Cameco Resources
Crow Butte Operation

86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169

(308) 665-2215
(308) 665-2341 – FAX

November 1, 2016

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Attn: Document Control Desk, Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: 2016 Annual Pond Inspection Report
Source Materials License SUA-1534
Docket Number 40-8943

Dear Director:

Enclosed please find a certified copy of the Crow Butte Mine 2016 Annual Pond Inspection Report. This report is required under License Condition 11.9 of Source Materials License SUA-1534 in accordance with the latest revision of the Evaporation Pond Inspection Program dated February 5, 1996. Mr. David Coe, an independent contractor and a registered Professional Engineer in the State of Nebraska, performed the pond inspection and the technical evaluation, and wrote the final report. Civil surveys were performed by Pine Ridge Land Surveys of Chadron, Nebraska.

If you have any questions, please feel free to contact me at (308) 665-2215 ext 114.

Sincerely,
CAMECO RESOURCES
CROW BUTTE OPERATION

Larry Teahon

Larry Teahon
SHEQ Manager

Attachments: As Stated

cc: NRC – Deputy Director
CBO – File

ec: CR – Electronic File
Cory Winters – NDEQ Field Office
Nancy Harris – NDEQ Program Coordinator

NMSS2D

CROW BUTTE RESOURCES, INC.

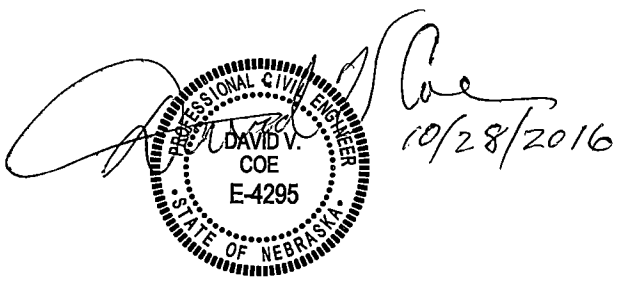
CROW BUTTE MINE

DAWES COUNTY, NEBRASKA

2016 POND INSPECTION REPORT

By: David V. Coe, PE
Nebraska Registration No. E - 4295

October 28, 2016



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1.0 GENERAL:

An annual inspection of the Crow Butte ISL Mine pond system is required by the Evaporation Pond Onsite Inspection Program dated December 1992 (Revised February 26, 1993, August 30, 1993 and February 5, 1996) and by reference under license condition number 11.9 of SUA-1534. The inspection program provides for systematic inspections and an annual technical evaluation and inspection report, which compares field inspection data with engineering design reports to assess structural stability and hydraulic and hydrologic capacities.

The 2016 annual report covers the time period of October 13, 2015 through October 07, 2016. During that period five evaporation ponds were in use, two R&D ponds (Cells 1 & 2) and three commercial ponds (Ponds 1, 3 and 4). Pond #4 had limited use during the past year.

The R&D pond design report was prepared by Klohn Leonoff Consulting Engineers in 1983 and construction of R&D cells 1 and 2 was completed in 1985. The R&D ponds have two horizontal to one vertical interior and exterior embankment slopes with a 34-mil interior hypalon liner placed on top of six inches of sand. The underdrain leak detection system piping is located beneath the pond liner and reports to two six-inch monitor stand pipes. The overall depth of the R&D ponds is 15 feet and the maximum operating level is 12 feet. This provides three feet of freeboard.

The commercial evaporation pond design report was prepared by Western Water Consultants, Inc. in 1988. Construction of ponds 3 and 4 was completed in 1990 and construction of pond 1 was completed in 1992. The exterior slopes of these ponds are 2.5 horizontal to 1 vertical. The interior slopes are 2:1. Ponds 3 and 4 have a 20-mil PVC bottom liner, an intermediate geonet and a 60-mil high-density polyethylene (HDPE) top liner. In pond 1, a 30-mil very low-density polyethylene (VLDPE) bottom liner was installed with an intermediate geonet and 60 mil HDPE top liner. Each pond has a leak detection system consisting of six separate perforated four-inch pipes, which report to leak detection standpipes located on the interior slopes.

The overall depth of Pond 1 is 17 feet from crest to pond bottom and the maximum operating level is 12 feet. The 12 feet provides five feet of freeboard. The overall depth of Ponds 3 and 4 is 17.5 feet with a maximum operating level of 12.5 feet, which equates to a five-foot freeboard.

2.0 REVIEW OF INSPECTION DATA:

The Evaporation Pond Onsite Inspection Program dated December 1992 as amended calls for systematic inspections on a daily, weekly, monthly and quarterly basis. Data from the inspection reports are shown on Charts 1 through 4 including pond depths and underdrain measurements. **Zero pond depths are shown on the charts as a result of frozen pond conditions. Recordings indicate the existing freeboard along with the pond depth at the time of inspections.**

Two groundwater monitor wells are installed in the uppermost aquifer (Brule) in the commercial pond area and one groundwater monitor well in the R&D pond area. The wells are sampled quarterly for indications of leaks in the ponds. The wells provide backup leak detection for the underdrain leak detection system. The analysis of the quarterly samples tracks alkalinity, chloride, sulfate, sodium and conductivity. The concentration of the above chemicals is compared to baseline data established in 1990 and 1991. A review of the quarterly analysis reports for 2016 indicates all parameters have not substantially deviated from the baseline parameters.

The existing sprinkler system was installed on the commercial evaporation ponds during 2006 & 2007. The sprinkler systems reduce the likelihood of leaks caused by abrasive action of the evaporation system. The sprinkler system function is to increase the rate of evaporation from the three commercial ponds. The sprinkler system in pond #4 is supplied from Pond #3 water. Pond #4 was not in use; therefore, there was no storage in this pond and no sprinklers were necessary. At the time of this inspection; Ponds #1 & #3 were the only ones with the sprinkler system in place. The weather this spring had more moisture than usual. Pond level in pond #4 was zero. The pond levels for Ponds 1 & 3 were lower than previous years. Power requirements for the operation of the sprinkler systems is provided from a north electrical service on pond #3 and the north side of pond #1. An electrical distribution system has been installed around the perimeter fence line of the ponds. This distribution system was installed in 2012. There are several electrical disconnect switches located around the perimeter of the ponds.

3.0 TECHNICAL EVALUATION

The technical evaluation of the Crow Butte Mine ponds utilizes data from the systematic inspection reports, results of the annual survey and a visual inspection of the ponds to assess the hydraulic capacities and structural stability of the ponds.

Diary notes of the annual inspection are attached to this report as Attachment 1. The notes cover the visual inspection of the five ponds and the review of the reports and records for the review period of October 13, 2015 through October 07, 2016.

