

Project: 1801

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April 1, 2004

**VIA HAND-DELIVERY**

Mr. Randall Ferguson  
Colorado Oil & Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
Denver, CO 80203

**Re: Former Simpson "A" Pit  
SENE Section 12 – T1S – R58W  
Site Investigation & Remediation Workplan - Form 27**

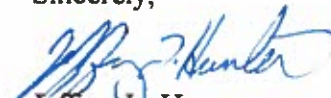
Dear Randall:

On behalf of Fritzler Resources, Inc. ("Fritzler"), attached is the Site Investigation and Remediation Workplan - Form 27 ("Workplan") for the former Simpson "A" Pit referenced above. As agreed, the Workplan is timely submitted.

As you know, in a letter dated February 13, 2004, the Colorado Oil & Gas Conservation Commission ("COGCC") determined that Beren Corporation ("Beren") is the responsible party for the former Simpson "A" Pit. Specifically, COGCC acknowledged that the former Simpson "A" Pit was closed prior to Fritzler's operation of the oil and gas lease. Therefore, in the letter COGCC required that Beren submit a Form 27 to address the former Simpson "A" Pit. Notwithstanding this, as the current operator of the oil and gas lease, Fritzler is voluntarily submitting the enclosed Workplan to address the former Beren pit. As we discussed, Fritzler's submittal and implementation of the Workplan is a cooperative effort to address COGCC's concerns. The submittal of the Workplan is not an admission of liability and does not alter COGCC's determination that Beren is the responsible party.

Fritzler appreciate the COGCC's assistance and cooperation and looks forward to working with the COGCC to ensure that the former Beren pit is properly closed in accordance with COGCC requirements. Please call if you have any questions.

Sincerely,

  
Jeffrey L. Hunter

Enclosures

cc: M. Bell (COGCC)  
D. Wreath (Beren Corporation)  
[33520-0002/DE040890066]

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Fritzler Resources, Inc.

COGCC

# **Site Investigation and Reclamation Work Plan for the Historic Simpson Pit**



*Section 12, Township 1 South Range 58 West*

*April 2004*

# *Site Investigation and Reclamation Work Plan for the Historic Simpson Pit*

## **Article I. Introduction**

Fritzler Resources, Inc. (FRI) hereby provides the following Site Investigation and Reclamation Work Plan (Work Plan) to address the Colorado Oil and Gas Conservation Commission's (COGCC) concerns regarding a historic, closed pit at the Simpson Lease (the Simpson Pit). The primary objective of this Work Plan is to address the requirements of the Notices of Alleged Violations (NOAVs) dated November 1, 2002 and December 10, 2003 and complete final reclamation of the Simpson Pit in accordance with applicable COGCC Series 1000 regulations. This Work Plan is submitted together with FRI's Form 27 to address the requirements described in the NOAVs.

This Work Plan presents the scope of work that will be implemented to evaluate and reclaim the Simpson Pit. The Work Plan is segregated into five sections:

- Introduction
- Site Characterization
- Selection of Appropriate Reclamation Action
- Implementation of Selected Reclamation Action
- Performance Monitoring
- Closure Requirements and Termination

FRI anticipates that completion of the above described actions, as further discussed below, will bring the Simpson Pit to final closure. As further discussed below, selection of the appropriate reclamation action, implementation, performance monitoring and closure are contingent on the results of the Sampling and Analysis Program (SAP) for the Simpson Pit described in Article II below.

The Simpson Pit is located in the SE/4NE/4, Section 12, Township 1 South, Range 58 West. The Simpson Pit is a historic, production water pit that was operated by Beren Corporation and its predecessors (Beren) from approximately 1964 through 1979. Beren allegedly closed the Simpson Pit in 1979, more than a quarter of a century ago.

Such a period of time offers a unique opportunity to evaluate the natural attenuation processes and the effect of the drought on the soils in the Simpson Pit. These factors will be taken into consideration in evaluating whether additional reclamation efforts are necessary. If required, additional reclamation options may include soil amendments, tilling and re-contouring or in-situ treatments such as bio and/or phyto-remediation techniques. Depending on the results of the SAP, soil removal activities (i.e., hot spot removal) may be required. The greatest challenge to achieving an effective long term solution for the permanent re-vegetation of the Simpson Pit is the current drought which Colorado is experiencing. A phased approach to reclamation will hopefully address the challenge of the drought by characterizing the site and analyzing the reclamation techniques that are appropriate for the area soils and weather patterns. A phased approach should also increase the probability of success for inspiring growth of the indigenous and native grasses and plants.

The challenges are greater today given the potential lack of precipitation in the area. As shown in the photographs in the Appendix, the observation at the Simpson Pit may also be due to a lack of precipitation. It is apparent that current closure practices and procedures may not work in areas experiencing severe drought conditions. It is within this context that FRI suggests a phased approach to reclaiming and returning the Simpson Pit to as close as possible to its pre-lease condition.

## **Article II. Site Characterization**

The Simpson Pit and the surrounding area is shown on the attached maps, pictures and drawings. The general area contours are presented in Attachment 1. Soil Survey Data Maps are presented in Attachments 2 and 3. The location of the historic tank battery, as obtained from COGCC documents, is presented in Attachment 4.

The area around the Simpson Pit clearly shows a proclivity for supporting natural and indigenous vegetation. Areas within the Simpson Pit area also appear to be adequately vegetated. However, certain areas in the Simpson Pit may be showing the impacts of either erosion and/or alkaline and sodic soils. FRI recommends that a site specific characterization be completed given the period of time the Simpson Pit has been closed and the current drought conditions.

