



ANALYTICAL SUMMARY REPORT

July 27, 2018

Bitterroot River Protection Association
PO Box 8
Stevensville, MT 59870

Work Order: H18070248 Quote ID: H1630 - 2018 Monitoring Parameters

Project Name: Bitterroot River Mainstem

Energy Laboratories Inc Helena MT received the following 6 samples for Bitterroot River Protection Association on 7/12/2018 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H18070248-001	BITR-COBITTR 06 USGS Gauge	07/10/18 10:03	07/12/18	Aqueous	Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate E365.1 Digestion, Total P Nitrogen, Total Persulfate A4500 N-C Phosphorus, Orthophosphate as P Phosphorus, Total
H18070248-002	BITR-C05BITTR03 Main St	07/10/18 12:00	07/12/18	Aqueous	Same As Above
H18070248-003	COMBITR04 Veterans	07/10/18 13:00	07/12/18	Aqueous	Same As Above
H18070248-004	COMBITR03 Florence	07/10/18 14:45	07/12/18	Aqueous	Same As Above
H18070248-005	COMBITR03 Florence Dup	07/10/18 14:45	07/12/18	Aqueous	Same As Above
H18070248-006	COMBITR03 Florence Blank	07/10/18 14:45	07/12/18	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



CLIENT: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Work Order: H18070248

Report Date: 07/27/18

CASE NARRATIVE

The samples in which the Ortho Phosphorus was greater than the Total Phosphorus were re-analyzed. The re-analysis confirmed the original data. wj 7/26/18



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-001
Client Sample ID: BITR-COBITTR 06 USGS Gauge

Report Date: 07/30/18
Collection Date: 07/10/18 10:03
Date Received: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:22 / kmd
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01	0.009	E353.2	07/12/18 12:17 / cmm
Nitrogen, Total	0.06	mg/L		0.04	0.01	A4500 N-C	07/13/18 14:37 / cmm
Phosphorus, Orthophosphate as P	0.011	mg/L	H	0.001	0.001	E365.1	07/12/18 12:52 / cmm
Phosphorus, Total as P	0.010	mg/L		0.003	0.0004	E365.1	07/25/18 15:46 / kmd

Report Definitions:
RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

MDL - Method detection limit
QCL - Quality control limit.
H - Analysis performed past recommended holding time.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-002
Client Sample ID: BITR-C05BITTR03 Main St

Report Date: 07/30/18
Collection Date: 07/10/18 12:00
Date Received: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:23 / kmd
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01	0.009	E353.2	07/12/18 12:21 / cmm
Nitrogen, Total	0.09	mg/L		0.04	0.01	A4500 N-C	07/13/18 14:39 / cmm
Phosphorus, Orthophosphate as P	0.010	mg/L	H	0.001	0.001	E365.1	07/12/18 12:53 / cmm
Phosphorus, Total as P	0.011	mg/L		0.003	0.0004	E365.1	07/25/18 15:47 / kmd

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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-003
Client Sample ID: COMBITR04 Veterans

Report Date: 07/30/18
Collection Date: 07/10/18 13:00
Date Received: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:24 / kmd
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01	0.009	E353.2	07/12/18 12:22 / cmm
Nitrogen, Total	0.09	mg/L		0.04	0.01	A4500 N-C	07/13/18 14:40 / cmm
Phosphorus, Orthophosphate as P	0.012	mg/L		0.001	0.001	E365.1	07/12/18 12:54 / cmm
Phosphorus, Total as P	0.013	mg/L		0.003	0.0004	E365.1	07/25/18 15:49 / kmd

Report RL - Analyte reporting limit.
Definitions: MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

MDL - Method detection limit
QCL - Quality control limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-004
Client Sample ID: COMBITR03 Florence

Report Date: 07/30/18
Collection Date: 07/10/18 14:45
DateReceived: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:25 / kmd
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01	0.009	E353.2	07/16/18 10:27 / kmd
Nitrogen, Total	0.43	mg/L		0.04	0.01	A4500 N-C	07/17/18 15:48 / kmd
Phosphorus, Orthophosphate as P	0.016	mg/L	H	0.001	0.001	E365.1	07/13/18 15:47 / cmm
Phosphorus, Total as P	0.014	mg/L		0.003	0.0004	E365.1	07/25/18 15:50 / kmd