The annual survey (elevations of four base lines) was completed October 24th and compared with previous annual survey data. No problems were indicated from a review of the survey information. The 2016 elevations were compared with elevations taken in 2015. There have been insignificant changes in the elevations when compared with previous surveys. The greatest elevation difference was the west edge of a road; this elevation lowered about 1.5' between 2016 survey notes. Most of the reading varied less than 0.09'. The maximum differential between the two years of survey data was considered insignificant. Results of the annual survey accomplished October 24, 2016 are included as Attachment 2.

Photos of the ponds have been taken for the last seventeen years. There has been significant improvement in the vegetative cover of the pond embankment slopes over the

course of those years. The gravel surfacing of the embankment berms improves the stability of the dam surface embankments. The mixture of vegetation and gravel surfacing use to give the impression of a sparse vegetative cover, but this inspection revealed good vegetation on both types of surfacing. The gravel surfacing of the top of the berms prevents erosion near the top shoulder of the embankments and provides additional stability of the berm when vehicles travel on the berm during inclement weather.

No problems in the existing embankment alignment or sloughing were detected during the visual inspection of the ponds, diversion ditches and embankments. There were no signs of seepage in the embankments or at the toe of the embankment slopes. The drainage channel between ponds 3 & 4 is in good shape. The drainage off the road along the northeast corner of Pond #1 is in good shape, but there was some slight erosion beginning to show up.

A review of quarterly inspection reports indicates there were no significant shortfalls of the pond operations during the year of 2016. All the required inspections, reports and record keeping were accomplished during 2016. The monitoring well analysis reports were taken on a quarterly basis. No significant deviation from baseline data was reported. The quarterly report for the last quarter of 2016 was completed in August.

There have been no changes in the capacity of the diversion ditches over the last 15 years. The existing ditch calculation of ditch flow can be found in Attachment 2 of the 2001 annual inspection report. These ditch calculations are also permanent records on file in the office of Crow Butte Mine. The installed ditches are capable of containing the design storm (USBR one-hour thunderstorm, zone 3) with an adequate freeboard.

The ponds were operated in 2016 at a somewhat lower than in 2015. The capability of transferring one pond's storage into another pond without overfilling was maintained during 2016. As of October 07, 2016 the pond system contained about 69 acre-feet (AF) of stored water. The allowable storage capacity of the five ponds is 167.4 AF, which provides for transfer of any one pond's storage to another pond in the system in the event of an emergency.

4.0 CONCLUSIONS:

The visual inspection of the five evaporation ponds and diversion ditches along with the review of the available inspection reports and data indicate the ponds are operating in the constraints of the engineering design.

The aeration sprinkler system reduces the chances of liner damage and leaks. The system enhances the rate of evaporation, and has been used most of the time this summer. The variation of pond depth was kept below the level where leaks in the liner from previous years have occurred. There were a couple of liner leaks during this year. The salt build-up on the pond liner was not significant during this year's inspection. Vegetation was in good shape. Mowing of the embankment slopes did not appear to have taken place.

The pond system is operating within its designed storage capacity. Adequate freeboard existed in each pond throughout the year and reserve capacity was available in the system to transfer the contents of any one pond to other ponds.

Gopher and rodent maintenance has been adequate. There has been an increase in indications of gopher operations on the embankment areas. Walt Nelson indicated they had addressed gopher control with in-house personnel. Poison is injected manually by hand. Walt has been addressing the gopher activity on a weekly basis.

The commercial and R & D ponds have excellent vegetative cover. The safety of the R & D ponds is good.