To adequately characterize the Simpson Pit, FRI proposes to segregate the Simpson Pit into nine individual surface areas (SA). Each SA measures approximately 160 by 100-ft as shown in Attachments 5, 6 and 7. Within each SA, four soil samples will be obtained from the 0 to 12 inch below ground surface (bgs) interval and the 12 to 24 inch bgs interval. From the four samples collected at each depth interval for each SA, a composite sample will be generated for each SA. This will yield two samples for each SA. These soil samples will be analyzed for EC, pH, and SARS, as shown in Table 2.2A, addressing the COGCC's concerns presented in the referenced NOAVs. A total of eighteen soil samples will be taken and analyzed.

From the above SA composite samples, two site composite samples will then be obtained (Z1-Z9 A 0 to 12 inches and Z1-Z9 B 12 to 24 inches). Two background samples will also be obtained. The full suite of Constituents of Concern (COC's), as shown in the enclosed Table 2.2B, will be performed on each site composite sample and background sample. The following describes the SAP in detail.

### **Section 2.01 Sampling and Analysis Program**

The SAP will be carried out in phases. The primary objectives of the SAP are as follows:

- To determine the extent of the salt impacted soils and develop a mass balance approach for determination of future soil amendments
- Develop vertical and horizontal concentration profiles
- Establish background concentration levels for the surrounding area
- Compare the analytical results from the sampling activities to COGCC standards or background to establish site specific target levels if appropriate
- A visual description of each sample will also be logged

The Simpson Pit area is depicted in the attachments. The Simpson Pit encompasses approximately 490 ft by 290 ft. There appear to be four areas with the Simpson Pit that may be impacted. As discussed above, to complete a proper site characterization, the Simpson Pit will be segregated into nine SAs. The nine SAs are delineated on the enclosed picture and schematically represented below. (Z1 being the NW corner and Z9 being the SE zone.)

Schematic Layout of Surface Areas or Zones for the Simpson Pit			North West      East South
Z1	Z2	Z3	
Z4	Z5	Z6	
Z7	Z8	Z9	

In the field, each SA will be delineated by flags placed in each corner. The corners will be labeled and measured using a 300 foot tape beginning in the South East corner. A GPS locator will be used to locate the NW corner of Z1 and the SE corner of Z9. Four samples will be collected in a stainless steel bowl and composited into a sample for each SA at the 0 to 12 inch bgs interval and the 12 to 24 inch bgs interval yielding a total of 18 composite samples for the Simpson Pit. A representative sample from each composite will be analyzed for the following inorganic parameters: EC, pH and SAR as described on Table 2.2A.

The individual SA composites will then be mixed to obtain a representative composite of the Simpson Pit for 0 to 12 inch bgs interval and the 12 to 24 inch bgs. The two representative composite samples will be analyzed for Nutrients, TEPH and metals as described on Table 2.2B.

In addition, two background samples will be taken from the surrounding area (south of the Simpson Pit). Samples will be collected from the 0 to 12 inch bgs interval and the 12 to 24 inch bgs interval. Background samples will be sampled as above, by collecting four samples in a stainless bowl and compositing them into one sample. Background samples will cover an area approximately equivalent to a single SA.

During sampling all precautions will be taken to prevent any contamination from outside sources.

Quality control and assurance will be provided by a trip blank and one spit sample.

All samples will be obtained using a spade.

#### **Equipment and Supply Requirements:**

1. Stainless Steel bowl, scoop and spoon
2. Sample Labels, chain of custody forms and seals
3. Log Book
4. Sample Jars
5. Gallon Plastic Bags

6. Spade
7. 300 ft. Tape
8. GPS Locator
9. Fluorescent flags and stakes
10. Ice packed cooler
11. Yard stick

#### Sample Collection Procedures:

For each SA and the background samples, all individual samples will be collected first from the selected depth interval and then blended into a composite. The representative composite samples will be similarly mixed. Soil samples will be collected in the bowl, mixed and then transferred to the sample bag. The sample will be labeled, logged in the log book and then transferred to the cooler

## Section 2.02 Analytical Procedures

Soil samples locations and samples will be visually described and logged into the logbook in accordance with the following Table 2.1.

Analysis on the samples collected will be carried out in accordance with the tabulations in Table 2.2 A and B.

As summarized in Table 2.2A and B, a total of 24 samples will be analyzed.

**Table 2.1, Soil Descriptions**

Sample ID	General description	Color <sup>1</sup>	Texture <sup>2</sup>	Compaction <sup>3</sup>	Odor <sup>4</sup>
Z- 1A, 0 to 12					
Z- 1B, 12 to 24					
Z- 2A, 0 to 12					
Z- 2B, 12 to 24					

<sup>1</sup> Colors-Yellowish brown (YB), Red ®, Black ( B), Grey(GY), Green (GR) Qualifiers - hue (lighter (L), darker (D)) – Moisture (M) - Speckled (SP) – Intervals by the inch – 11, 12,... etc. , Extent of i.e.: Length of descriptor by inch- L1, L2,... etc

<sup>2</sup> Texture – Sand (S), Sandy Loam(SL), Loam(LL), Silt loam(SL), Clay-Loam(CL), Clay(C), Field Qualifier 1 - Individual Grains visible to eye, (IGE), Stability of dry Clods (SDC), Stability of Wet Clods (STWC), Stability of ribbon when wet (SRWW) Field Qualifier 2 – yes, no

<sup>3</sup> Compaction – 1 man required to drive sampler, 2 men required to drive sampler, light, medium, heavy. (interval qualifier apply from above)

<sup>4</sup> Odor – light hydrocarbons, (LH), i.e.: paraffinic, - has a sweet smell, heavy hydrocarbon( HH), asphaltic smell, Musty , damp, iron sulfide,(sour smell), Taste- salty, bitter, smooth,