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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-005
Client Sample ID: COMBITR03 Florence Dup

Report Date: 07/30/18
Collection Date: 07/10/18 14:45
Date Received: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:26 / kmd
Nitrogen, Nitrate+Nitrite as N	0.05	mg/L		0.01	0.009	E353.2	07/16/18 10:31 / kmd
Nitrogen, Total	0.14	mg/L		0.04	0.01	A4500 N-C	07/17/18 15:50 / kmd
Phosphorus, Orthophosphate as P	0.016	mg/L	H	0.001	0.001	E365.1	07/13/18 15:50 / cmm
Phosphorus, Total as P	0.016	mg/L		0.003	0.0004	E365.1	07/25/18 15:51 / kmd

Report Definitions:
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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association
Project: Bitterroot River Mainstem
Lab ID: H18070248-006
Client Sample ID: COMBITR03 Florence Blank

Report Date: 07/30/18
Collection Date: 07/10/18 14:45
Date Received: 07/12/18
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
NUTRIENTS							
Nitrogen, Ammonia as N	ND	mg/L		0.05	0.02	E350.1	07/17/18 13:30 / kmd
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01	0.009	E353.2	07/16/18 10:32 / kmd
Nitrogen, Total	ND	mg/L		0.04	0.01	A4500 N-C	07/17/18 15:51 / kmd
Phosphorus, Orthophosphate as P	ND	mg/L	H	0.001	0.003	E365.1	07/24/18 15:01 / kmd
Phosphorus, Total as P	ND	mg/L		0.003	0.0006	E365.1	07/17/18 14:24 / cmm