Commercial Pond 1 - 2016

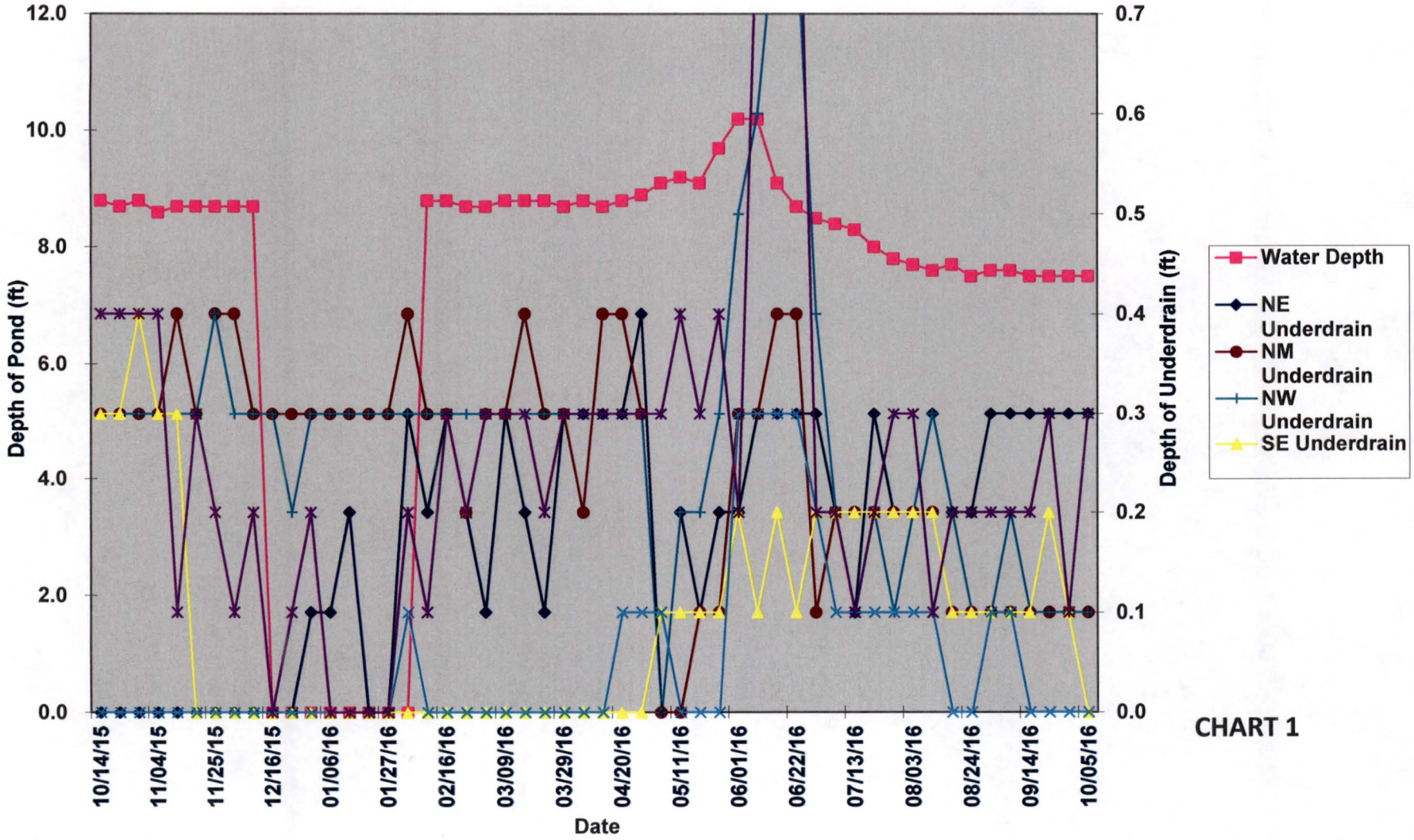


CHART 1

Commercial Pond 3 - 2016

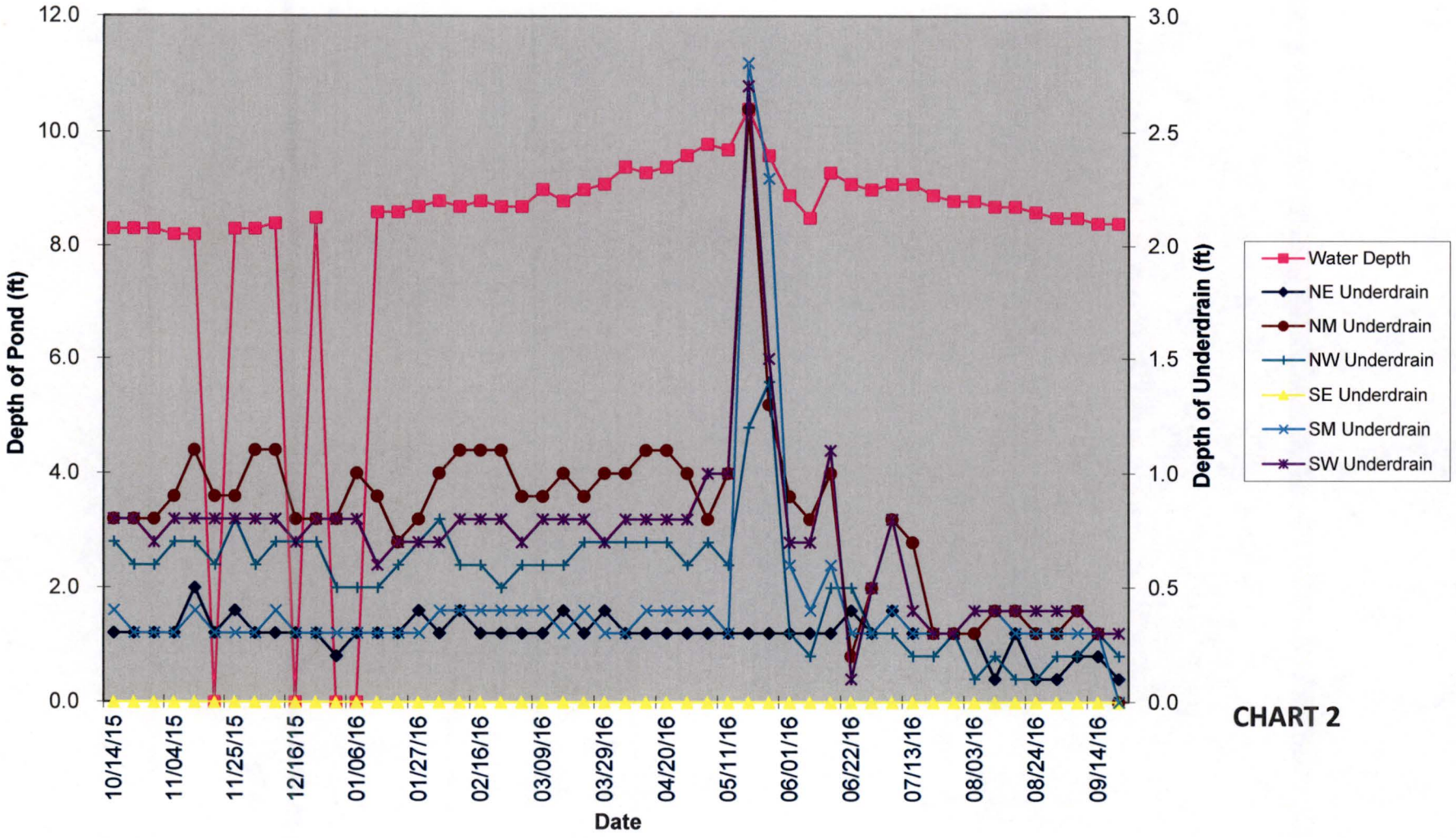


CHART 2

Commercial Pond 4 - 2016

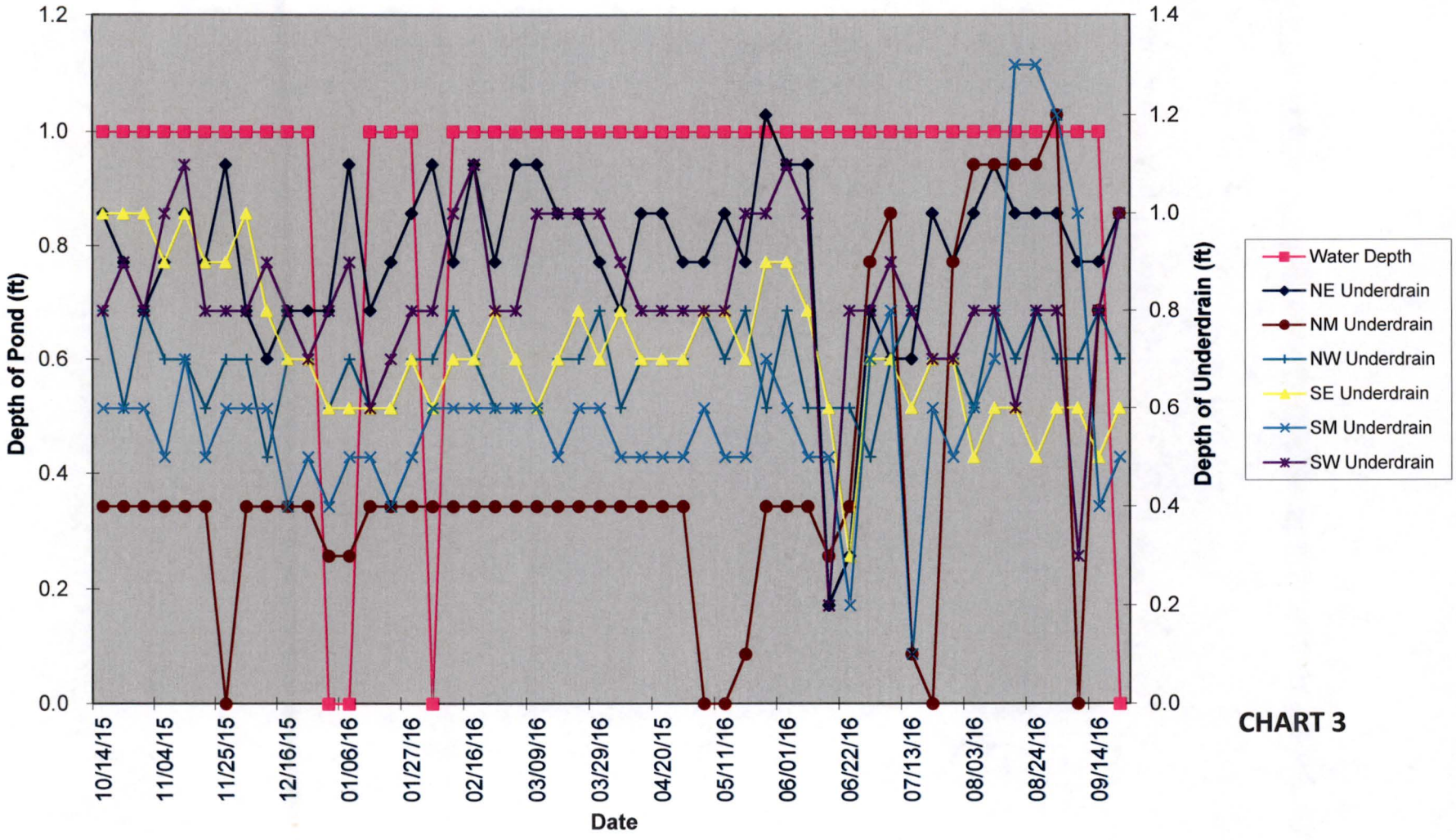


CHART 3

R & D Pond Levels - 2016

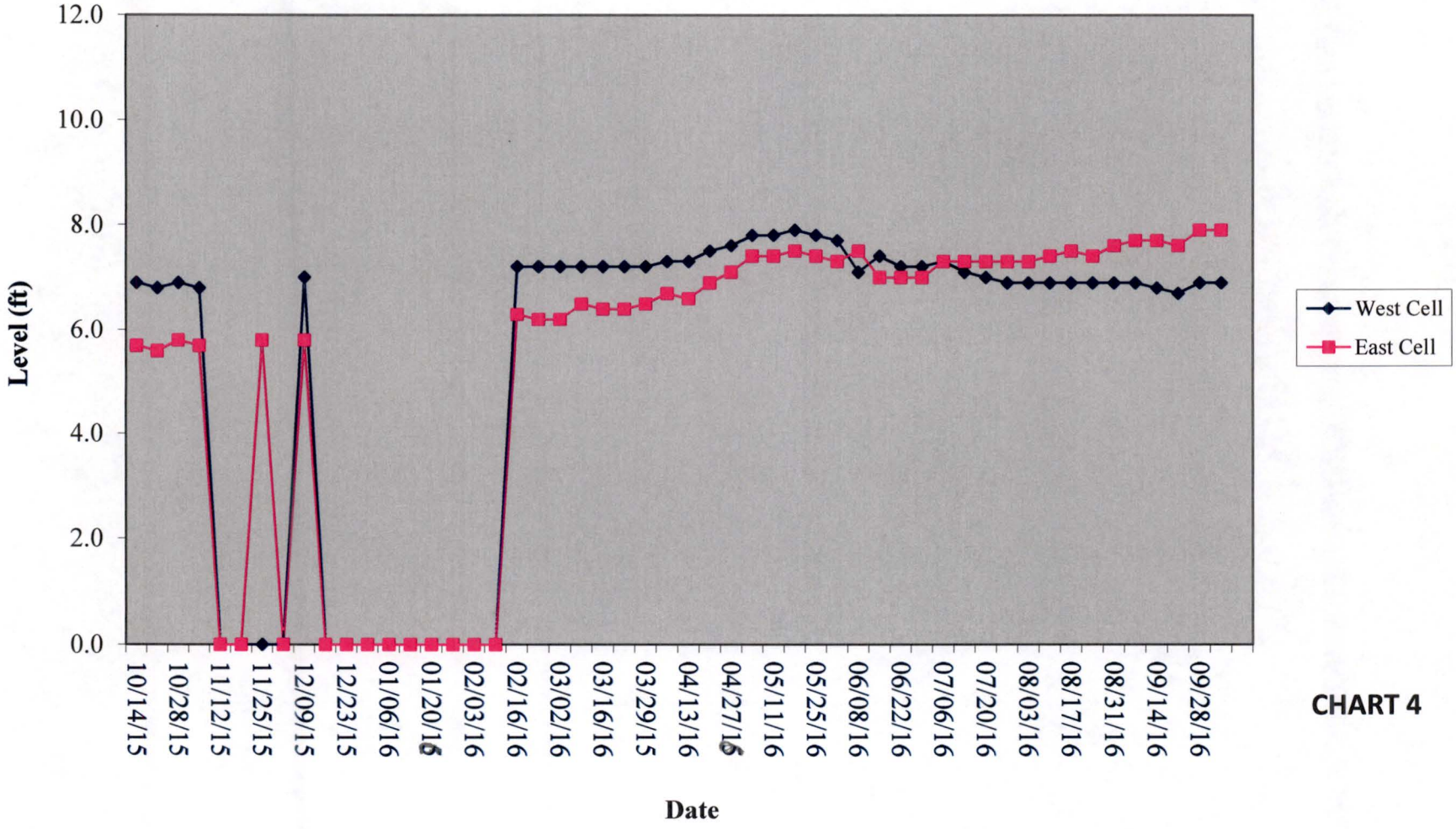


CHART 4

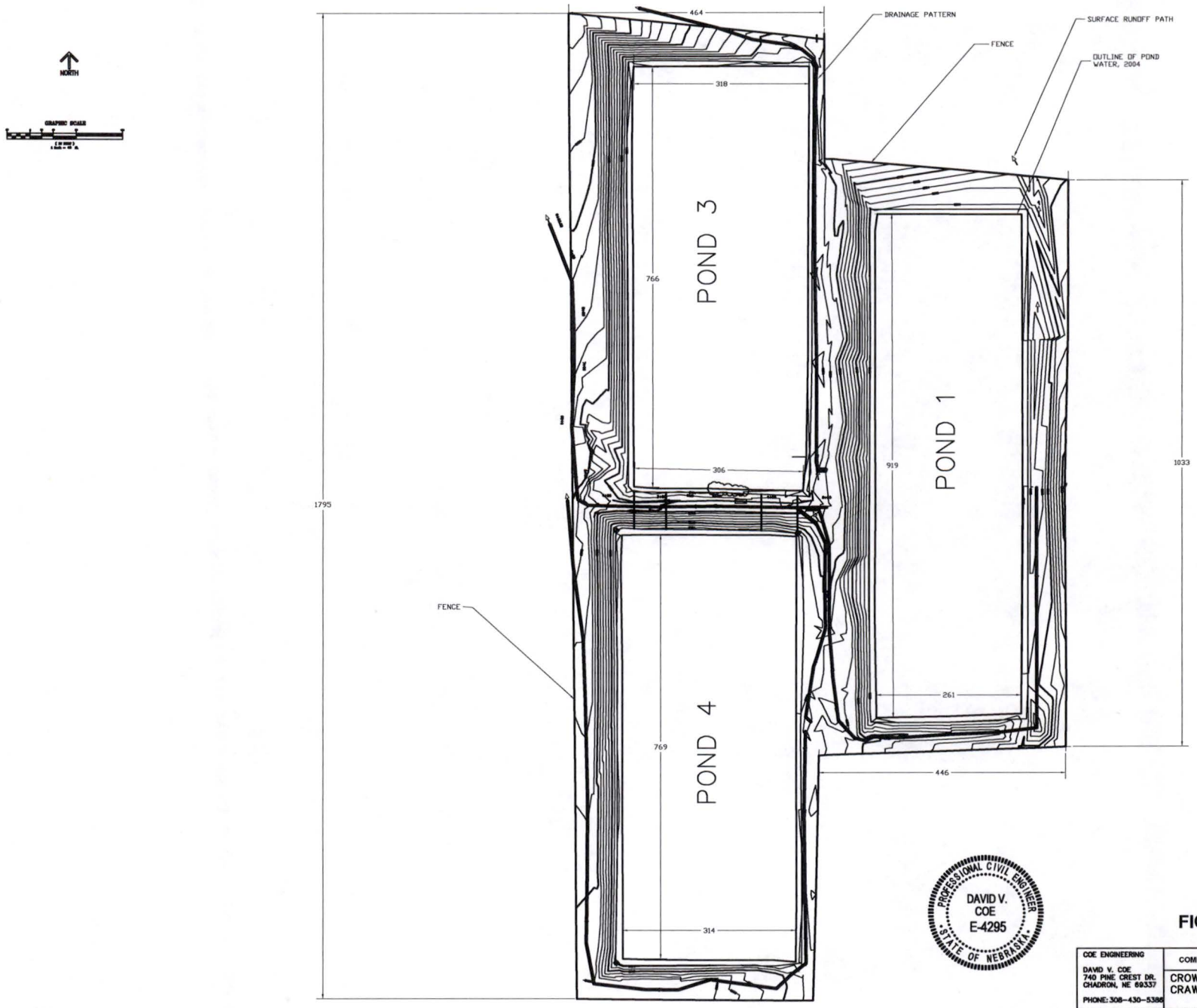


FIGURE NO. 1

FIGURE NO. 1

COE ENGINEERING
DAVID V. COE
740 PINE CREST DR.
CHADRON, NE 69337
PHONE: 308-430-5386

COMMERCIAL EVAPORATION PONDS
CROW BUTTER RESOURCES
CRAWFORD, NEBRASKA

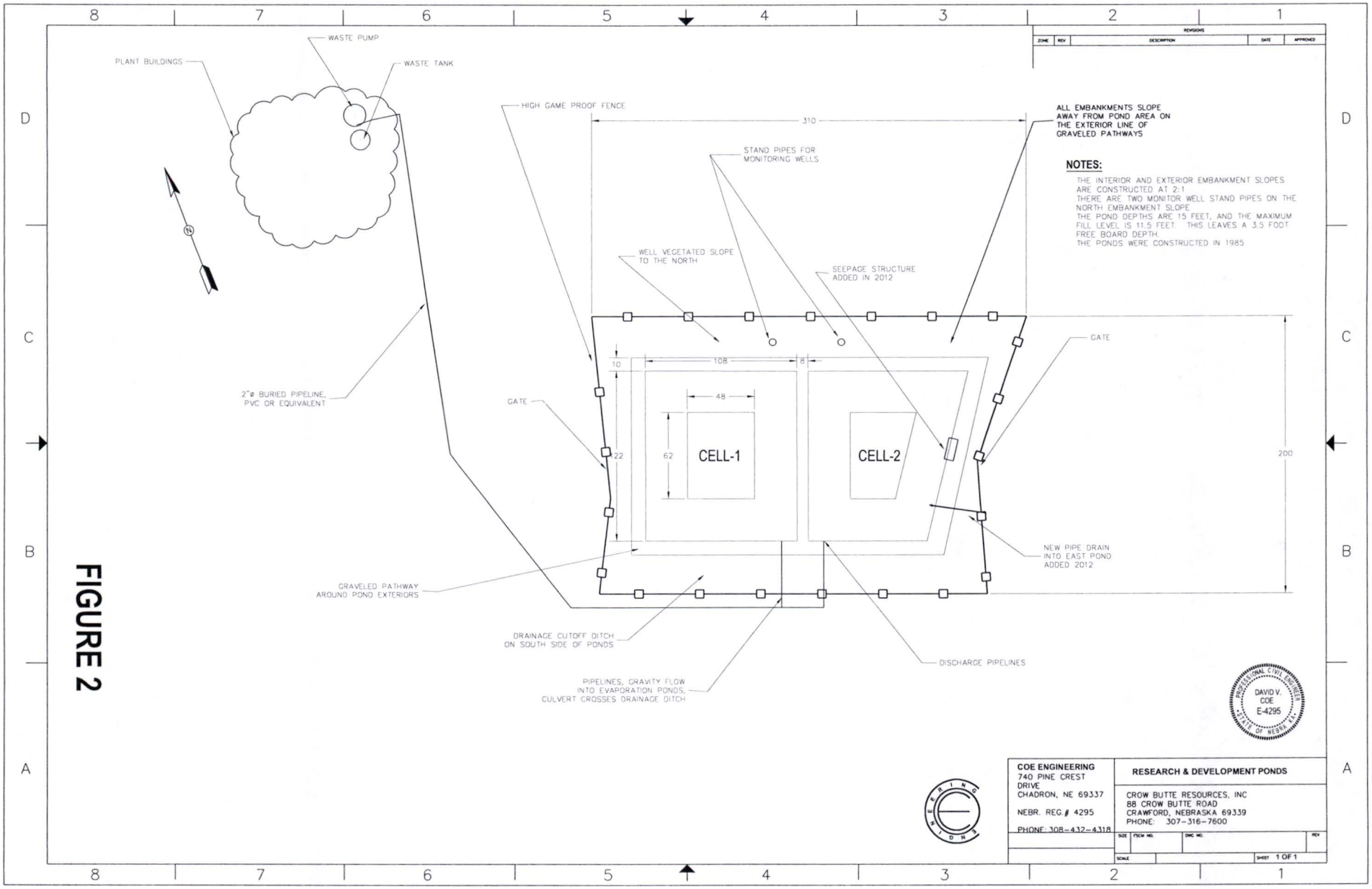

WASTE PUMP
PLANT BUILDINGS
WASTE TANK
HIGH GAME PROOF FENCE
310
ALL EMBANKMENTS SLOPE AWAY FROM POND AREA ON THE EXTERIOR LINE OF GRAVELED PATHWAYS
STAND PIPES FOR MONITORING WELLS
NOTES:
THE INTERIOR AND EXTERIOR EMBANKMENT SLOPES ARE CONSTRUCTED AT 2:1
THERE ARE TWO MONITOR WELL STAND PIPES ON THE NORTH EMBANKMENT SLOPE
THE POND DEPTHS ARE 15 FEET, AND THE MAXIMUM FILL LEVEL IS 11.5 FEET. THIS LEAVES A 3.5 FOOT FREE BOARD DEPTH.
THE PONDS WERE CONSTRUCTED IN 1985
WELL VEGETATED SLOPE TO THE NORTH
SEEPAGE STRUCTURE ADDED IN 2012
GATE
10
108
8
48
62
22
CELL-1
CELL-2
200
2"ø BURIED PIPELINE, PVC OR EQUIVALENT
GATE
NEW PIPE DRAIN INTO EAST POND ADDED 2012
GRAVELED PATHWAY AROUND POND EXTERIORS
DRAINAGE CUTOFF DITCH ON SOUTH SIDE OF PONDS
DISCHARGE PIPELINES
PIPELINES, GRAVITY FLOW INTO EVAPORATION PONDS, CULVERT CROSSES DRAINAGE DITCH
REVISIONS
ZONE
REV
DESCRIPTION
DATE
APPROVED
PROFESSIONAL CIVIL ENGINEER
DAVID V. COE
E-4295
STATE OF NEBR.
COE ENGINEERING
740 PINE CREST DRIVE
CHADRON, NE 69337
NEBR. REG.# 4295
PHONE: 308-432-4318
RESEARCH & DEVELOPMENT PONDS
CROW BUTTE RESOURCES, INC
88 CROW BUTTE ROAD
CRAWFORD, NEBRASKA 69339
