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Work Plan

Cimarex Energy Company: Pintail 23 Federal Com #008H (Revision 3)
[30-015-38657|2RP-4006]

May 17, 2017

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

Prepared For:

Cimarex Energy Company

Ms. Christine Alderman
Cimarex Energy Company
600 N. Marienfeld Ste. 600
Midland, TX 79701

Subject: **Soil Assessment and Remediation Work Plan**
Cimarex Energy Co.
Pintail 23 Fed Com #008H |30-015-38657|2RP-4006|

Dear Ms. Alderman,

Cimarex Energy Company (Cimarex) has contracted Talon/LPE (Talon) to perform soil sampling and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

Site Information

The Cimarex Pintail 23 Fed Com #8H is located approximately twenty-five (25) miles south of Carlsbad, New Mexico. The legal location for this facility is Unit Letter M, Section 23, Township 25S South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude are 32.1087494 North and -104.2693253 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of the Reagan-Gypsum land complex with 0 to 3 percent slopes. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

According to the New Mexico Office of the State Engineer database, the ground water in this area is approximately 35-feet below ground surface (BGS). The referenced ground water data is presented in [Appendix II](#). Therefore the ranking for this site is a **20** based on the following:

Depth to ground water	<50'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Based upon the site ranking of **20**, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 100 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg.

Incident Description and Initial Remedial Actions

On November 20, 2016 a 2-inch threaded fitting on a water line failed due to corrosion. This resulted in a release of approximately 50bbls of produced water. Approximately 2bbls of produced water were recovered. The fluid from this release impacted the pasture east of the location measuring approximately 280-feet by 120-feet. On December 2, 2016, Talon mobilized personnel to the site to perform an initial site assessment and to collect soil samples within the impacted area. The soil samples were analyzed TPH, BTEX, total chlorides, and detailed salinity. The analytical results from the soil analysis are summarized in the table below.

Laboratory Results

See [Appendix IV](#) for complete report of laboratory results.

Sample ID	Depth ft	BTEX mg/kg	TPH mg/kg	Chloride mg/kg	pH	EC mmhos/cm	Sodium meq/L	Potassium meq/L	Calcium meq/L	Magnesium meq/L	SAR
S-1	0	<0.300	<10.0	11,627	7.2	100.5	928.49	16.33	167.26	17.86	96.51
S-1	1	--	--	10,635	7.2	73.6	13109.00	373.00	4224.00	165.00	53.86
S-1	2	--	--	3,899	7.2	39.3	64.01	0.57	34.05	23.50	11.94
S-1	3	--	--	1,063	7.5	7	16.51	0.30	47.13	4.76	3.24
S-1	4	--	--	2,410	7.4	18.3	50.34	0.41	131.15	11.09	5.97
S-1	5	--	--	1,489	7.6	12.47	44.45	0.36	74.68	5.72	7.14
S-1	6	--	--	921	7.7	4.67	8.55	0.30	39.94	3.34	1.84
S-1	7	--	--	128*	7.8	2.86	6.16	0.72	31.29	1.78	1.52
S-2	0	<0.300	<10.0	5,246	7	62.8	471.31	5.11	159.55	8.14	51.47
S-2	1	--	--	141	7.4	4.88	13.70	0.39	37.93	1.36	3.09
S-2	2	--	--	64*	--	--	--	--	--	--	--
S-3	0	<0.300	<10.00	4,537	7.1	47.7	391.09	3.18	178.71	5.32	40.77
S-3	1	--	--	212	7.6	5.16	14.34	0.42	38.89	1.51	3.19
S-3	2	--	--	128*	7.6	4.4	13.46	0.36	33.46	1.13	3.24
S-4	0	<0.300	<10.00	8,720	7.2	86.7	734.56	13.13	205.89	10.49	70.62
S-4	1	--	--	5,246	7.3	33.1	166.12	1.54	190.31	6.58	16.74
S-4	2	--	--	141	7.9	3.39	7.61	0.34	30.56	1.25	1.91
S-4	3	--	--	144*	7.9	2.7	4.50	0.32	29.66	1.38	1.14
S-5	0	<0.300	<10.00	5,884	7.4	40.4	348.43	3.50	176.69	5.33	36.52
S-5	1	--	--	921	7.8	6.23	30.01	0.73	32.44	1.73	7.26
S-5	2	--	--	141	7.8	2.86	6.08	0.37	30.09	0.86	1.55
S-5	3	--	--	80*	8	2.8	5.96	0.36	22.91	3.38	1.65