Report RL - Analyte reporting limit.
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MDL - Method detection limit
QCL - Quality control limit.
H - Analysis performed past recommended holding time.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: A4500 N-C Analytical Run: FIA203-HE_180713B											
Lab ID: ICB		Initial Calibration Blank, Instrument Blank									07/13/18 13:25
Nitrogen, Total		-0.00224	mg/L	0.10		0	0				
Lab ID: CCV Continuing Calibration Verification Standard 07/13/18 14:29											
Nitrogen, Total		0.473	mg/L	0.10	95	90	110				
Method: A4500 N-C Batch: 42247											
Lab ID: LCS-42247		Laboratory Control Sample									07/13/18 13:29
Nitrogen, Total		8.11	mg/L	0.30	109	90	110			Run: FIA203-HE_180713B	
Lab ID: MB-42247		Method Blank									07/13/18 13:30
Nitrogen, Total		ND	mg/L	0.01						Run: FIA203-HE_180713B	
Lab ID: H18070235-012BMS		Sample Matrix Spike									07/13/18 14:31
Nitrogen, Total		1.34	mg/L	0.10	93	90	110			Run: FIA203-HE_180713B	
Lab ID: H18070235-012BMSD		Sample Matrix Spike Duplicate									07/13/18 14:33
Nitrogen, Total		1.38	mg/L	0.10	97	90	110	2.9	20	Run: FIA203-HE_180713B	
Method: A4500 N-C Analytical Run: FIA203-HE_180717B											
Lab ID: ICB		Initial Calibration Blank, Instrument Blank									07/17/18 15:40
Nitrogen, Total		0.00790	mg/L	0.10		0	0				
Lab ID: CCV Continuing Calibration Verification Standard 07/17/18 15:41											
Nitrogen, Total		0.501	mg/L	0.10	100	90	110				
Method: A4500 N-C Batch: 42300											
Lab ID: LFB		Laboratory Fortified Blank									07/17/18 15:43
Nitrogen, Total		1.05	mg/L	0.10	105	90	110			Run: FIA203-HE_180717B	
Lab ID: MB-42300		Method Blank									07/17/18 15:44
Nitrogen, Total		ND	mg/L	0.01						Run: FIA203-HE_180717B	
Lab ID: LCS-42300		Laboratory Control Sample									07/17/18 15:45
Nitrogen, Total		7.67	mg/L	0.30	103	90	110			Run: FIA203-HE_180717B	
Lab ID: H18070248-006BMS		Sample Matrix Spike									07/17/18 15:52
Nitrogen, Total		1.06	mg/L	0.10	103	90	110			Run: FIA203-HE_180717B	
Lab ID: H18070248-006BMSD		Sample Matrix Spike Duplicate									07/17/18 15:53
Nitrogen, Total		1.03	mg/L	0.10	100	90	110	3.1	20	Run: FIA203-HE_180717B	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E350.1								Analytical Run: FIA203-HE_180717A			
Lab ID: ICV		Initial Calibration Verification Standard									
Nitrogen, Ammonia as N		10.9	mg/L	0.50	106	90	110			07/17/18 12:35	
Lab ID: CCV								Continuing Calibration Verification Standard			
Nitrogen, Ammonia as N		0.506	mg/L	0.050	101	90	110			07/17/18 13:11	
Lab ID: CCV								Continuing Calibration Verification Standard			
Nitrogen, Ammonia as N		0.506	mg/L	0.050	101	90	110			07/17/18 13:27	
Method: E350.1								Batch: R136520			
Lab ID: MBLK		Method Blank									
Nitrogen, Ammonia as N		ND	mg/L	0.02						Run: FIA203-HE_180717A 07/17/18 12:33	
Lab ID: LFB								Laboratory Fortified Blank			
Nitrogen, Ammonia as N		1.02	mg/L	0.055	102	90	110			Run: FIA203-HE_180717A 07/17/18 12:37	
Lab ID: H18070235-014CMS								Sample Matrix Spike			
Nitrogen, Ammonia as N		0.872	mg/L	0.055	87	80	120			Run: FIA203-HE_180717A 07/17/18 13:18	
Lab ID: H18070235-014CMSD								Sample Matrix Spike Duplicate			
Nitrogen, Ammonia as N		0.867	mg/L	0.055	87	80	120	0.6	10	Run: FIA203-HE_180717A 07/17/18 13:19	
Lab ID: H18070250-003FMS								Sample Matrix Spike			
Nitrogen, Ammonia as N		0.871	mg/L	0.055	87	80	120			Run: FIA203-HE_180717A 07/17/18 13:35	
Lab ID: H18070250-003FMSD								Sample Matrix Spike Duplicate			
Nitrogen, Ammonia as N		0.872	mg/L	0.055	87	80	120	0.2	10	Run: FIA203-HE_180717A 07/17/18 13:36	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E353.2 Analytical Run: FIA203-HE_180712B											
Lab ID: ICV		Initial Calibration Verification Standard									07/12/18 12:11
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.010	101	90	110				
Method: E353.2 Batch: R136394											
Lab ID: MBLK		Method Blank									07/12/18 12:12
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.009							
Lab ID: LFB		Laboratory Fortified Blank									07/12/18 12:14
Nitrogen, Nitrate+Nitrite as N		0.945	mg/L	0.011	95	90	110				
Lab ID: H18070248-001CMS		Sample Matrix Spike									07/12/18 12:18
Nitrogen, Nitrate+Nitrite as N		0.858	mg/L	0.010	86	90	110			S	
Lab ID: H18070248-001CMSD		Sample Matrix Spike Duplicate									07/12/18 12:20
Nitrogen, Nitrate+Nitrite as N		0.849	mg/L	0.010	85	90	110	1.0	10	S	
Method: E353.2 Analytical Run: FIA203-HE_180716A											
Lab ID: ICV		Initial Calibration Verification Standard									07/16/18 10:21
Nitrogen, Nitrate+Nitrite as N		1.04	mg/L	0.010	104	90	110				
Lab ID: CCV		Continuing Calibration Verification Standard									07/16/18 10:40
Nitrogen, Nitrate+Nitrite as N		0.478	mg/L	0.010	96	90	110				
Method: E353.2 Batch: R136482											
Lab ID: MBLK		Method Blank									07/16/18 10:23
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.009							
Lab ID: LFB		Laboratory Fortified Blank									07/16/18 10:24
Nitrogen, Nitrate+Nitrite as N		0.962	mg/L	0.011	96	90	110				
Lab ID: H18060810-003ADUP		Sample Duplicate									07/16/18 10:26
Nitrogen, Nitrate+Nitrite as N		8.57	mg/L	0.10				0.5	10		
Lab ID: H18070248-004CMS		Sample Matrix Spike									07/16/18 10:29
Nitrogen, Nitrate+Nitrite as N		0.957	mg/L	0.011	96	90	110				
Lab ID: H18070248-004CMSD		Sample Matrix Spike Duplicate									07/16/18 10:30
Nitrogen, Nitrate+Nitrite as N		0.932	mg/L	0.011	93	90	110	2.7	10		
Lab ID: H18070272-010DMS		Sample Matrix Spike									07/16/18 10:47
Nitrogen, Nitrate+Nitrite as N		7.61	mg/L	0.055	95	90	110				
Lab ID: H18070272-010DMSD		Sample Matrix Spike Duplicate									07/16/18 10:48
Nitrogen, Nitrate+Nitrite as N		7.48	mg/L	0.055	93	90	110	1.7	10		