PHONE: 307-316-7600
SIZE
FSCM NO.
DWG NO.
REV
SCALE
SHEET 1 OF 1

FIGURE 2

CBR POND INSPECTION, October 07, 2016 by David V. Coe, PE

I arrived at Crow Butte Resources mining operation about 9:00 in the morning. I met with Walt Nelson. We discussed the safety requirements for performing work at Crow Butte Resources. I reviewed the safety requirements for entering the restricted areas of Crow Butte Resources. There has been a change in the way individuals are screened out after leaving a restricted area. Individuals are screened for excessive alpha and beta radiation at the two pond enclosures and a final screening at the main office. I was given a visitor's pass with a neck band and a waist belt monitor. Walt Nelson and I then made a physical inspection of the commercial retaining ponds and the research & development ponds. The annual survey of the elevation points had not been accomplished yet by Pine Ridge Surveys as of October 7th. Walt will send me the survey information after he has received the report from Phillip Curd (Registered Land Surveyor). Walt indicated they had experienced leaks in ponds one and three during the year. No leaks were experienced in the R & D ponds this year. The weather this summer has been mild, with a fair amount of precipitation occurring during the spring and summer.

Walt Nelson and I began our inspection of the commercial retention ponds about 9:30 this morning. The weather was pleasant and mild. We started on the northwest corner of pond #1. Below are my visual comments as I walked around the top of the berms and the toe of the slopes of the three retention ponds. Pond #1 depth was 7.5' or about 8.5 feet of freeboard remaining.