(--) Analyte Not Tested

(*) Laboratory Chloride Confirmation

Proposed Remedial Actions

- The impacted area in the vicinity of sample location S-1 will be excavated 4-feet BGS. A 20-mil reinforced liner padded with felt will be installed at the bottom of the excavation in order to encapsulate the remaining chloride impacts.
- The impacted areas in the vicinity of sample locations S-2, S-3, and S-5 will be excavated to a depth of 1-foot BGS.
- The impacted area in the vicinity of sample location S-4 will be excavated to a depth of 2-feet BGS.
- All of the excavated material will be hauled to an NMCOD approved solid waste disposal facility.
- The location will be downsized per BLM interim reclamation guidelines. The caliche generated during this process will be used to backfill the bottom of the excavation.
- The remaining vertical extent of the excavation will be backfilled with top soil, contoured to match the surrounding terrain and seeded with BLM #1 seed mixture.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE



Sheldon L. Hitchcock
Project Manager



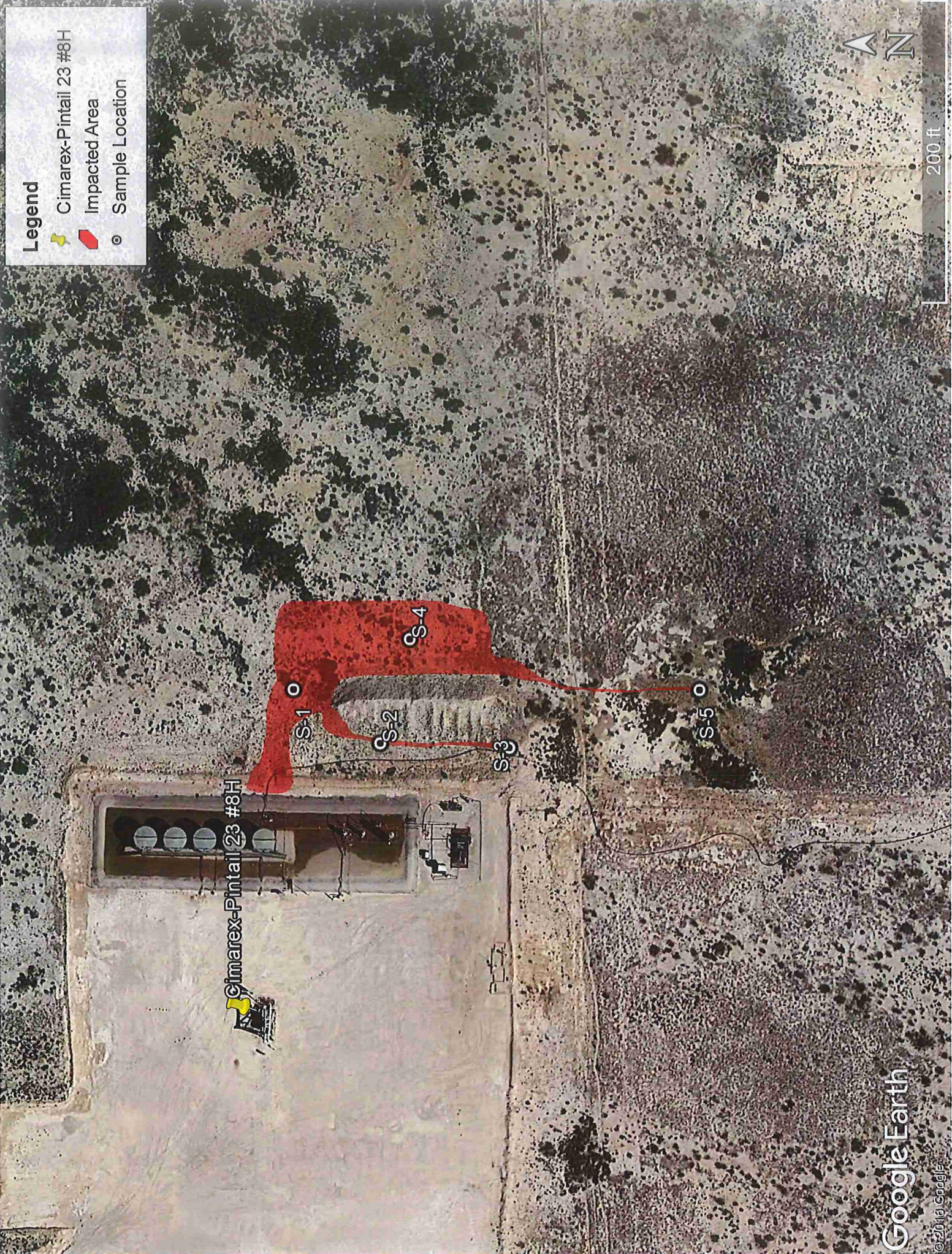
David J. Adkins
District Manager

Attachments

Appendix I Site Plan
Appendix II Groundwater Data
Appendix III Initial C-141
Appendix IV Laboratory Results