Sample ID	General description	Color <sup>1</sup>	Texture <sup>2</sup>	Compaction <sup>3</sup>	Odor <sup>4</sup>
Z- 3A, 0 to 12					
Z- 3B, 12 to 24					
Z- 4A, 0 to 12					
Z- 4B, 12 to 24					
Z- 5A, 0 to 12					
Z- 5B, 12 to 24					
Z- 6A, 0 to 12					
Z- 6B, 12 to 24					
Z- 7A, 0 to 12					
Z- 7B, 12 to 24					
Z- 8A, 0 to 12					
Z- 8B, 12 to 24					
Z- 9A, 0 to 12					
Z- 9B, 12 to 24					
Z-1 to Z-9 A					
Z-1 to Z-9, B					
Background A					
Background B					
Spilt Sample					
Trip Blank					

**Table 2.2A, Sample Tabulations / Cost per sample**

Constituents of concern Sample ID							
		EC	pH	SAR		Total Cost	Total
Z- 1A, 0 to 12	1	20	20	116		156	
Z- 1B, 12 to 24	2	20	20	116		156	
Z- 2A, 0 to 12	3	20	20	116		156	
Z- 2B, 12 to 24	4	20	20	116		156	
Z- 3A, 0 to 12	5	20	20	116		156	
Z- 3B, 12 to 24	6	20	20	116		156	
Z- 4A, 0 to 12	7	20	20	116		156	
Z- 4B, 12 to 24	8	20	20	116		156	
Z- 5A, 0 to 12	9	20	20	116		156	
Z- 5B, 12 to 24	10	20	20	116		156	
Z- 6A, 0 to 12	11	20	20	116		156	
Z- 6B, 12 to 24	12	20	20	116		156	
Z- 7A, 0 to 12	13	20	20	116		156	
Z- 7B, 12 to 24	14	20	20	116		156	
Z- 8A, 0 to 12	15	20	20	116		156	
Z- 8B, 12 to 24	16	20	20	116		156	
Z- 9A, 0 to 12	17	20	20	116		156	
Z- 9B, 12 to 24	18	20	20	116		156	<u>\$ 2,808</u>



**Table 2.2B, Sample Tabulations / Cost per sample**

Constituents of concern Sample ID									
		EC	pH	SAR	TEPH	Metals	Nutrient	Total Cost	Total
Site composite Z-1A - 9A, 0 to 12	19				84	156	42	282	
Site composite Z-1B - 9B, 12 to 24	20				84	156	42	282	<u>\$ 564</u>
BACKGROUND 1 (0-12)	22	20	20	116	84	156	42	438	
BACKGROUND 2 (12-24)	23	20	20	116	84	156	42	438	<u>\$ 876.00</u>
SPLIT SAMPLE	24	20	20	116					<u>\$ 156</u>
TOTAL SAMPLING COSTS									<u>\$4,404</u>

### **Section 2.03 Field Notebooks and Documentation**

Activities including all sampling, analytical, dirt work and re-vegetation efforts will be logged in the site notebook.

### **Section 2.04 Quality Control**

As stated above a split sample and trip blank will be included for quality assurance/quality control. Also cross contamination between SA rows will be eliminated since each SA row will be sampled in series.

### **Section 2.05 Sampling and Analytical Cost Summary**

Site characterization costs will run about \$4,404.00.

### **Section 2.06 Site Characterization Schedule**

Site characterization will be initiated upon approval of the Form 27 by the COGCC. It is anticipated that sampling will be initiated in May 2004.

It is anticipated that analysis of the sampling results and the selection of the appropriate reclamation action will take place during June through August of 2004. It is anticipated that a report providing the results of the SAP will be submitted to the COGCC for its review and approval in August 2004. In addition, the local soil conservation district will be contacted during this time to assist in developing an approach for revegetation of the affected areas in the Simpson Pit.

## **Article III. Selection of Appropriate Reclamation Action**

### **Section 3.01 Introduction**

Based on the results of the SAP, reclamation activities may be required to properly close the Simpson Pit. At this time, FRI cannot evaluate the appropriate reclamation action to address the Simpson Pit. However, there are a number of texts and articles addressing reclamation of soils. The following references offer appropriate methodologies, which can be used as guides if reclamation of the Simpson Pit is necessary:

- "Remediation of Salt-Affected Soils at Oil and Gas Production Facilities" API Publication No 4663
- "Soil Remediation for the Petroleum Extraction Industry" by Duel, Lloyd E, Jr. Ph.D., and Holliday, George H., Ph.D.

The selection of an appropriate reclamation action is contingent on the following factors:

- Sampling results from the site characterization
- Background levels
- Ability to implement a remedy that meets the COGCC closure requirements taking into account weather patterns
- Timing
- Appropriate future land use
- Costs

At this time, FRI believes that the reclamation options include:

- Natural or passive reclamation which would include the addition of soil amendments or nutrients, appropriate tilling, contouring and re-vegetation.
- More intrusive remedial efforts including phyto or bio-remediation and soil removal.

Given the fact that 25 years have passed since the Simpson Pit was closed and only isolated areas within the Simpson appear to be impacted, natural or passive reclamation (addition of appropriate soil nutrients, tilling and re-vegetation) may be applicable. However, it is possible that metals, salts, and hydrocarbons may be present at concentrations above background or in excess of the concentrations presented in COGCC Table 910-1. These constituents of concern may require remediation. The type, level and cost of any reclamation effort will be a function of the refractory nature of the soils as yielded in the characterization study. If appropriate, treatability studies will be performed to evaluate various reclamation options.

Upon completion of the SAP and the treatability studies, if any, FRI will select the most appropriate reclamation action that meets the COGCC closure requirements taking into consideration the other factors referenced above. FRI will submit the selected remedy to the COGCC for approval. It is anticipated that a reclamation action will be selected and submitted for approval by November 2004.