On the west berm of pond #1 there is vegetation mixed with a limestone gravel surface. The vegetation is good. The vegetation along outside slope of the pond is good and well established. I did not see any evidence of sloughing along the embankment of Pond #1. I did not observe and evidence of gopher activity, but Walt indicated they have had some problems with gophers. Minor gopher control is currently accomplished by hand with Crow Butte employees, about on a weekly basis. The sheet erosion along the east cut bank, middle part of pond did not change much since the last inspection. There is still evidence of sheet erosion, but no significant change since 2015. There are no signs of leaks along the toe of the dam embankment. There was a small liner tear on the interior slope of the west bank liner. The tear occurred when the crew was lowering the sprinkler system into the pond. Walt indicated that the original sprinkler heads were brass and they are changing the sprinkler heads to Teflon which will be less likely to tear the pond liner. The Mine worker made a temporary patch on the tear and Walt plans to have Colorado Liner Company install a larger permanent patch over the small rip in the liner.

We then began inspection of pond #3 at the northeast corner and walking to the west and then along the west embankment of pond #3. The vegetation is excellent on the fill slopes of pond #3. There was no evidence of leaking along the toe of the exterior embankment. The pond water depth was 8.3 leaving 9.2 feet of freeboard.

The spray heads used for evaporation were operating in Pond #3. The Mine experienced a liner leak in Pond #3 sometime around the month of May, The Mine have been running weekly tests on the monitoring wells since the leak took place.