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E365.1								Analytical Run: FIA202-HE_180712B			
Lab ID: ICV		Initial Calibration Verification Standard									
Phosphorus, Orthophosphate as P		0.251	mg/L	0.0050	100	90	110			07/12/18 12:25	
Lab ID: CCV		Continuing Calibration Verification Standard									
Phosphorus, Orthophosphate as P		0.0934	mg/L	0.0050	93	90	110			07/12/18 12:44	
Method: E365.1								Batch: R136399			
Lab ID: MBLK		Method Blank									
Phosphorus, Orthophosphate as P		ND	mg/L	0.001						Run: FIA202-HE_180712B 07/12/18 12:26	
Lab ID: LFB		Laboratory Fortified Blank									
Phosphorus, Orthophosphate as P		0.215	mg/L	0.0050	107	90	110			Run: FIA202-HE_180712B 07/12/18 12:28	
Lab ID: H18070235-011DMS		Sample Matrix Spike									
Phosphorus, Orthophosphate as P		0.257	mg/L	0.0050	103	90	110			Run: FIA202-HE_180712B 07/12/18 12:46	
Lab ID: H18070235-011DMSD		Sample Matrix Spike Duplicate									
Phosphorus, Orthophosphate as P		0.261	mg/L	0.0050	105	90	110	1.5	20	Run: FIA202-HE_180712B 07/12/18 12:47	
Lab ID: H18070250-003EMS		Sample Matrix Spike									
Phosphorus, Orthophosphate as P		0.209	mg/L	0.0050	100	90	110			Run: FIA202-HE_180712B 07/12/18 13:00	
Lab ID: H18070250-003EMSD		Sample Matrix Spike Duplicate									
Phosphorus, Orthophosphate as P		0.214	mg/L	0.0050	103	90	110	2.3	20	Run: FIA202-HE_180712B 07/12/18 13:01	
Method: E365.1								Analytical Run: FIA202-HE_180713B			
Lab ID: ICV		Initial Calibration Verification Standard									
Phosphorus, Orthophosphate as P		0.242	mg/L	0.0050	97	90	110			07/13/18 15:42	
Lab ID: CCV		Continuing Calibration Verification Standard									
Phosphorus, Orthophosphate as P		0.0976	mg/L	0.0050	98	90	110			07/13/18 15:45	
Method: E365.1								Batch: R136434			
Lab ID: MBLK		Method Blank									
Phosphorus, Orthophosphate as P		ND	mg/L	0.001						Run: FIA202-HE_180713B 07/13/18 15:43	
Lab ID: LFB		Laboratory Fortified Blank									
Phosphorus, Orthophosphate as P		0.202	mg/L	0.0050	101	90	110			Run: FIA202-HE_180713B 07/13/18 15:44	
Lab ID: H18070248-004DMS		Sample Matrix Spike									
Phosphorus, Orthophosphate as P		0.202	mg/L	0.0050	93	90	110			Run: FIA202-HE_180713B 07/13/18 15:48	
Lab ID: H18070248-004DMSD		Sample Matrix Spike Duplicate									
Phosphorus, Orthophosphate as P		0.206	mg/L	0.0050	95	90	110	1.7	20	Run: FIA202-HE_180713B 07/13/18 15:49	