### **Section 3.02 Treatability Studies**

If appropriate, treatability studies will be performed to evaluate the most effective reclamation action to properly close the Simpson Pit. An effective and successful reclamation action balances the practical requirements of time and cost with the detailed research efforts often perceived as required for specific sites. Performing treatability studies as an initial effort in the reclamation of the Simpson Pit may be required and if required should ultimately and effectively reduce both the long term costs and the amount of time required to return the surface of the Simpson Pit to its pre-lease conditions. Of course, any proposed treatability study will be more clearly defined upon completion of the SAP and may not be appropriate.

If completed, initial treatability studies may be performed on a bench scale. The cost and the time required for a field treatability study will be better estimated upon the completion of the bench scale tests.

The general procedures to be followed for completing treatability studies if appropriate, are as follows:

### **Section 3.03 Phase I**

Phase I will evaluate the toxicity of the soil and evaluate the potential for use of commercially available products and/or natural fertilizer and soil amendments to establish adequate vegetation.

Recommended additions and potential soil amendments will be contingent on the time expected for reclamation and the target levels to be achieved. This treatability test would focus on the estimated nutrient requirements to achieve adequate vegetation.

### **Section 3.04 Phase II**

Should the soil prove to be toxic and refractory, a more detailed approach may be implemented. Phase II may involve bio-remediation or phyto-remediation efforts to enhance the growth and activity of the existing bacteria and increase the mineral availability for plant uptake. Phase II may also include evaluating the use of micro-nutrients or the removal of soils. If completed, the detailed Phase II testing will develop detailed treatment procedures dependent on the analysis of the bench scale tests.

## **Article IV. Implementation of Selected Reclamation Action**

Upon approval of the selected reclamation action, FRI will implement the reclamation action. At a minimum, FRI believes the following steps are appropriate to complete the reclamation.

### **Section 4.01 Tilling/Revegetation Program**

In general a successful tilling/revegetation program will consist of the following components:

- Initial Tilling
- Nutrient Addition
- Re-seeding

- Moisture Control

## **Section 4.02 Initial Tilling/Mixing**

The initial task will be to thoroughly turn the soil within the effected area. The equipment which may be used to turn and mix the soil will consist of the following:

Dozers, such as 850 C and D-9

Diesel driven four wheel drive tractors

Multi row disc capable of turning between 6 and 18 inches of depth

A PTO driven tiller

The disc and the tiller will be pulled by the dozer or tractor in both north-south and east-west patterns to ensure complete mixing of the soil and any chosen soil amendments. At a minimum, the top six inches in the affected areas of the Simpson Pit will be scraped using a tractor and shallow harrow equipment.

During the initial mixing, bulking material composed of straw may be added to the soil at up to 10% by volume. The exact amount of bulking material will be determined based on the response of the soil to the mixing and material addition. Nutrients may be added at the ratios described below.

Upon completion of the initial mixing and the addition of the nutrients, periodic deep and shallow tilling of the soil will be conducted with the depth of tilling alternated between events. Initiation of tilling will occur after the soil has dried sufficiently for the multi-disc to be effective. Deeper tilling will consist of thoroughly mixing the soil material to a maximum depth of 18-inches. The level of additional tilling will be based on the condition of the soils. Any required contouring will also dictate the direction of tilling and the initiation of tilling.

## **Section 4.03 Nutrient Addition**

Fertilizer and other amendments may be used to provide the necessary nutrients to optimize the biological activity in the soil and increase the mineral uptake of the vegetation planted.

Nutrient concentrations will be modified with time as the experience with the Simpson Pit effort ensues. The following estimates for nutrient additions will also be contingent on the nutrient analysis performed on the soil samples. The initial estimates for reclamation will target maintenance levels of nitrogen between 100 ppm to 200 ppm and phosphorus concentrations at 5 ppm to 50 ppm. These concentrations will be compared to the carbon concentrations from the initial soil sampling of Simpson Pit. The desired carbon:nitrogen:phosphorus ratios are 200 to 300:10:1. The initial estimate of nutrient addition will be applied at:

UREA at approximately 50 lbs. per 1000 sq. ft.

Diammonium Phosphate at 10 lbs. per 1000 sq. ft.

The application of fertilizer will occur as follows:

- Twice a year

Subsequent applications will be in conjunction with tilling and watering and will be based on the sampling and analytical results presented below.

Prior to application of the fertilizer nitrogen and phosphorus levels will be monitored and additions of fertilizer will be added according to the following:

$$\text{Diammonium Phosphate} = 0.17(50 - \text{P, ppm}) \text{ lbs. per 1000 sq. ft}$$

$$\text{UREA} = 48.7 + .085(\text{P, ppm}) - .265(\text{N, ppm}) \text{ lbs. per 1000 sq. ft.}$$

Where: P = phosphate concentration, ppm

N = Nitrogen concentration, ppm

Gypsum amendments will be calculated based on methodologies as spelled out in the above references. Again, the local soil conservation district will be contacted for appropriate recommendations.

#### **Section 4.04      Reseeding**

Upon completion of the nutrient and grading activities, the affected areas in the Simpson Pit will be re-seeded. If necessary, additional topsoil may be placed and firmly settled, but not compacted.

In conjunction with the local soil conservation district, the affected areas in the Simpson Pit will be re-seeded. Based on previous reclamation projects, FRI anticipates the following seed mixture and application rate may be required to re-vegetate the affected areas in the Simpson Pit.

**TABLE 7-1  
RECOMMENDED SEED MIXTURE AND APPLICATION RATE**

Species	Variety	Percent of Mix	Drill Rate (PLS/acre)
Western Wheatgrass	Arriba	40	6.4
Side Oats Grama	Vaughn	25	2.3
Blue Grama	Lovington	20	0.6
Green Needlegrass	Lodorm	15	1.5

Note: PLS = Pure Live Seed. If broadcast seeded rates should be doubled.

