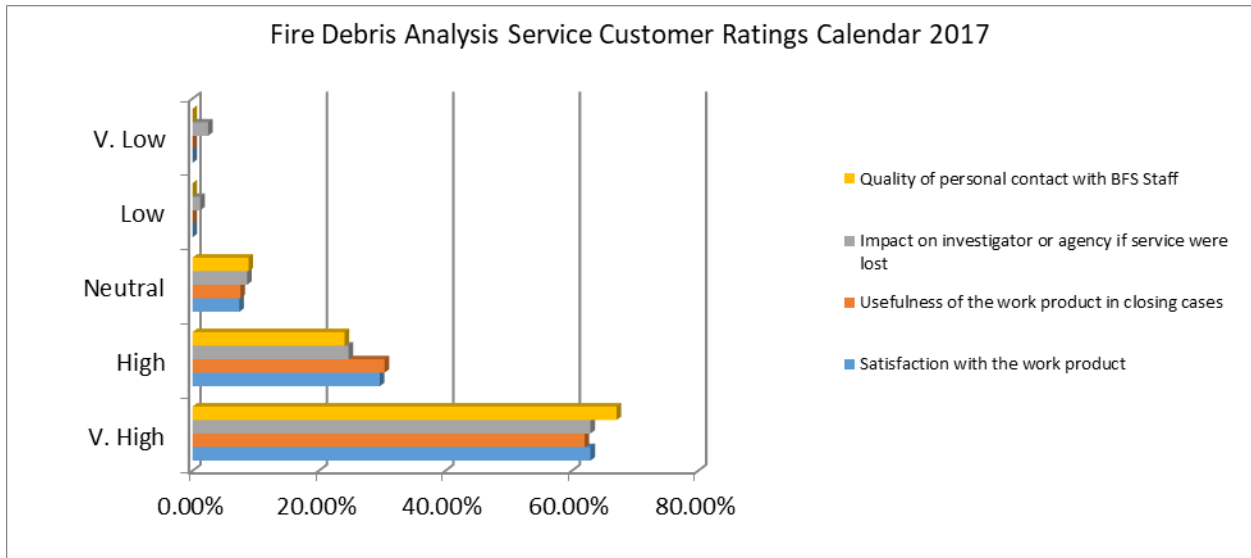
Our customers provided the following responses concerning their view of fire debris analysis service:

Fire Debris Service	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	62.96%	29.63%	7.41%	0.00%	0.00%
Usefulness of the work product in closing their cases	62.03%	30.38%	7.59%	0.00%	0.00%
Impact on investigator or agency if service were lost	62.96%	24.69%	8.64%	1.23%	2.47%
Quality of personal contact with BFS Staff	67.09%	24.05%	8.86%	0.00%	0.00%

Again, the scope of this evaluation by customers is more impressive when the statistics are examined by simply viewing the percent of responses that rank the attributes at “Very High” plus “High” against all the responses that rank the attributes at “Neutral” or lower.

Fire Debris Service	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	92.59%	7.41%
Usefulness of the work product in closing their cases	92.41%	7.59%
Impact on investigator or agency if service were lost	87.65%	12.34%
Quality of personal contact with BFS Staff	91.14%	8.86%

When over 92% of customers rank the usefulness of the work product to close their case investigations at “Very High” or “High” it is clear that the fire debris analysis provided by BFS is a necessary component to fire investigation in the State of Florida.



When 91.14% of customers rate the quality of their contact with staff as Very High or High, it speaks to the importance of positive customer communication and service exercised by all staff.