APPENDIX I

SITE PLAN



Legend

-  Cimarex-Pintail 23 #8H
-  Impacted Area
-  Sample Location

APPENDIX II

GROUNDWATER DATA



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03655 POD3	CUB	ED		1	4	4	22	25S	26E	568458	3553019	465			
C 02220	CUB	ED		3	1	2	26	25S	26E	569598	3552352*	862	35		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 2

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 568890

Northing (Y): 3552845

Radius: 1000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

APPENDIX III

INITIAL C-141

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

NOV 21 2016

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Release Notification and Corrective Action

DAB 1632841630		OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company Cimarex Energy		Contact Christine Alderman			
Address 600 N Marlenfeld Ste 600 Midland TX		Telephone No. 432-853-7059			
Facility Name Pintail 23 #8H		Facility Type production			
Surface Owner		Mineral Owner		API No. 30-015-38657	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	23	25S	26E	250	S	800	W	Eddy

Latitude 32.10874 Longitude -104.26932

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 50 bbls	Volume Recovered 2 bbls
Source of Release piping	Date and Hour of Occurrence 11/20/2016	Date and Hour of Discovery 11/20/2016
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker/Heather Patterson/Mike Bratcher	
By Whom? Christine Alderman	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 21 2016

RECEIVED

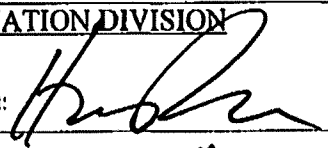
If a Watercourse was Impacted, Describe Fully.

Describe Cause of Problem and Remedial Action Taken.
A 2" threaded fitting corroded and failed.

Describe Area Affected and Cleanup Action Taken.

The affected area was pasture area and was approximately 2' wide by 25' long. We will delineate and submit a work plan to remediate.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Christine Alderman		OIL CONSERVATION DIVISION	
Printed Name: Christine Alderman		Approved by Environmental Specialist: 	
Title: ESH Supervisor		Approval Date: 11/22/16	Expiration Date: N/A
E-mail Address: calderman@cimarex.com		Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: 11/21/2016 Phone: 432-853-7059			

* Attach Additional Sheets If Necessary

2RP-4006

APPENDIX IV

LABORATORY RESULTS



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472168
Customer Sample ID: S-1 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.8	(5.8)	-	Mod. Alkaline							
Conductivity	6,450	(-)	umho/cm	V. High				CL*	Fertilizer Recommended		
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	13	(50)	ppm								50 lbs P2O5/acre
Potassium	396	(125)	ppm								0 lbs K2O/acre
Calcium	17,808	(180)	ppm								0 lbs Ca/acre
Magnesium	200	(50)	ppm								0 lbs Mg/acre
Sulfur	5,410	(13)	ppm								0 lbs S/acre
Sodium	9,748	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
pH				7.2							
Conductivity				100.50 mmhos/cm							
Sodium				21337 ppm				928.486 meq/L			
Potassium				638 ppm				16.328 meq/L			
Calcium				3352 ppm				167.258 meq/L			
Magnesium				217 ppm				17.861 meq/L			
SAR				96.51							
SSP				82.17							

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472169
Customer Sample ID: S-1 1

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.		
pH	7.6	(5.8)		Mod. Alkaline								
Conductivity	6,360	(-)	umho/cm	V. High							CL*	Fertilizer Recommended
Nitrate-N	0	(-)	ppm**									55 lbs N/acre
Phosphorus	14	(50)	ppm									50 lbs P2O5/acre
Potassium	300	(125)	ppm									0 lbs K20/acre
Calcium	17,185	(180)	ppm									0 lbs Ca/acre
Magnesium	190	(50)	ppm									0 lbs Mg/acre
Sulfur	1,648	(13)	ppm									0 lbs S/acre
Sodium	8,413	(-)	ppm									
Iron												
Zinc												
Manganese												
Copper												
Boron												
Limestone Requirement										0.00 tons 100ECCE/acre		
Detailed Salinity Test (Saturated Paste Extract)												
pH		7.2										
Conductivity		73.60 mmhos/cm										
Sodium		13109 ppm				570.431 meq/L						
Potassium		373 ppm				9.552 meq/L						
Calcium		4224 ppm				210.772 meq/L						
Magnesium		165 ppm				13.524 meq/L						
SAR		53.86										
SSP		70.92										