The seed bed will be well settled and firm, but friable enough that seed can be placed at depths of ¼ to ¾ inch. Compacted soils that may restrict root growth will be broken up by tilling. The seed bed will be free of weeds so they won't inhibit establishment of the seed.

The seedbed will be protected from wind and water erosion prior to establishment of the vegetation by application of mulch or planting of a cover crop. If mulch is used, it will be a native hay crimped into the soil on the contour immediately following seeding. The mulch will be weed free and applied at a rate of one ton per acre.

The above revegetation plan is assumed at this time. Prior to re-seeding, topsoil materials may be tested accordingly and the local soil conservation district will be contacted for recommendations for revegetation of the affect areas in the Simpson Pit. Factors to be considered when developing a seeding specification will be species compatibility, climate, topsoil characteristics and slopes, and surrounding vegetation.

## Section 4.05 Moisture control

Moisture content will be determined prior to re-vegetation. Moisture content of the soil to achieve optimum conditions for biological activity and control leachate production is between 15 % and 30% water by volume. The moisture content will fluctuate with the seasons and only under extremely dry weather will the moisture content fall below 15%.

Since water is unavailable in the area, reclamation must take this into account. The addition of soil amendments and nutrients must be balanced with the soil moisture content. Should extreme drought conditions exist, FRI will evaluate whether to delay the tilling program until the moisture content improves. Blowout areas may be created should tilling be initiated during extreme dry soil conditions.

Depending upon the moisture content, the actual furrow direction will also be moderated to assist in dispersing the moisture evenly across the pit area.

The water requirements per 1000 sq. ft. may calculated as shown below:

$$\text{Water} = 14,600(.25 - \text{moisture}) \text{ gal./1000sq.ft.}$$

Where: moisture = soil moisture content fraction.

In some cases excess water may occur and may be unavoidable due to the weather. Just as in a drought condition the soil moisture is unavoidable.

## Section 4.06 Tilling Schedule

The initial tilling schedule, including the events discussed above will be once every two weeks for a period of one month, to begin after approval of the selected reclamation. FRI anticipates that reclamation can begin as early as May 2005. All tilling efforts will be contingent on weather.

## Section 4.07 Reclamation Schedule

The following table summarizes FRI's anticipated schedule for completing the Work Plan and may be modified based on the results of the SAP and the selected reclamation action.

- Site Characterization

Start date: May 2004 : End date: July 2004

- Analysis

Start date: May 2004 : End date: August 2004

1. Sampling Report-----August 2004

- Reclamation Selection Process

Start date: August 2004 : End date: November 2004

2. Reclamation Selection Report-----November 2004

- Implementation of Reclamation Action

Start date: May 2005 : End date: October 2007

- Performance Monitoring:

Start Date: May 2005 : End date: Final Inspection(TBD)