Explosives/ Chemical Unknowns Analysis Service

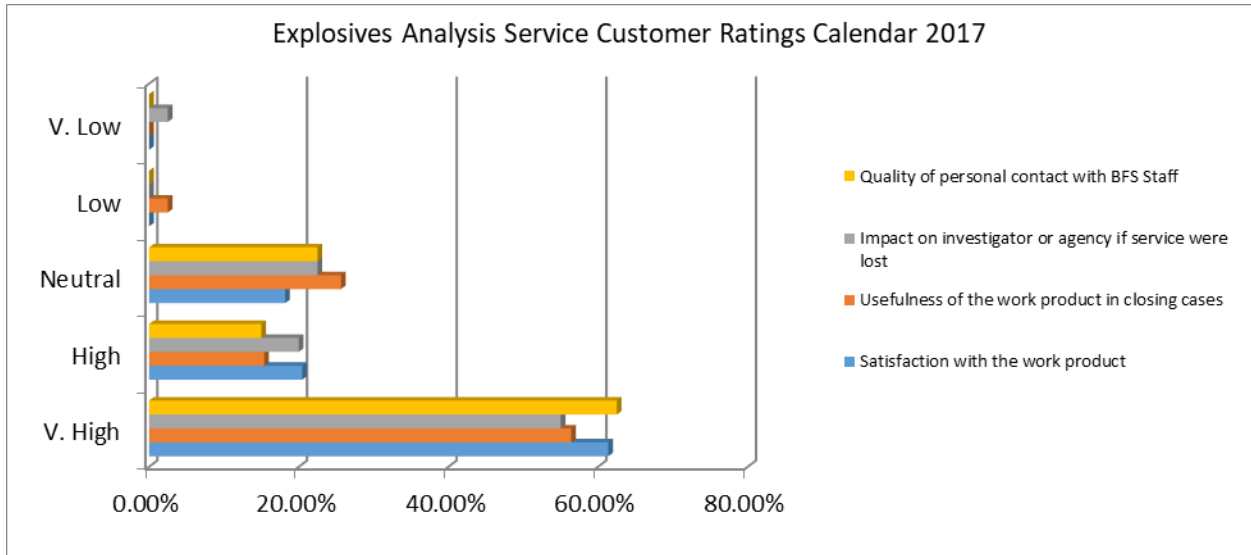
The determination of explosives, explosive residues, or chemical unknowns typically requires the use of multiple instruments on multiple sub-samples. Fire debris only requires a single analysis by gas chromatography-mass spectrometry (GC-MS). Organic (compounds with a carbon atom “backbone”) explosives, residues and Chemical Unknowns may require multiple separate analyses by GC-MS, Fourier Transform Infrared Spectroscopy (FTIR), and/or Ion Mobility Spectrometry (IMS). Inorganic (compounds without the carbon atom “backbone” and that typically dissociate into positively and negatively charged ions) explosives, residues and Chemical Unknowns may require multiple separate analyses by ion chromatography- mass spectrometry (IC-MS), Fourier Transform Infrared Spectrometry (FTIR), Raman Spectroscopy, and/or Energy Dispersive X-Ray Fluorescence Spectroscopy (XRF). In addition, all explosives, residues and Chemical Unknowns typically require additional various classic wet chemical “spot” tests and determination of pH (level of how acidic or basic a liquid may be).

The Bureau’s statistics currently combine all explosives, explosive residues, and Chemical Unknowns (true unknowns as well as chemicals from clandestine drug laboratories) under the single heading of “explosives.” Originally the Bureau only had the identification of the Chemical Unknowns as a minor task and incorporated them into the more numerous explosives determinations at the time. Over the years as clandestine laboratories proliferated the number of these samples became dominant. These have dropped significantly and our customers tell us the reason is that methamphetamine from foreign sources is so cheap that the number of people willing to make it has dropped significantly. This is the greatest drop on service requests by sub-discipline.