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

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Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

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Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472170
Customer Sample ID: S-1 2

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.		
pH	7.7	(5.8)	-	Mod. Alkaline								
Conductivity	4,710	(-)	umho/cm	V. High							CL*	Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre	
Phosphorus	12	(50)	ppm								50 lbs P2O5/acre	
Potassium	163	(125)	ppm								0 lbs K2O/acre	
Calcium	21,931	(180)	ppm								0 lbs Ca/acre	
Magnesium	325	(50)	ppm								0 lbs Mg/acre	
Sulfur	597	(13)	ppm								0 lbs S/acre	
Sodium	1,068	(-)	ppm									
Iron												
Zinc												
Manganese												
Copper												
Boron												
Limestone Requirement										0.00	tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)												
pH		7.2										
Conductivity		39.30 mmhos/cm										
Sodium		1472 ppm		64.049 meq/L								
Potassium		22 ppm		0.569 meq/L								
Calcium		682 ppm		34.053 meq/L								
Magnesium		286 ppm		23.496 meq/L								
SAR		11.94										
SSP		52.43										

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
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Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472171
Customer Sample ID: S-13

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.9	(5.8)	-	Mod. Alkaline							
Conductivity	2,010	(-)	urnho/cm	High							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	5	(50)	ppm								60 lbs P2O5/acre
Potassium	129	(125)	ppm								0 lbs K2O/acre
Calcium	36,367	(180)	ppm								0 lbs Ca/acre
Magnesium	225	(50)	ppm								0 lbs Mg/acre
Sulfur	758	(13)	ppm								0 lbs S/acre
Sodium	329	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)											
pH	7.5										
Conductivity	7.00 mmhos/cm										
Sodium	379 ppm 16.505 meq/L										
Potassium	12 ppm 0.303 meq/L										
Calcium	945 ppm 47.134 meq/L										
Magnesium	58 ppm 4.763 meq/L										
SAR	3.24										
SSP	24.02										

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

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Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472172
Customer Sample ID: S-1 4

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.9	(5.8)		Mod. Alkaline						
Conductivity	3,300	(-)	umho/cm	V. High						CL*
Nitrate-N	0	(-)	ppm**							Fertilizer Recommended
Phosphorus	8	(50)	ppm							55 lbs N/acre
Potassium	65	(125)	ppm							55 lbs P2O5/acre
Calcium	31,150	(180)	ppm							55 lbs K2O/acre
Magnesium	187	(50)	ppm							0 lbs Ca/acre
Sulfur	5,027	(13)	ppm							0 lbs Mg/acre
Sodium	654	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.4
Conductivity	18.30 mmhos/cm
Sodium	1157 ppm
Potassium	16 ppm
Calcium	2628 ppm
Magnesium	135 ppm
SAR	5.97
SSP	26.08

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.
Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX: County
Laboratory Number: 472173
Customer Sample ID: S-1 5

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
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College Station, TX 77843-2478
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979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.1	(5.8)		Mod. Alkaline							
Conductivity	2,230	(-)	umho/cm	High				CL*			Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	7	(50)	ppm								55 lbs P2O5/acre
Potassium	37	(125)	ppm								80 lbs K2O/acre
Calcium	28,799	(180)	ppm								0 lbs Ca/acre
Magnesium	135	(50)	ppm								0 lbs Mg/acre
Sulfur	5,242	(13)	ppm								0 lbs S/acre
Sodium	770	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.6
Conductivity	12.47 mmhos/cm
Sodium	1021 ppm
Potassium	14 ppm
Calcium	1437 ppm
Magnesium	70 ppm
SAR	7.14
SSP	36.37

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472174
Customer Sample ID: S-1 6

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.2	(5.8)	-	Mod. Alkaline							
Conductivity	1,580	(-)	umho/cm	High							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	6	(50)	ppm								60 lbs P2O5/acre
Potassium	30	(125)	ppm								90 lbs K2O/acre
Calcium	30,974	(180)	ppm								0 lbs Ca/acre
Magnesium	128	(50)	ppm								0 lbs Mg/acre
Sulfur	5,234	(13)	ppm								0 lbs S/acre
Sodium	153	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
	pH										7.7
	Conductivity										4.67 mmhos/cm
	Sodium										197 ppm 8.554 meq/L
	Potassium										12 ppm 0.298 meq/L
	Calcium										800 ppm 39.935 meq/L
	Magnesium										41 ppm 3.340 meq/L
	SAR										1.84
	SSP										16.41

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.
Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472175
Customer Sample ID: S-17