Qualifiers:

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QA/QC Summary Report

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Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E365.1								Analytical Run: FIA202-HE_180717B		
Lab ID: ICV	Initial Calibration Verification Standard									
Phosphorus, Total as P		0.268	mg/L	0.010	107	90	110			07/17/18 14:01
Lab ID: ICB	Initial Calibration Blank, Instrument Blank									
Phosphorus, Total as P		-0.000370	mg/L	0.010		0	0			07/17/18 14:03
Lab ID: CCV	Continuing Calibration Verification Standard									
Phosphorus, Total as P		0.0957	mg/L	0.010	96	90	110			07/17/18 14:22
Method: E365.1								Batch: 42298		
Lab ID: LCS-42298	Laboratory Control Sample									
Phosphorus, Total as P		0.406	mg/L	0.010	101	90	110			Run: FIA202-HE_180717B 07/17/18 14:04
Lab ID: MB-42298	Method Blank									
Phosphorus, Total as P		0.003	mg/L	0.0006						Run: FIA202-HE_180717B 07/17/18 14:05
Lab ID: H18070257-001BMS	Sample Matrix Spike									
Phosphorus, Total as P		0.210	mg/L	0.010	100	90	110			Run: FIA202-HE_180717B 07/17/18 14:30
Lab ID: H18070257-001BMSD	Sample Matrix Spike Duplicate									
Phosphorus, Total as P		0.215	mg/L	0.010	103	90	110	2.4	20	Run: FIA202-HE_180717B 07/17/18 14:31

Qualifiers:

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ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E365.1								Analytical Run: FIA202-HE_180724B		
Lab ID: ICV		Initial Calibration Verification Standard								07/24/18 14:47
Phosphorus, Orthophosphate as P		0.250	mg/L	0.0050	100	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								07/24/18 14:50
Phosphorus, Orthophosphate as P		0.106	mg/L	0.0050	106	90	110			
Method: E365.1								Batch: R136766		
Lab ID: MBLK		Method Blank								07/24/18 14:46
Phosphorus, Orthophosphate as P		ND	mg/L	0.003						
Lab ID: LFB		Laboratory Fortified Blank								07/24/18 14:52
Phosphorus, Orthophosphate as P		0.210	mg/L	0.0050	105	90	110			
Lab ID: H18070248-001DMS		Sample Matrix Spike								07/24/18 14:54
Phosphorus, Orthophosphate as P		0.231	mg/L	0.0050	109	90	110			
Lab ID: H18070248-001DMSD		Sample Matrix Spike Duplicate								07/24/18 14:55
Phosphorus, Orthophosphate as P		0.217	mg/L	0.0050	102	90	110	6.1	20	
Lab ID: H18070248-001DDUP		Sample Duplicate								07/24/18 15:05
Phosphorus, Orthophosphate as P		0.0137	mg/L	0.0050				0.3	20	
Lab ID: H18070248-002DDUP		Sample Duplicate								07/24/18 15:06
Phosphorus, Orthophosphate as P		0.0152	mg/L	0.0050				6.2	20	
Lab ID: H18070248-003DDUP		Sample Duplicate								07/24/18 15:07
Phosphorus, Orthophosphate as P		0.0172	mg/L	0.0050				0.5	20	
Lab ID: H18070248-004DDUP		Sample Duplicate								07/24/18 15:08
Phosphorus, Orthophosphate as P		0.0124	mg/L	0.0050				0.3	20	
Lab ID: H18070248-005DDUP		Sample Duplicate								07/24/18 15:09
Phosphorus, Orthophosphate as P		0.0124	mg/L	0.0050				2.9	20	
Lab ID: H18070248-006DDUP		Sample Duplicate								07/24/18 15:10
Phosphorus, Orthophosphate as P		ND	mg/L	0.0050					20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Bitterroot River Protection Association