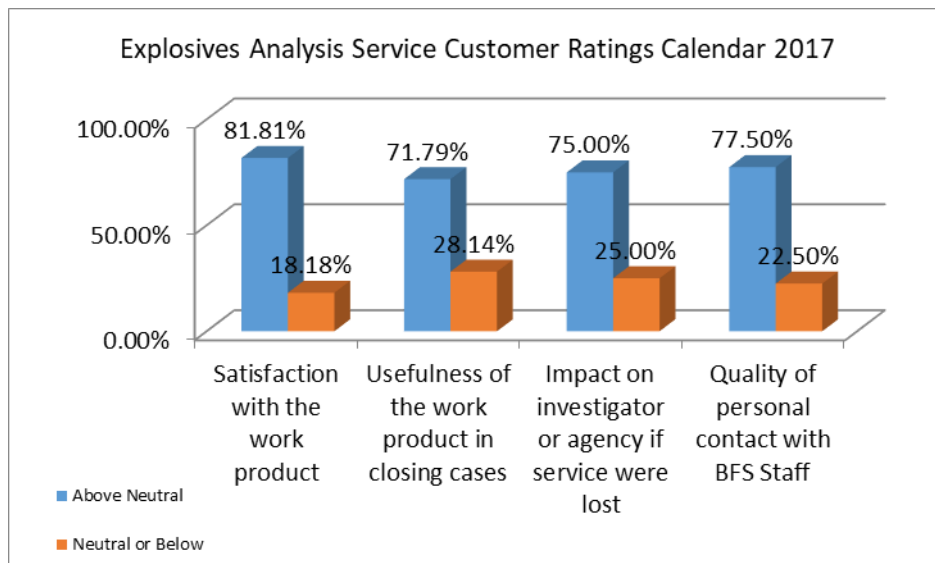
No other State of Florida laboratory is performing testing of non-drug chemicals collected from clandestine laboratory sites of evidence by investigators. Florida Statutes criminalize possession of the chemicals used to construct a clandestine drug laboratories (FS 893.033(2), FS 893.13 (g), FS 893.135(1)(f)1, and FS 893.149(1)). As a result, we had seen a steady increase in the number of these submissions through FY 2013/2014. By FY 2014/2015 the submissions had dropped and in calendar 2017 they had dropped further. Of the three hundred sixty-nine (369) “explosives” analyses completed by the Bureau from January 1, 2017 through December 31, 2017, only 27.10% or one hundred (100) were for actual explosives while 72.86% or two hundred sixty-nine (269) were for Clandestine Labs or Chemical Unknowns identification. This section will report the customer satisfaction rankings for the explosives analysis while unknown and clandestine laboratory chemicals analysis will be covered in the next section.

Explosives Service	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	61.36%	20.45%	18.18%	0.00%	0.00%
Usefulness of the work product in closing their cases	56.41%	15.38%	25.64%	2.50%	0.00%
Impact on investigator or agency if service were lost	55.00%	20.00%	22.50%	0.00%	2.50%
Quality of personal contact with BFS Staff	62.50%	15.00%	22.50%	0.00%	0.00%

To appreciate the scope of this evaluation by customers we will again examine the statistics by simply viewing the percent of responses that rank the attributes at “Very High” plus “High” against all the responses that rank the attributes at “Neutral” or lower.



Explosives Service	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	81.81%	18.18%
Usefulness of the work product in closing their cases	71.79%	28.14%
Impact on investigator or agency if service were lost	75.00%	25.00%
Quality of personal contact with BFS Staff	77.50%	22.50%

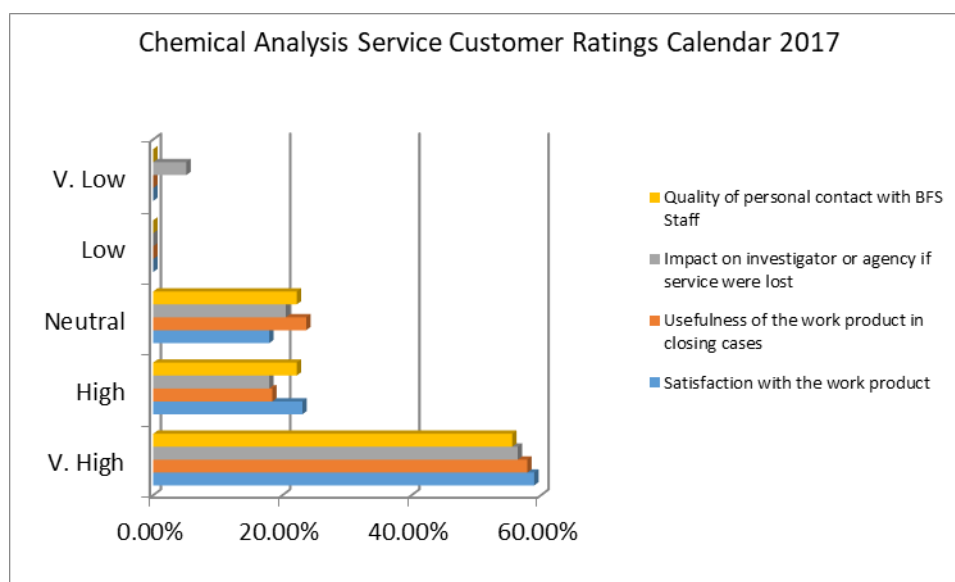


Overall, the ratings of “Very High” and “High” are higher than the previous review period. As with the previous review period a drop in favorable ratings to “neutral” and lower can be seen. With satisfaction with our current work product rated at “Very High” and “High” by 81.81% of our customers it is clear we are performing well above expectations.