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.1	(5.8)	-	Mod. Alkaline							
Conductivity	1,430	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended	
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	4	(50)	ppm								60 lbs P2O5/acre
Potassium	46	(125)	ppm								75 lbs K2O/acre
Calcium	32,453	(180)	ppm								0 lbs Ca/acre
Magnesium	112	(50)	ppm								0 lbs Mg/acre
Sulfur	5,053	(13)	ppm								0 lbs S/acre
Sodium	82	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
pH				7.8							
Conductivity				2.86 mmhos/cm							
Sodium				142 ppm				6.164 meq/L			
Potassium				11 ppm				0.272 meq/L			
Calcium				627 ppm				31.292 meq/L			
Magnesium				22 ppm				1.783 meq/L			
SAR				1.52							
SSP				15.60							

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472176
Customer Sample ID: S-2 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess	
pH	7.5	(5.8)	-	Slightly Alkaline							
Conductivity	6,190	(-)	umho/cm	V. High							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	16	(50)	ppm								45 lbs P2O5/acre
Potassium	288	(125)	ppm								0 lbs K2O/acre
Calcium	18,367	(180)	ppm								0 lbs Ca/acre
Magnesium	139	(50)	ppm								0 lbs Mg/acre
Sulfur	6,112	(13)	ppm								0 lbs S/acre
Sodium	6,440	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.0
Conductivity	62.80 mmhos/cm
Sodium	10831 ppm
Potassium	200 ppm
Calcium	3197 ppm
Magnesium	99 ppm
SAR	51.47
SSP	73.17

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472177
Customer Sample ID: S-2 1

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.9	(5.8)		Mod. Alkaline							
Conductivity	2,050	(-)	umho/cm	High					CL*		Fertilizer Recommended
Nitrate-N	2	(-)	ppm**								55 lbs N/acre
Phosphorus	11	(50)	ppm								50 lbs P2O5/acre
Potassium	228	(125)	ppm								0 lbs K2O/acre
Calcium	16,092	(180)	ppm								0 lbs Ca/acre
Magnesium	125	(50)	ppm								0 lbs Mg/acre
Sulfur	2,026	(13)	ppm								0 lbs S/acre
Sodium	375	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)											
pH	7.4										
Conductivity	4.88		mmhos/cm								
Sodium	315		ppm								13.697 meq/L
Potassium	15		ppm								0.389 meq/L
Calcium	760		ppm								37.934 meq/L
Magnesium	17		ppm								1.362 meq/L
SAR	3.09										
SSP	25.66										

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.
Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472178
Customer Sample ID: S-3 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.9	(5.8)		Mod. Alkaline							
Conductivity	5,270	(-)	umho/cm	V. High							Fertilizer Recommended
Nitrate-N	1	(-)	ppm**								55 lbs N/acre
Phosphorus	22	(50)	ppm								35 lbs P2O5/acre
Potassium	230	(125)	ppm								0 lbs K2O/acre
Calcium	18,063	(180)	ppm								0 lbs Ca/acre
Magnesium	134	(50)	ppm								0 lbs Mg/acre
Sulfur	6,000	(13)	ppm								0 lbs S/acre
Sodium	4,211	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.1
Conductivity	47.70 mmhos/cm
Sodium	8987 ppm
Potassium	124 ppm
Calcium	3581 ppm
Magnesium	65 ppm
SAR	40.77
SSP	67.63

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talón/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472179
Customer Sample ID: S-3 1

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.8	(5.8)		Mod. Alkaline						
Conductivity	2,140	(-)	umho/cm	High						Fertilizer Recommended
Nitrate-N	2	(-)	ppm**							55 lbs N/acre
Phosphorus	12	(50)	ppm							50 lbs P2O5/acre
Potassium	246	(125)	ppm							0 lbs K2O/acre
Calcium	15,240	(180)	ppm							0 lbs Ca/acre
Magnesium	148	(50)	ppm							0 lbs Mg/acre
Sulfur	2,336	(13)	ppm							0 lbs S/acre
Sodium	422	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.6	
Conductivity	5.16 mmhos/cm	
Sodium	329 ppm	14.335 meq/L
Potassium	16 ppm	0.418 meq/L
Calcium	779 ppm	38.890 meq/L
Magnesium	18 ppm	1.512 meq/L
SAR	3.19	
SSP	25.99	

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.
Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472180
Customer Sample ID: S-3 2