I reviewed the vegetation establishment and drainage between ponds #3 & #4. This has been graded to drain and there were no standing water between the two embankments. The riprap embankment of the slope below the two ponds is in good shape. The vegetation between the two ponds was excellent. I did not notice any sloughing along the west embankment slopes of pond #3 and #4.

We then inspected the embankment of Pond #4. The berm on top of the embankment looked good.

The pond depth of #4 was zero, leaving 17.5 feet of freeboard. Colorado Liner Company was at the site making repairs to the top liner. The line company was installing a liner extension near the northeast corner of the pond. This attachment was along the vertex of the northeast corner. A Crow Butte crew was vacuuming sediment from the pond bottom. They were also removing rain water which had collecting near the center bottom of the pond. This sediment is transported to the Research & Development ponds for disposal.

We completed our visual inspection of the commercial ponds walking up the east embankment of Pond #3.

The inspection of the commercial ponds was completed. We went into a small building near the exit gate and screened out our boots, hands and clothing. We tested for the amount of alpha and beta rays. Everything checked out okay.

Walt Nelson and I went to the Research & Development Ponds to inspect their condition.

The R & D ponds consist of two ponds about 15 feet deep with a filling allowable depth of 11.5 feet, leaving a freeboard of 3.5'. The personnel adding water to the R & D ponds assume a maximum water level of 11.5 feet. This marked elevation was noted on both pond liners. The vegetation in the entire pond area was in great shape.