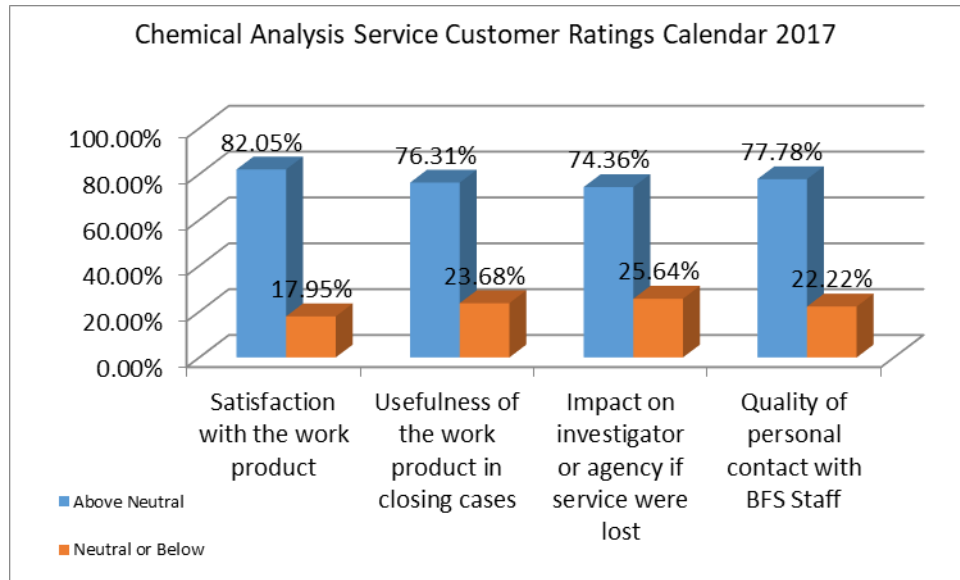
Chemical Unknowns Analysis Service

As was discussed at the beginning of the section on Explosives Analysis, the three hundred sixty-nine (369) “explosives” analyses completed by the Bureau from January 1, 2017 through December 31, 2017 can be broken down into only 27.10% or one hundred (100) were for actual explosives while 72.86% or two hundred sixty-nine (269) were for Clandestine Labs or Chemical Unknowns identification. In addition, organic based Chemical Unknowns may require multiple separate analyses by GC-MS, Fourier Transform Infrared Spectroscopy (FTIR), or Ion Mobility Spectrometry (IMS). Inorganic based Chemical Unknowns may require multiple separate analyses by ion chromatography- mass spectrometry (IC-MS), FTIR, Raman Spectroscopy, or X-Ray Fluorescence Spectroscopy (XRF) and will require screening by various classic wet chemical “spot” tests and determination of pH (level of how acidic or basic a liquid may be).

Chemical Unknowns Analysis Service	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	58.97%	23.08%	17.95%	0.00%	0.00%
Usefulness of the work product in closing cases	57.89%	18.42%	23.68%	0.00%	0.00%
Impact on investigator or agency if service were lost	56.41%	17.95%	20.51%	0.00%	5.13%
Quality of personal contact with BFS Staff	55.56%	22.22%	22.22%	0.00%	0.00%



Chemical Unknowns Service	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	82.05%	17.95%
Usefulness of the work product in closing cases	76.31%	23.68%
Impact on investigator or agency if service were lost	74.36%	25.64%
Quality of personal contact with BFS Staff	77.78%	22.22%