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.1	(5.8)		Mod. Alkaline							
Conductivity	1,520	(-)	umho/cm	Moderate							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	7	(50)	ppm								55 lbs P2O5/acre
Potassium	45	(125)	ppm								75 lbs K2O/acre
Calcium	20,117	(180)	ppm								0 lbs Ca/acre
Magnesium	58	(50)	ppm								0 lbs Mg/acre
Sulfur	6,142	(13)	ppm								0 lbs S/acre
Sodium	171	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)											
	pH										7.6
	Conductivity										4.40 mmhos/cm
	Sodium										309 ppm 13.459 meq/L
	Potassium										14 ppm 0.362 meq/L
	Calcium										671 ppm 33.459 meq/L
	Magnesium										14 ppm 1.129 meq/L
	SAR										3.24
	SSP										27.80

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472181
Customer Sample ID: S-4 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.7	(5.8)	-	Mod. Alkaline						
Conductivity	6,250	(-)	umho/cm	V. High						
Nitrate-N	0	(-)	ppm**							Fertilizer Recommended
Phosphorus	29	(50)	ppm							55 lbs N/acre
Potassium	453	(125)	ppm							25 lbs P2O5/acre
Calcium	10,009	(180)	ppm							0 lbs K2O/acre
Magnesium	195	(50)	ppm							0 lbs Ca/acre
Sulfur	893	(13)	ppm							0 lbs Mg/acre
Sodium	8,505	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.2
Conductivity	86.70 mmhos/cm
Sodium	16880 ppm
Potassium	513 ppm
Calcium	4126 ppm
Magnesium	128 ppm
SAR	70.62
SSP	76.19

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472182
Customer Sample ID: S-4 1

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.8	(5.8)	-	Mod. Alkaline							
Conductivity	4,600	(-)	umho/cm	V. High							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	13	(50)	ppm								50 lbs P2O5/acre
Potassium	239	(125)	ppm								0 lbs K2O/acre
Calcium	16,225	(180)	ppm								0 lbs Ca/acre
Magnesium	169	(50)	ppm								0 lbs Mg/acre
Sulfur	472	(13)	ppm								0 lbs S/acre
Sodium	2,809	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)			
pH	7.3		
Conductivity	33.10 mmhos/cm		
Sodium	3817 ppm	166.117 meq/L	
Potassium	60 ppm	1.541 meq/L	
Calcium	3814 ppm	190.312 meq/L	
Magnesium	80 ppm	6.576 meq/L	
SAR	16.74		
SSP	45.57		

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
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Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472183
Customer Sample ID: S-4 2

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	8.1	(5.8)	-	Mod. Alkaline						
Conductivity	1,560	(-)	umho/cm	High						
Nitrate-N	0	(-)	ppm**							Fertilizer Recommended
Phosphorus	5	(50)	ppm							55 lbs N/acre
Potassium	51	(125)	ppm							60 lbs P2O5/acre
Calcium	27,898	(180)	ppm							70 lbs K2O/acre
Magnesium	86	(50)	ppm							0 lbs Ca/acre
Sulfur	5,899	(13)	ppm							0 lbs Mg/acre
Sodium	181	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		7.9				
				Conductivity		3.39 mmhos/cm				
				Sodium		175 ppm		7.612 meq/L		
				Potassium		13 ppm		0.341 meq/L		
				Calcium		612 ppm		30.560 meq/L		
				Magnesium		15 ppm		1.245 meq/L		
				SAR		1.91				
				SSP		19.15				

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.
Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
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Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472184
Customer Sample ID: S-4 3

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
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979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.1	(5.8)		Mod. Alkaline							
Conductivity	1,550	(-)	umho/cm	High							Fertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	6	(50)	ppm								60 lbs P2O5/acre
Potassium	44	(125)	ppm								75 lbs K2O/acre
Calcium	28,274	(180)	ppm								0 lbs Ca/acre
Magnesium	93	(50)	ppm								0 lbs Mg/acre
Sulfur	5,819	(13)	ppm								0 lbs S/acre
Sodium	50	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
	pH										7.9
	Conductivity										2.70 mmhos/cm
	Sodium										103 ppm 4.499 meq/L
	Potassium										12 ppm 0.319 meq/L
	Calcium										594 ppm 29.657 meq/L
	Magnesium										17 ppm 1.376 meq/L
	SAR										1.14
	SSP										12.55