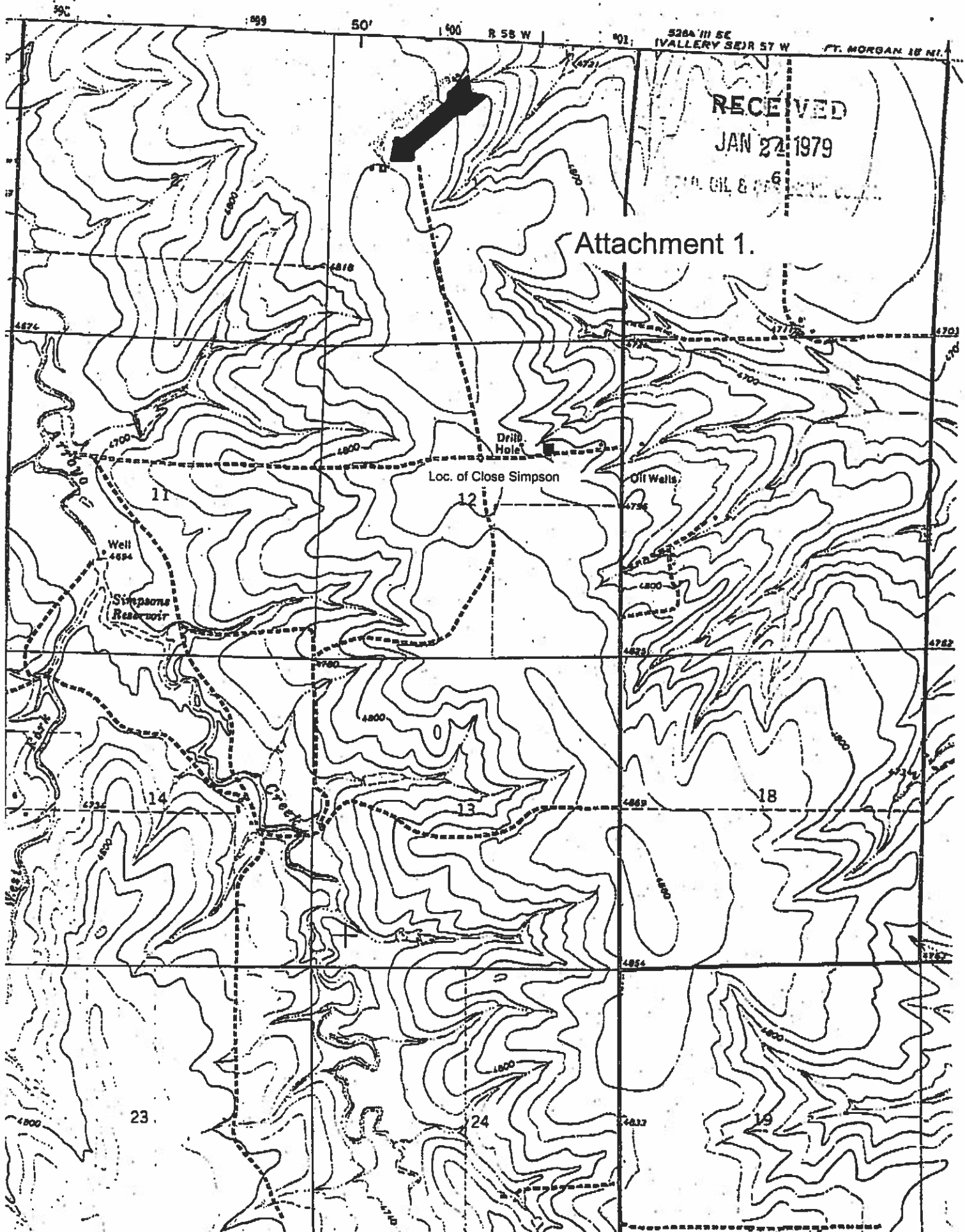
3. Final Report-----October 2007

## **Article V. Performance Monitoring**

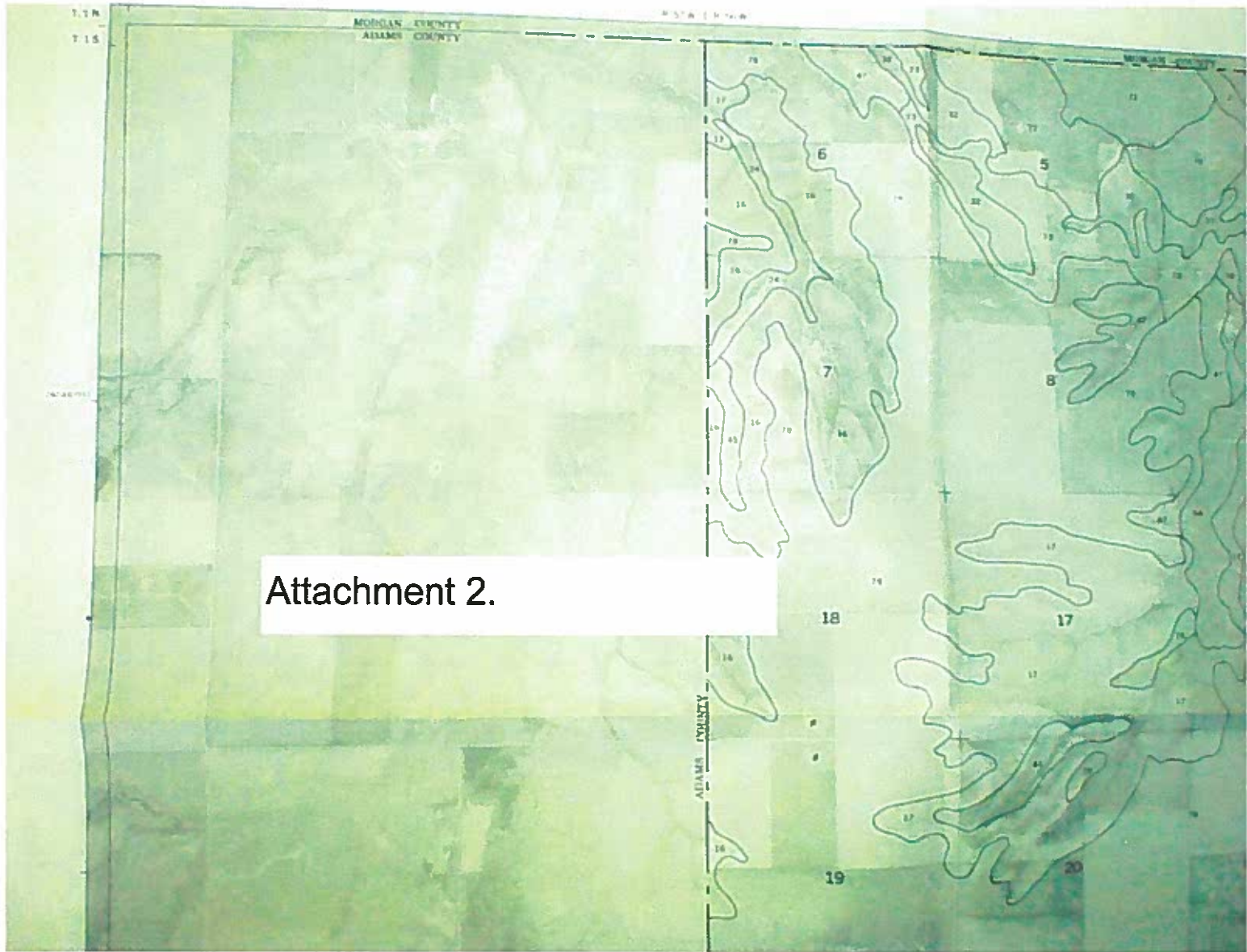
Successful reclamation should return the Simpson Pit back to its pre-lease condition. Successful reclamation should show a healthy growth of indigenous plants and native grasses. Such a result should be apparent based upon a site inspection by COGCC. In the event subsequent inspections should show stressed areas within the Simpson Pit, FRI will review the options available and with approval of the COGCC implement additional reclamation efforts.

## **Article VI. Closure Requirements and Termination**

The first COGCC site inspection that indicates the Simpson Pit has been properly closed and reclaimed under COGCC's Series 1000 regulations will constitute final approval and completion of reclamation activities for the Simpson Pit.