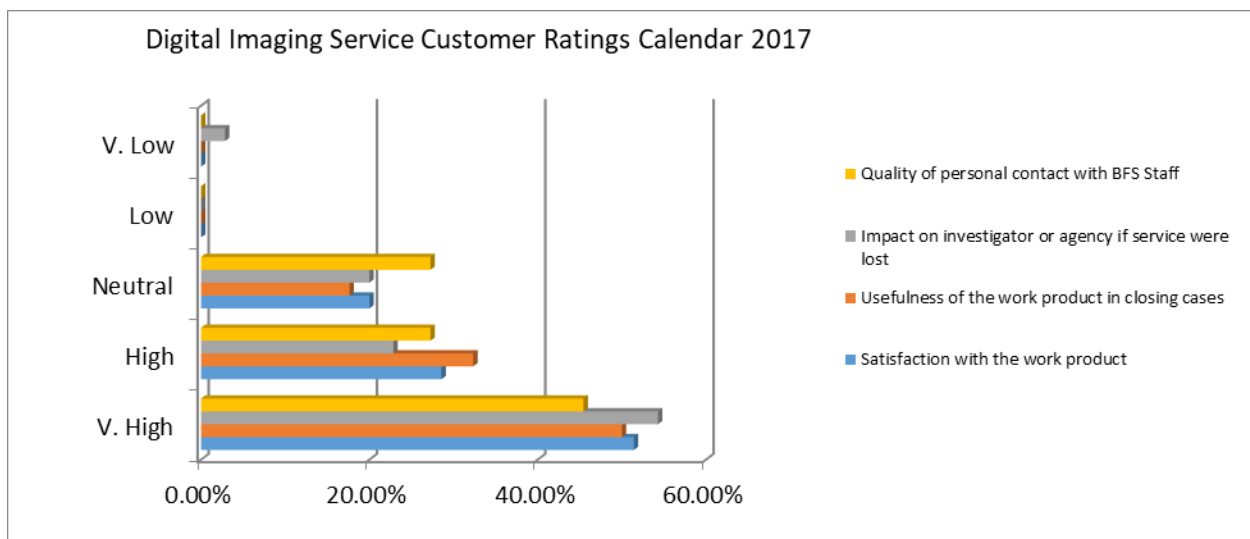
As with the Explosives Analysis Service, our customer ratings in the previous review period had shifted to the center with a small increase of customers rating the attributes as “Neutral”. The attribute assessing the impact on the investigator should the laboratory not be available to them is attributable to the same issues affecting the “explosives” section of analyses. With all attributes at 74% or higher for “Very High” and “High” it indicates the vast majority of our customers have a strong positive view of the work we offer.

Digital Image Processing Service

As was stated earlier, this service is only performed for the investigators from the Bureau of Fire and Arson Investigations (BFAI). We act as the central repository for images from scene investigations. The images are automatically uploaded in the field to a server which we then track and can access to provide the archived images. Each Detective has access to his or her file folder. Supervisors have access to their subordinate staff's folders. On occasion, Detectives will need the reverse process where archived images will be restored to them for their use in investigation or for courtroom presentations.

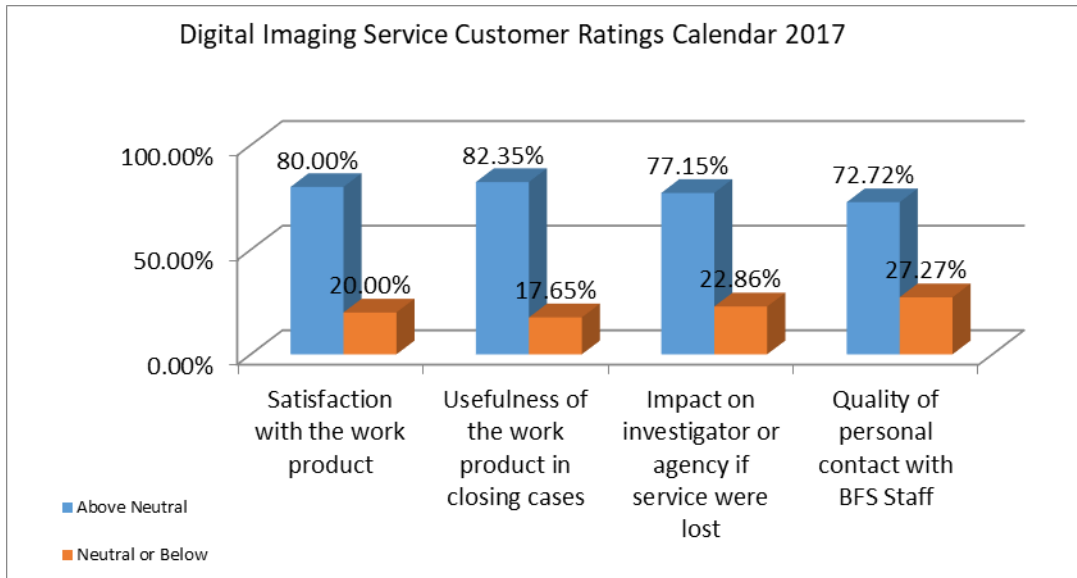
Items sent after May 2012, are stored on a server that is backed up each night on a remote secondary server for Disaster Recovery purposes. The service includes transfer and archival of digital images plus fulfilling requests for reproduction of archived photographs and images. This comprises 30.11% of the service requests processed by the Bureau from January 1, 2017 to December 31, 2017 (2,599 of 8,631 requests). A total of ninety-three (93) BFAI Detectives transferred images to our centrally secure archive. With only a maximum of thirty-five (35) of them responding to this section of the survey it would appear that fewer than half (37.63%) of the BFAI Detectives are participating in completion of this portion of the survey and by extension may be a minority of the other respondents to the other portions of the survey.