Report Date: 07/27/18

Project: Bitterroot River Mainstem

Work Order: H18070248

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E365.1								Analytical Run: FIA202-HE_180725B			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank								07/25/18 15:36	
Phosphorus, Total as P		-0.000510	mg/L	0.010		0	0				
Lab ID: ICV		Initial Calibration Verification Standard								07/25/18 15:37	
Phosphorus, Total as P		0.256	mg/L	0.010	102	90	110				
Lab ID: CCV		Continuing Calibration Verification Standard								07/25/18 15:38	
Phosphorus, Total as P		0.0970	mg/L	0.010	97	90	110				
Method: E365.1								Batch: 42416			
Lab ID: MB-42416		Method Blank								07/25/18 15:39	
Phosphorus, Total as P		0.0007	mg/L	0.0004							
Lab ID: LCS-42416		Laboratory Control Sample								07/25/18 15:42	
Phosphorus, Total as P		0.366	mg/L	0.010	91	90	110				
Lab ID: H18070417-002BMS		Sample Matrix Spike								07/25/18 15:55	
Phosphorus, Total as P		0.202	mg/L	0.010	93	90	110				
Lab ID: H18070417-002BMSD		Sample Matrix Spike Duplicate								07/25/18 15:56	
Phosphorus, Total as P		0.194	mg/L	0.010	89	90	110	3.9	20	S	
Lab ID: H18070248-001ADUP		Sample Duplicate								07/25/18 15:58	
Phosphorus, Total as P		0.0111	mg/L	0.010					20		
Lab ID: H18070248-002ADUP		Sample Duplicate								07/25/18 15:59	
Phosphorus, Total as P		0.0130	mg/L	0.010				14	20		
Lab ID: H18070248-003ADUP		Sample Duplicate								07/25/18 16:00	
Phosphorus, Total as P		0.0124	mg/L	0.010				1.1	20		
Lab ID: H18070248-004ADUP		Sample Duplicate								07/25/18 16:01	
Phosphorus, Total as P		0.0133	mg/L	0.010				6.8	20		
Lab ID: H18070248-005ADUP		Sample Duplicate								07/25/18 16:02	
Phosphorus, Total as P		0.0150	mg/L	0.010				7.5	20		

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



Work Order Receipt Checklist

Bitterroot River Protection Association

H18070248

Login completed by: Jessica C. Smith

Date Received: 7/12/2018

Reviewed by: BL2000\wjohnson

Received by: TLL

Reviewed Date: 7/18/2018

Carrier name: Return-UPS Ground

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on all shipping container(s)/cooler(s)? Yes No Not Present
- Custody seals intact on all sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time?
(Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) Yes No
- Temp Blank received in all shipping container(s)/cooler(s)? Yes No Not Applicable
- Container/Temp Blank temperature: 4.4°C On Ice and Blue Ice
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH acceptable upon receipt? Yes No Not Applicable

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

One nutrients bottle and the orthophosphate bottle in sample set BITR-COBITTR06 are labeled as BITR-C05B11R06, and one nutrients bottle has an illegible label. Time on orthophosphate bottle in sample set BITR-C05BITTR03 is 12:05 -Time on COC is 12:00. Time on bottles in sample set COMBITR04 is 1:30 -Time on COC is 1:00. Time on bottles in sample set COMBITR03 is 3:00 -Time on COC is 2:45. Eight extra bottles were received for sample set COMBITR03, where one bottle has no date or time. Orthophosphate samples were received within the recommended holding time of 48 hrs however, they were received frozen with insufficient time to set up analysis within that recommended hold time. Per Michael Howell we are to create three sample sets from the Florence site. They are to be labeled Florence, Florence Dup and Florence Blank per M. Howell. wj 7/13/18



Chain of Custody & Analytical Request Return

www.energylab.com

Trust our People. Trust our Data.