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472185
Customer Sample ID: S-5 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.9	(5.8)					Mod. Alkaline				
Conductivity	4,530	(-)	umho/cm	V. High					CL*		Fertilizer Recommended
Nitrate-N	1	(-)	ppm**								55 lbs N/acre
Phosphorus	27	(50)	ppm								30 lbs P2O5/acre
Potassium	295	(125)	ppm								0 lbs K2O/acre
Calcium	7,534	(180)	ppm								0 lbs Ca/acre
Magnesium	130	(50)	ppm								0 lbs Mg/acre
Sulfur	1,234	(13)	ppm								0 lbs S/acre
Sodium	3,897	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)											
	pH										7.4
	Conductivity										46.40 mmhos/cm
	Sodium										8007 ppm 348.427 meq/L
	Potassium										137 ppm 3.502 meq/L
	Calcium										3541 ppm 176.694 meq/L
	Magnesium										65 ppm 5.327 meq/L
	SAR										36.52
	SSP										65.25

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472186
Customer Sample ID: S-5 1

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.3	(5.8)	-	Mod. Alkaline							
Conductivity	1,780	(-)	umho/cm	High				CL*			Fertilizer Recommended
Nitrate-N	1	(-)	ppm**								55 lbs N/acre
Phosphorus	9	(50)	ppm								55 lbs P2O5/acre
Potassium	59	(125)	ppm								60 lbs K2O/acre
Calcium	32,480	(180)	ppm								0 lbs Ca/acre
Magnesium	134	(50)	ppm								0 lbs Mg/acre
Sulfur	5,519	(13)	ppm								0 lbs S/acre
Sodium	524	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)											
	pH										7.8
	Conductivity										6.23 mmhos/cm
	Sodium										690 ppm 30.005 meq/L
	Potassium										28 ppm 0.726 meq/L
	Calcium										650 ppm 32.438 meq/L
	Magnesium										21 ppm 1.730 meq/L
	SAR										7.26
	SSP										46.23

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave.
Artesia, NM 88210

Outside TX County
Laboratory Number: 472187
Customer Sample ID: S-5 2

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016

Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess
pH	8.2	(5.8)	-	Mod. Alkaline						
Conductivity	1,420	(-)	umho/cm	Moderate						Fertilizer Recommended
Nitrate-N	1	(-)	ppm**							55 lbs N/acre
Phosphorus	4	(50)	ppm							60 lbs P2O5/acre
Potassium	10	(125)	ppm							105 lbs K2O/acre
Calcium	18,208	(180)	ppm							0 lbs Ca/acre
Magnesium	68	(50)	ppm							0 lbs Mg/acre
Sulfur	7,037	(13)	ppm							0 lbs S/acre
Sodium	61	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre

Detailed Salinity Test (Saturated Paste Extract)

pH	7.8	
Conductivity	2.86 mmhos/cm	
Sodium	140 ppm	6.084 meq/L
Potassium	14 ppm	0.365 meq/L
Calcium	603 ppm	30.090 meq/L
Magnesium	10 ppm	0.856 meq/L
SAR	1.55	
SSP	16.27	

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Sheldon Hitchcock
Talon/LPE (Pintail 23-8)
408 W Texas Ave
Artesia, NM 88210

Outside TX County
Laboratory Number: 472188
Customer Sample ID: S-5 3

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	8.3	(5.8)	-	Mod. Alkaline						
Conductivity	1,510	(-)	umho/cm	Moderate						CL*
Nitrate-N	1	(-)	ppm**							Fertilizer Recommended
Phosphorus	4	(50)	ppm							55 lbs N/acre
Potassium	15	(125)	ppm							60 lbs P2O5/acre
Calcium	16,303	(180)	ppm							105 lbs K2O/acre
Magnesium	324	(50)	ppm							0 lbs Ca/acre
Sulfur	6,730	(13)	ppm							0 lbs Mg/acre
Sodium	44	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
	pH									8.0
	Conductivity									2.80 mmhos/cm
	Sodium									137 ppm 5.964 meq/L
	Potassium									14 ppm 0.361 meq/L
	Calcium									459 ppm 22.906 meq/L
	Magnesium									41 ppm 3.378 meq/L
	SAR									1.65
	SSP									18.29

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

December 15, 2016

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: PINTAIL 23 FED #8

Enclosed are the results of analyses for samples received by the laboratory on 12/08/16 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	12/08/2016	Sampling Date:	12/02/2016
Reported:	12/15/2016	Sampling Type:	Soil
Project Name:	PINTAIL 23 FED #8	Sampling Condition:	Cool & Intact
Project Number:	701162.078.01	Sample Received By:	Jodi Henson
Project Location:	M-23-25S-26E		

Sample ID: S-1 0' (H602747-01)

BTX 8021B			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2		
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6		
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5		
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0		
Total BTX	<0.300	0.300	12/13/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 119 % 73.6-140

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17		
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506		

Surrogate: 1-Chlorooctane 75.6 % 35-147

Surrogate: 1-Chlorooctadecane 65.8 % 28-171

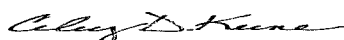
Sample ID: S-1 7' (H602747-02)