Digital Imaging Service	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	51.43%	28.57%	20.00%	0.00%	0.00%
Usefulness of the work product in closing their cases	50.00%	32.35%	17.65%	0.00%	0.00%
Impact on investigator or agency if service were lost	54.29%	22.86%	20.00%	0.00%	2.86%
Quality of personal contact with BFS Staff	45.45%	27.27%	27.27%	0.00%	0.00%



Because there is minimal interaction between laboratory staff and investigators once the items are archived, investigators may have a greater tendency to view the work in this service area as not affecting them, meeting their needs, or “Neutral”. This is seen in the table and chart below.

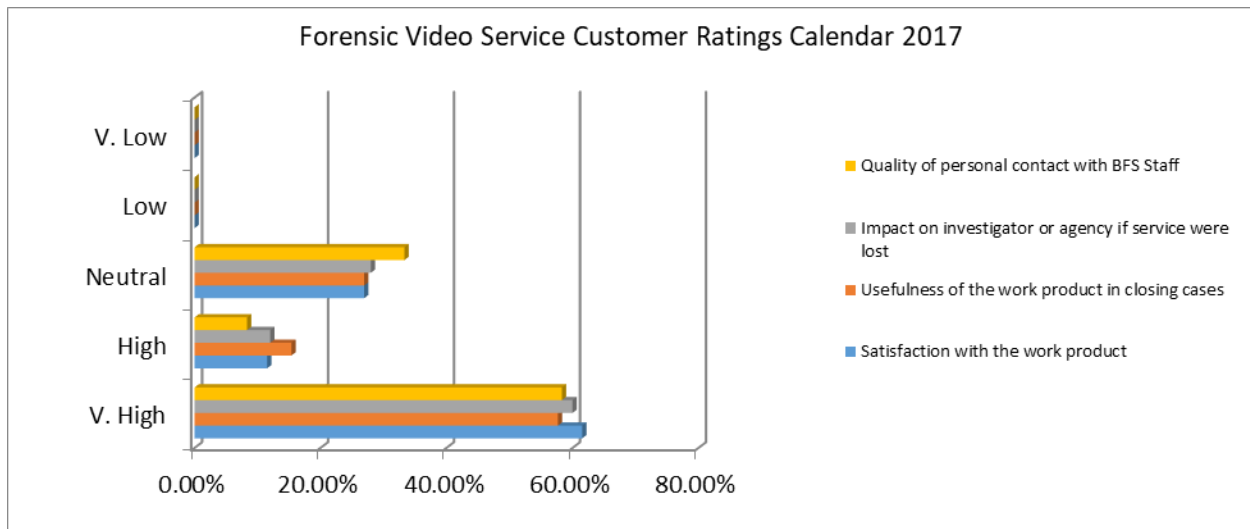
Digital Imaging Service	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	80.00%	20.00%
Usefulness of the work product in closing their cases	82.35%	17.65%
Impact on investigator or agency if service were lost	77.15%	22.86%
Quality of personal contact with BFS Staff	72.72%	27.27%