The pond depth in the east pond was 7.9' leaving a free board depth of 7.1'. The west pond depth was 6.9 feet leaving a freeboard of 8.1 feet. I noticed CBR was storing water in these ponds between 5 to 9 feet. This leaves about 6 to 10 feet of freeboard. The two ponds have a cutoff dike on their south side. The cut off dike does not drain and there was no standing water in the bottom of the trench. This has occurred occasionally during the past eight years. The cut-off dike is lined. There is vegetation in the bottom of the cut off dike. I haven't noticed any significant change in the cut off dike for the last nine years.

One could see a slight blue tint in the water stored in the west pond. Walt indicated a blue dye is used in the storage water to enhance the rate of evaporation. I noticed some red patches of sediment on the surface water on the east pond. The Crow Butte crew is washing the sediment towards the center of the pond so they can maintain about three foot of water cover over the sediment build up in the R&D ponds. There was a dumping

berm constructed near the east bank of the east cell. The berm is to protect the liner when the crew is dumping sediment solutions from Pond #4.

I walked around the berms of both R &D ponds. The vegetation in the whole pond area is excellent.

We finished our physical inspections of the five ponds about 10:45 a.m. We then went back to the main building to screen out prior to entering the administrative work areas. The screening operation was similar to that used at the commercial pond area and the R & D pond area. We checked for the amounts of Alpha & Beta radiation on our boots and hands and clothing.

I reviewed the quarterly pond inspection reports. The reports seemed to be in order and are being accomplished as outlined in their operational procedures or directives. Items noted on the safety reports seemed to be taken care of within a reasonable time frame. The records I reviewed were from December, 2015 to October, 2016.

I reviewed the ground water sampling of the commercial ponds and the R. & D ponds. There are two wells on the west side of the commercial ponds and one adjacent to and north of the R & D ponds. These wells have a benchmark analysis taken in 1991, and then the water is sampled on a quarterly basis to determine if any contamination of the ground water is evident. There was no contamination noted on the reports. They have been taking weekly monitoring tests for the two commercial pond monitoring wells since the leaks were discovered in late May of this year. There has been no significant variation in the test results when compared to the base line tests performed in 1991.

My opinion, the evaporation ponds are being administered in a safe and prudent manner. The monitoring for leaks and serious pond erosion is in compliance with the approved monitoring plan. Records of monitoring reports are being maintained in compliance with the monitoring plan.

I observed the fencing of the pond areas; I feel the fencing was good in all pond areas.

The next page is a tabulation of the Evaporation Pond Monitor Wells quarterly results:

EVAPORATION POND MONITORING WELLS

	Date	Alk mg/L	Cl mg/L	Conductivity umhos	SO_4 mg/L	Na mg/L
Commercial Pond Monitoring Well #1						
	4-Nov-15	202	10.4	456	15.78	15.13
	11-Mar-16	200	11.1	464	13.43	14.16
	18-May-16	200	11	462	15.42	16.57
	31-Aug-16	200	12.4	467	14.35	14.07
Base Line-Commercial Pond #1 Monitoring well	**2-Jul-91**	**197**	**2.9**	**423**	**20.43**	**17.67**

EVAPORATION POND MONITORING WELLS

	Date	Alk mg/L	Cl mg/L	Conductivity umhos	SO_4 mg/L	Na mg/L
Commercial Pond Monitoring Well #2						
	4-Nov-15	185	6.4	419	15.03	12.69
	11-Mar-16	184	6.2	422	13.06	12.43
	18-May-16	184	6.5	421	14.47	13.61
	31-Aug-16	184	6.6	423	13.73	13.73
Base Line-Commercial Pond #2 Monitoring well	**2-Jul-91**	**190**	**3.47**	**412**	**11.33**	**13.37**

RESEARCH & DEVELOPMENT PONDS MONITORING WELL

	Date	Alk mg/L	Cl mg/L	Conductivity umhos	SO_4 mg/L	Na mg/L
	4-Nov-15	170	2.8	389	9.69	14.06
	11-Mar-16	169	2.3	391	7.25	14.56
	18-May-16	169	2.8	390	8.76	15.98
	31-Aug-16	169	2.6	391	7.99	14.31
Base Line	**15-Jan-91**	**175**	**1.7**	**409**	**10.8**	**14.5**

The annual survey of the commercial ponds was accomplished by Pine Ridge Surveys (Phillip Curd, R L.S.) October 24th. A review of the survey documents (Attachment #2) did not indicate there has been any appreciable settling of the original pond construction embankments. A comparison of the surveys completed in 2011 and 2015 had no deviations greater than 0.9' except on a road bench elevation.

Photos of my inspection follow on the next seven pages of this report.

David V. Coe 10/28/2016

DAVID V. COE, PE
Nebraska Registration No. 4295

#1 Southeast view of evaporation pond #1, date: 10/07/16

#2 Northwest view of pond #1. Date: 10/07/16

Northeast view of pond #1. Date: 10/07/16

Southeast view of Pond #3. Date: 10/07/16

Northeast view of Pond #3, about 9.2' of free board. Date: 10/07/16

West embankment of Pond #3 Date: 10/07/16

Southwest view of Pond #4. Colorado Liner Co. repairing liner. 10/07/16

Small rip in liner of pond #3: Date: 10/07/2016

South view of Pond #4, 10/07/2016

View of diversion ditch on the south side of the R & D ponds. Photo taken 10/07/16

North embankment slope of R & D ponds; Good vegetation. 10/07/16

Northwest view of East R&D pond, 10/07/16

Northwest view of R&D ponds, west pond in foreground, 10/07/16

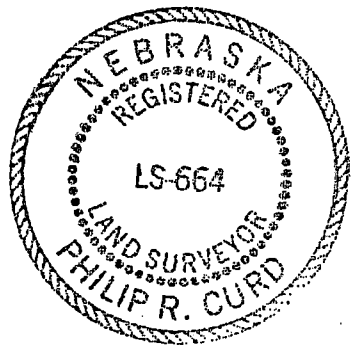
Southwest view of east cell, R & D Ponds, 10/07/16

CROW BUTTE RESOURCES, INC.
RANGE ONE
CROSS SECTIONS FOR PONDS
STATION 0+00
October 24, 2016

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3851.77	0+00 B.L.	REBAR&CAP
89.0	3850.88	FENCE	GROUND
118.10	3852.70	GROUND	HUB GONE
132.10	3854.43	TOE OF SLOPE	TOE
162.80	3867.12	MIDPOINT SLOPE/DIRT	GROUND
195.50	3879.96	OUTSIDE OF BERM	GROUND
356.65	3880.82	MIDPOINT POND ON BERM	REBAR GONE
532.65	3880.98	OUTSIDE EDGE BERM	GROUND
539.00	3879.01	"V" OF DITCH	GROUND
548.47	3883.13	TOP OF SLOPE	GROUND
554.20	3884.50	FENCE	GROUND
560.06	3883.82	WEST EDGE OF ROAD	GROUND
563.98	3883.82	ROAD (FORMER EDGE)	GROUND
576.49	3884.40	ROAD (FORMER EDGE)	GROUND
579.50	3884.35	EAST EDGE OF ROAD	GROUND
585.34	3883.89	SIDE OF DITCH	GROUND
588.20	3883.50	"V" OF DITCH	GROUND
594.56	3885.11	TOP OF DITCH	GROUND
639.68	3888.60	0+00 E.B.	REBAR&CAP

Note: Elevations taken with a GPS, with estimated accuracy of .10 of a foot.