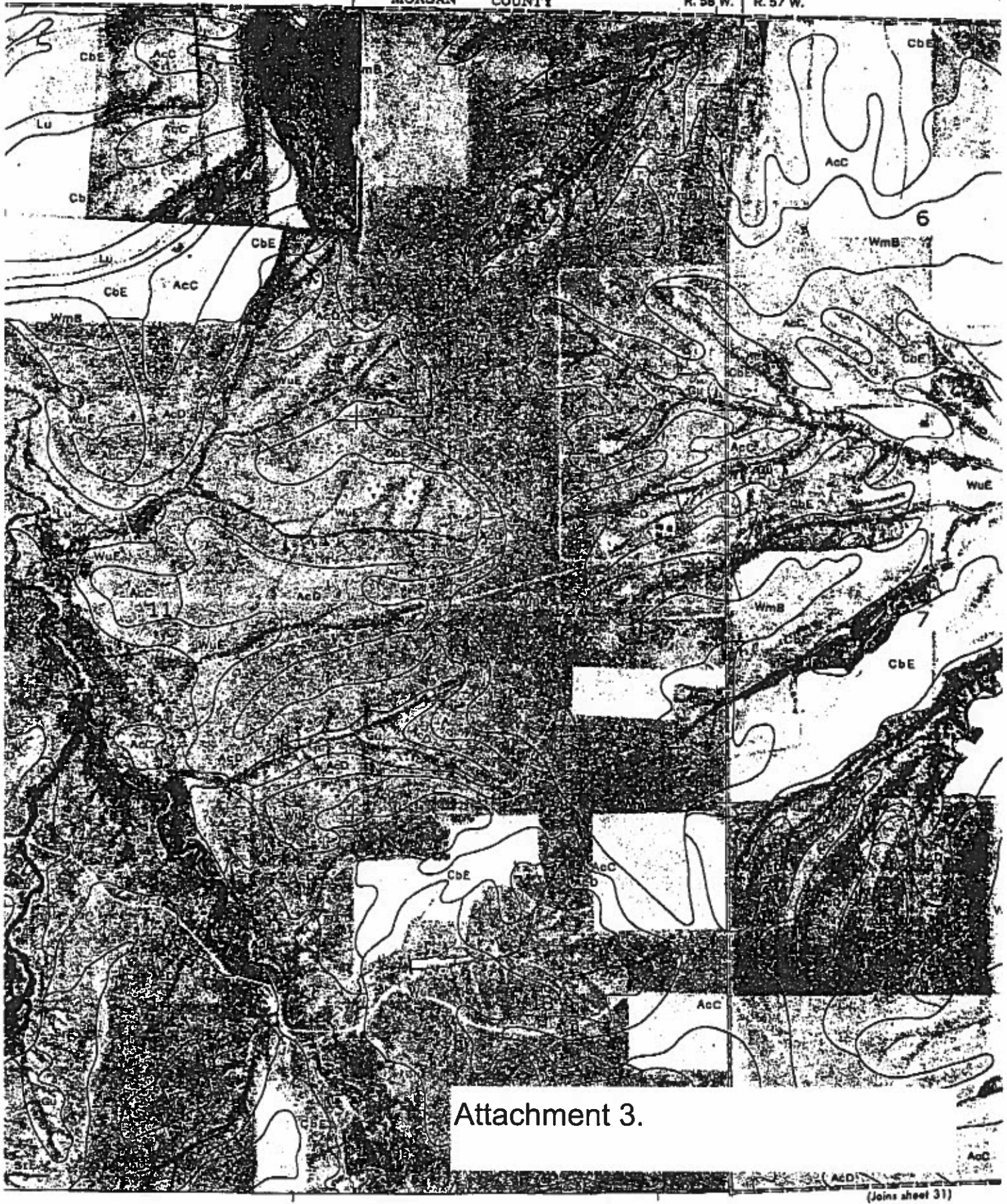


Attachment 2.

ADAMS COUNTY, COLORADO — SHEET NUMBER 15

MORGAN COUNTY

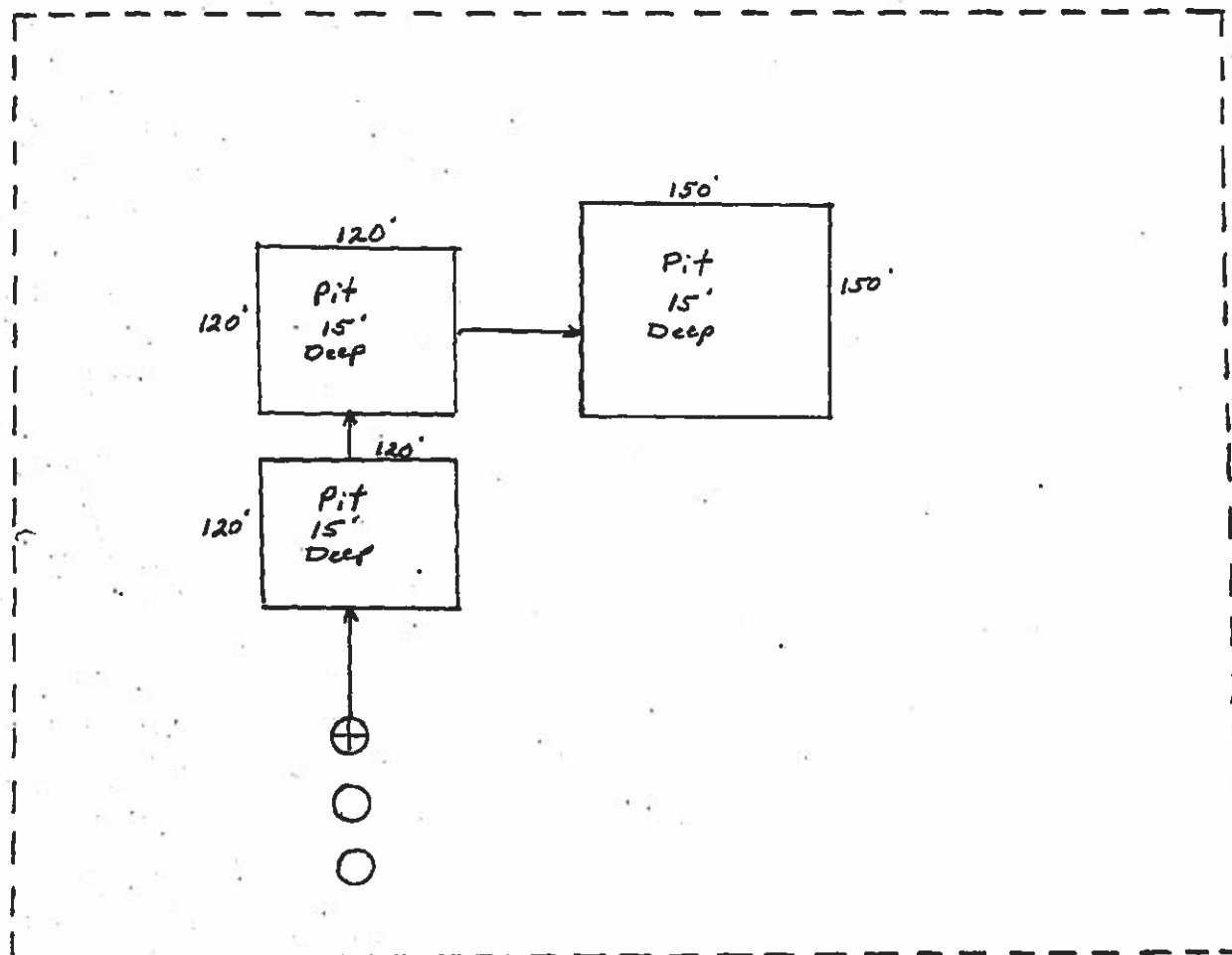
R. 58 W. | R. 57 W.