Forensic Video

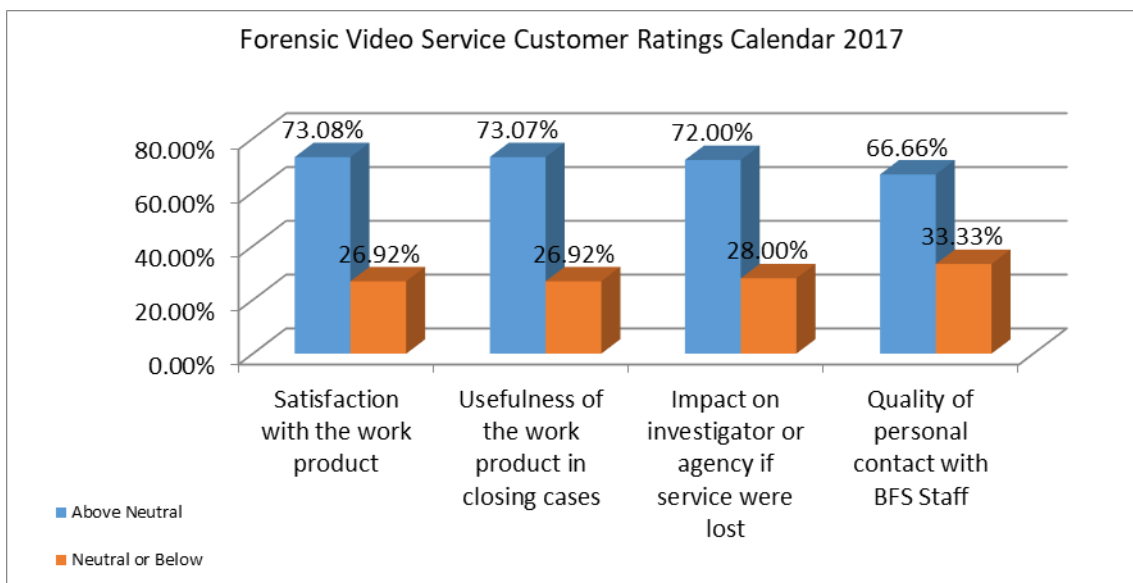
For the review period all official reports from this section were issued as reports from the BFAI detective who performed the examinations or requests for assistance. BFS provides the facility, equipment, and an analyst to assist in this service area and to provide customers with a consistent point of contact who can often provide immediate information, submission advice, or results from cases which are complete.

Forensic Video Service	Percent	Percent	Percent	Percent	Percent
Ranking	V. High	High	Neutral	Low	V. Low
Satisfaction with the work product	61.54%	11.54%	26.92%	0.00%	0.00%
Usefulness of the work product in closing their cases	57.69%	15.38%	26.92%	0.00%	0.00%
Impact on investigator or agency if service were lost	60.00%	12.00%	28.00%	0.00%	0.00%
Quality of personal contact with BFS Staff	58.33%	8.33%	33.33%	0.00%	0.00%



The value of the service and the information it can provide to the investigator is acknowledged by the customers. However, the ability to process and manage video is severely limited by the quality of the original camera that captured the image or the resolution of the data as it was stored. A low quality and low resolution camera will not capture images with sufficient detail to have evidentiary value. At the same time the storage capacity of digital systems can become an issue even when a high quality camera is used. In order to increase the number of hours of video that can be recorded on a drive or tape, the owner of the security system will lower the resolution. Thus, it is common to not be able to provide the investigator with all the information requested or to completely process the video. These are the direct component causes whereby this service has higher “Neutral” rankings. However, while the value of the service itself was only ranked from 66% to just over 73% “High” and “Very High”, the ratings for the quality of contact with the personnel in the section was at 66.66% “High” plus “Very High”.

Forensic Video Service	Percent	Percent
Ranking	V. High + High	Neutral, Low, or V. Low
Satisfaction with the work product	73.08%	26.92%
Usefulness of the work product in closing their cases	73.07%	26.92%
Impact on investigator or agency if service were lost	72.00%	28.00%
Quality of personal contact with BFS Staff	66.66%	33.33%



The Survey:

Input and comments from the customers were solicited in the last two questions. This report will provide an overview or synopsis of the most pertinent findings.

Question 6: Are there any BFS personnel you would like to identify regarding their work or contacts with you (positive or negative)?

There were no negative comments listed out of ten (10) responses to this question. The ten were all positive or null comments. There were three (3) comments praising Bureau staff in general or specifically for their willingness to assist customers in answering various questions and their degree of professionalism. Two staff members were listed specifically in the responses. Each had positive comments about their ability, willingness to help, or professionalism. They are:

- Amy Pearson (2 positive)
- Sam Blittman (1 positive)

Question 7: Do you have any general comments or complaints regarding the work, personnel, or consultations? Do you have any suggestions for improvements we can make or additional services you would like to see?

The ten (10) comments provided were all null and none provided comments or queries which need to be addressed.

This ends the report on the responses to the survey for January 1, 2017 to December 31, 2017.

This report may be used in the Bureau's Business Plan, Management Review, or to answer other questions regarding a statistical evaluation of the bureau's customers or their opinions on the quality of service received.