Philip R Curd
Philip R. Curd, LS-664



ATTACHMENT 2

CROW BUTTE RESOURCES, INC.
RANGE TWO
CROSS SECTIONS FOR PONDS
STATION 5+00
October 24, 2016

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3862.19	5+00 B.L.	REBAR&CAP
92.30	3860.94	FENCE	GROUND
144.10	3862.18	HUB	HUB
150.12	3862.91	TOE OF SLOPE	GROUND
173.00	3871.30	MIDPOINT OF SLOPE	GROUND
194.70	3880.57	OUTSIDE EDGE BERM/DIRT	GROUND
205.11	3881.47	INSIDE EDGE BERM/LINER	LINER
522.23	3880.66	INSIDE EDGE BERM/LINER	LINER
528.04	3880.49	OUTSIDE EDGE BERM/REBAR	REBAR
537.60	3878.75	"V" OF DITCH	GROUND
563.25	3883.13	WEST EDGE OF ROAD	GROUND
577.22	3883.30	EAST EDGE ROAD	GROUND
608.97	3894.15	MIDPOINT OF SLOPE	GROUND
634.40	3904.69	OUTSIDE EDGE BERM	GROUND
636.80	3905.03	PREV. OUTSIDE EDGE BERM	REBAR
646.25	3905.27	INSIDE EDGE BERM	LINER
907.11	3905.14	EDGE BERM	LINER
909.70	3905.18	INSIDE EDGE BERM	LINER
915.40	3904.99	CENTER OF BERM	REBAR
918.67	3905.10	OUTSIDE EDGE BERM	GROUND
934.02	3899.94	W. EDGE FLAT BOTTOM DITCH	GROUND
945.10	3899.88	E. EDGE FLAT BOTTOM DITCH	GROUND
970.10	3908.69	TOE OF SLOPE	GROUND
993.04	3910.14	FENCE	GROUND
998.89	3910.89	TOP OF SLOPE	GROUND
1007.36	3914.09	W. EDGE OF ROAD	GROUND
1019.36	3914.57	E.EDGE OF ROAD	GROUND
1022.04	3916.02	E. TOE OF SLOPE	GROUND
1033.59	3919.61	MIDPOINT OF SLOPE	GROUND
1076.88	3929.01	TOP OF SLOPE	GROUND
1094.55	3929.45	5+00 E.B.	REBAR&CAP

ATTACHMENT 2

CROW BUTTE RESOURCES, INC.
RANGE THREE
CROSS SECTIONS FOR PONDS
STATION 10+00
October 24, 2016

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3874.33	10+00 B.L.	REBAR&CAP
95.79	3868.87	FENCE	GROUND
122.07	3870.55	TOE OF SLOPE	HUB GONE
147.93	3879.47	MIDPOINT SLOPE	GROUND
174.29	3890.11	OUTSIDE EDGE BERM	REBAR GONE
186.03	3890.66	INSIDE EDGE BERM	LINER
500.53	3890.87	INSIDE EDGE BERM	LINER
509.95	3889.77	OUTSIDE EDGE BERM	REBAR
537.22	3887.93	WEST EDGE ROAD	GROUND
545.28	3888.09	EAST EDGE ROAD	GROUND
553.16	3887.02	W. EDGE FLAT BOTTOM DITCH	GROUND
560.75	3887.06	E. EDGE FLAT BOTTOM DITCH	GROUND
570.03	3889.61	TOP OF DITCH	GROUND
598.81	3891.25	TOE OF SLOPE	HUB/gone
617.45	3898.12	MIDPOINT OF SLOPE	GROUND
634.62	3904.98	OUTSIDE EDGE BERM	REBAR
644.08	3905.20	INSIDE EDGE BERM	LINER
908.88	3905.03	INSIDE EDGE BERM	LINER
918.91	3904.97	OUTSIDE EDGE BERM	REBAR
931.84	3900.55	W. EDGE FLT. BTM. DITCH/TRAIL	GROUND
942.79	3900.58	E. EDGE FLT. BTM. DITCH/TRAIL	GROUND
974.69	3911.06	TOP OF DITCH	GROUND
990.08	3912.08	FENCE	GROUND
1014.22	3914.91	TOP OF DITCH	GROUND
1020.56	3912.82	"V" OF DITCH	GROUND
1024.58	3915.15	TOP OF DITCH	GROUND
1038.92	3918.03	MIDPOINT OF SLOPE	GROUND
1067.73	3920.70	TOP OF SLOPE	GROUND
1086.92	3920.06	LOW POINT	GROUND
1148.50	3924.95	10+00 E.B.	REBAR&CAP

ATTACHMENT 2

CROW BUTTE RESOURCES, INC.
RANGE FOUR
CROSS SECTIONS FOR PONDS
STATION 15+00
October 24, 2016

LEFT OF BASELINE	SEA LEVEL ELEVATION	DESCRIPTION	SHOT TAKEN ON
0.00	3883.75	15+00 B.L.	REBAR&CAP
99.14	3875.76	FENCE	GROUND
136.75	3876.04	TOE OF SLOPE	HUB
156.04	3883.70	MIDPOINT OF SLOPE	GROUND
172.93	3890.42	OUTSIDE EDGE BERM	GROUND
186.03	3891.11	INSIDE EDGE BERM	LINER
499.26	3890.98	INSIDE EDGE BERM	LINER
508.81	3891.01	OUTSIDE EDGE BERM	GROUND
514.83	3889.68	"V" OF DITCH	GROUND
524.15	3892.06	TOP OF DITCH	GROUND
536.10	3892.72	FENCE	GROUND
554.32	3893.13	TOE OF SLOPE	GROUND
559.01	3894.61	TOP OF SLOPE	GROUND
696.83	3903.63	HIGH POINT	GROUND
789.56	3905.05	LOW POINT	GROUND
985.55	3915.18	15+00 E.B.	REBAR&CAP

ATTACHMENT 2