Attachment 3.

(Joins sheet 31)

#### Attachment 4.



#### TANK BATTERY LEGEND

- ⊕ Emulsion Heater Treater
- Crude Oil Stock Tank

1. All produced fluids are delivered to the emulsion heater treater for separation.
2. Crude oil is delivered to the stock tanks.
3. Fluids from the water leg of the emulsion heater treater are delivered to the initial retaining pit.
4. Any crude oil accidentally dumped to the pits accumulates in the initial pit.
5. Clean water is passed to other retaining pits by means of an overflow pipe.

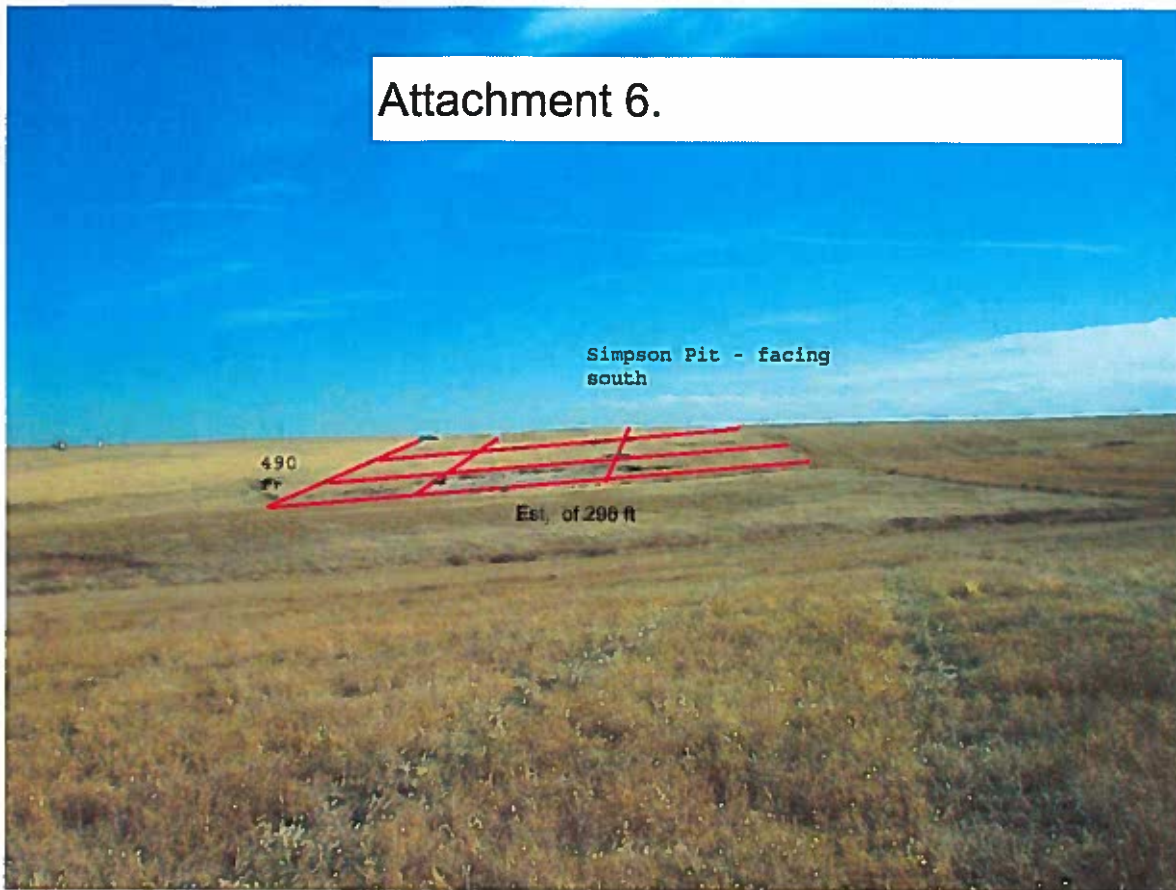
OKMAR OIL COMPANY  
Simpson "A" Lease  
Beacon Field  
Sec. 12, T. 1S., R. 58W.  
Adams County, Colorado



Attachment 5.



## Attachment 6.



## Attachement 7.

Lower Zones z3,z2,z1