Chloride, SM4500Cl-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/13/2016	ND	400	100	400	3.92		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 12/08/2016
Reported: 12/15/2016
Project Name: PINTAIL 23 FED #8
Project Number: 701162.078.01
Project Location: M-23-25S-26E

Sampling Date: 12/02/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0' (H602747-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 119 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	

Surrogate: 1-Chlorooctane 67.3 % 35-147

Surrogate: 1-Chlorooctadecane 63.5 % 28-171

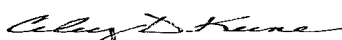
Sample ID: S-2 2' (H602747-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/13/2016	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 12/08/2016
Reported: 12/15/2016
Project Name: PINTAIL 23 FED #8
Project Number: 701162.078.01
Project Location: M-23-25S-26E

Sampling Date: 12/02/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 0' (H602747-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 118 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	

Surrogate: 1-Chlorooctane 73.0 % 35-147

Surrogate: 1-Chlorooctadecane 73.1 % 28-171

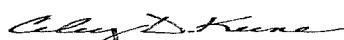
Sample ID: S-3 2' (H602747-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/13/2016	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 SHELDON HITCHCOCK
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

 Received: 12/08/2016
 Reported: 12/15/2016
 Project Name: PINTAIL 23 FED #8
 Project Number: 701162.078.01
 Project Location: M-23-25S-26E

 Sampling Date: 12/02/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-4 0' (H602747-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 119 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	

Surrogate: 1-Chlorooctane 68.8 % 35-147

Surrogate: 1-Chlorooctadecane 68.8 % 28-171

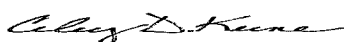
Sample ID: S-4 3' (H602747-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	12/13/2016	ND	400	100	400	3.92	

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 SHELDON HITCHCOCK
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	12/08/2016	Sampling Date:	12/02/2016
Reported:	12/15/2016	Sampling Type:	Soil
Project Name:	PINTAIL 23 FED #8	Sampling Condition:	Cool & Intact
Project Number:	701162.078.01	Sample Received By:	Jodi Henson
Project Location:	M-23-25S-26E		

Sample ID: S-5 0' (H602747-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	

Surrogate: 1-Chlorooctane 69.8 % 35-147

Surrogate: 1-Chlorooctadecane 65.4 % 28-171

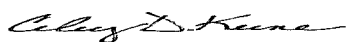
Sample ID: S-5 3' (H602747-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/13/2016	ND	400	100	400	3.92	

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

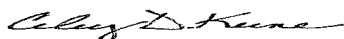
Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Talon/LPE										P.O. #:										ANALYSIS REQUEST																			
Project Manager: Sheldon Hitchcock										Company: Cimarex																													
Address: 408 W. Texas Ave.										Attn: Christine Aldeman																													
City: Artesia										State: NM Zip: 88210																													
Phone #: 575-746-8768										Fax #: 575-746-8905																													
Project #: 70162.078.01										Project Owner: Cimarex																													
Project Name: Pintail 23 Fed #8										State: Zip:																													
Project Location: M-23-2S-26E										Phone #:																													
Sample Name: Sheldon Hitchcock										Fax #:																													
FOR LAB USE ONLY										PRESERV										SAMPLING																			
Lab I.D.										Sample I.D.																													
H002147										(G)RAB OR (C)OMP.																													
										# CONTAINERS																													
										GROUNDWATER																													
										WASTEWATER																													
										SOIL																													
										OIL																													
										SLUDGE																													
										OTHER :																													
										ACID/BASE:																													
										ICE / COOL																													
										OTHER :																													
										DATE										TIME																			
1										5-10'										12/21/04 2:45										TPH									
2										5-17'										12/21/04 2:50										BTEX									
3										5-20'										12/21/04 3:00										Chlorides									
4										5-22'										12/21/04 3:05																			
5										5-30'										12/21/04 3:20																			
6										5-32'										12/21/04 3:35																			
7										5-40'										12/21/04 4:00																			
8										5-43'										12/21/04 4:10																			
9										5-50'										12/21/04 4:30																			
10										5-53'										12/21/04 3:30																			
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Relinquished By:										Received By:										Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:																			
Sheldon Hitchcock										Sheldon Hitchcock										Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:																			
Relinquished By:										Received By:										REMARKS:																			
Time:										Sample Condition										Checked By:																			
Delivered By: (Circle One)										Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>										Sheldon Hitchcock																			
Sampler - UPS - Bus - Other: #75 3.50c										Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>																													

1 of 1