Account Information (Billing Information)

Company/Name Bitterroot River Protection Assn.
 Contact Michael Howell
 Phone 406-239-4838
 Mailing Address P.O. Box 8
Stevensville MT 59870
 City, State, Zip
 Email bitterrootriverprotection@gmail.com
 Receive Invoice Hard Copy Email Receive Report Hard Copy Email
 Purchase Order # H1630 Quote 1630 Bottle Order # 27726

Report Information (if different than Account Information)

Company/Name
 Contact
 Phone
 Mailing Address
 City, State, Zip
 Email
 Receive Report Hard Copy Email
 Special Report Formats: LEVEL IV NELAC EDD/EDT (contact laboratory) Other

Project Information

Project Name, PWSID, Permit, etc. Bitterroot River Mainstem
 Sampler Name Michael Howell Sampler Phone 406-239-4838
 Sample Origin State MT EPA/State Compliance Yes No
 MINING CLIENTS, please indicate sample type:
 Byproduct 11 (e2 material) Unprocessed ore (NOT ground or refined)*

- Matrix Codes**
- A - Air
 - W - Water
 - S - Solids
 - V - Vegetation
 - B - Bioassay
 - O - Other
 - DW - Drinking Water

Analysis Requested

All turnaround times are standard unless marked as RUSH.
 Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

See Attached

EL LAB ID
 Laboratory Use Only
HIS070248

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested			
	Date	Time						
1 <u>BTR-COBEETR 06</u> <u>USGS gauge</u>	<u>7/10/16</u>	<u>10:03</u>	<u>4</u>	<u>W</u>				
2 <u>BTR-CO5BITR 03</u> <u>Minist</u>	<u>7/10/16</u>	<u>12:00</u>	<u>4</u>	<u>W</u>				
3 <u>COMBETR 04</u> <u>VETERANS</u>	<u>7/10/16</u>	<u>1:00</u>	<u>4</u>	<u>W</u>				
4 <u>COMBETR 03</u> <u>Florence</u>	<u>7/10/16</u>	<u>2:45</u>	<u>12</u>	<u>W</u>				
5								
6								
7								
8								
9								
10								

Custody MUST be signed by (print) Michael Howell Date/Time 7/11/16 Signature Michael Howell
 Relinquished by (print) Michelle Howell Date/Time 7/11/16 Signature Michelle Howell

Shipped By URS Cooler (ID's) 513 Custody Seals N B A C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KK KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.



Visit our People, Post our Data
www.nira.com

Phone: 87 628.228.0000 • Fax: 87 628.228.0015 • Canada: 87 628.628.7175 • Mexico: 87 627.672.8711

BOTTLE ORDER 27726



SHIPPED TO: Bitterroot College

Contact: Michael Howell

103 S 9th St

Hamilton MT 59840

Phone: (406) 239-4838

Project: 2018 Monitoring Parameters

Order Created by: Wanda Johnson

Shipped From: Helena, MT

Ship Date: 7/6/2018

VIA: Ground

Quote Used: 1630

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Semp
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Nutrient Suite (6 Sets)

250 mL Plastic	1	E365.1	Phosphorus, Total		<input type="checkbox"/> H2SO4		1
250 mL Plastic	1	A4500 N-C	Nitrogen, Total Persulfate				1
250 mL Plastic	1	E353.2	Nitrogen, Nitrate + Nitrite, Dissolved		<input type="checkbox"/> H2SO4		1
120 mL Plastic	1	E350.1	Nitrogen, Ammonia				1
120 mL Plastic	1	E368.1	Phosphorus, Orthophosphate as P	48.00 hrs		48 hour hold time. Requires filtering Filter Sample	1

Comments

Pricing reflects contracted DEQ Volunteer Monitoring. Shipping is \$12.00 per cooler for ground, \$40 for Second Day Air, and \$70 for overnight for coolers up to 70 lbs.

Sample kits (sample containers and preservative) are provided at no additional cost and will include ground shipping to sampling location, if applicable.

EnergySource, a secure online data portal, is available 24/7 to access analytical reports and data sets and available to all clients at no extra charge.

HNO3 - Nitric Acid H2SO4 - Sulfuric Acid NaOH - Sodium Hydroxide **We strongly suggest that the samples are shipped the same day as they are collected.**
 ZnAc - Zinc Acetate HCl - Hydrochloric Acid H3PO4 - Phosphoric Acid

Material Safety Data Sheets(MSDS) Available @ EnergyLab.com -> Services -> MSDS Sheets

Contracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.