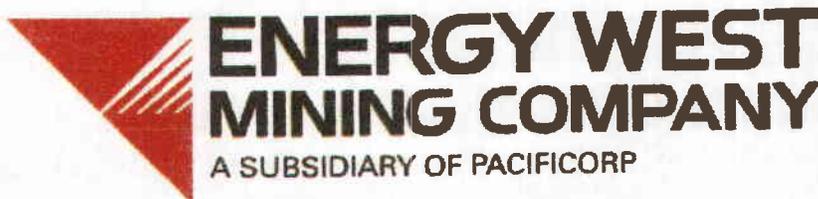


0006

COPY

Annual Subsidence Monitoring Report East/Trail Mountain Properties 2009



Incoming Binder
C/015/018
C/015/019
C/015/009

March 2010

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. *0006*, Date *03/30/2010*

In C *015/0018, 2010, Incoming*

For additional information

Energy West Mining Company
Annual Subsidence Monitoring Report
East and Trail Mountain Properties – 2009

INTRODUCTION

Energy West's East Mountain/Trail Mountain subsidence monitoring study is an ongoing project designed to detect, observe, and report the effects of mining-induced subsidence above the Deer Creek, Trail Mountain, Wilberg/Cottonwood, and Des-Bee-Dove Mines (see Figure 1). This is the twenty-eighth such annual report submitted, and covers the period between September 1, 2008 and August 31, 2009.

The initial report submitted in 1982 details the monitoring methods used in the study; therefore, they are not discussed in depth here. Energy West uses aerial photogrammetric survey methods and annual helicopter reconnaissance flights to monitor subsidence.

The aerial photogrammetry work is contracted to a commercial mapping company. Contracts for the work are bid and awarded for three-year periods. Between 1982 and 1987 the work was contracted through Intermountain Aerial Surveys. IAS established reading points on generally a 200-foot grid but adjusted the location of each point to be on easily reproducible locations. Between 1988 and 1990 the work was contracted to Maps Inc. Maps, Inc. used a 200-foot uniformly spaced grid. In 1991 the work was contracted to

RECEIVED
MAR 30 2010
DIV. OF OIL, GAS & MINING

MapCon mapping consultants. The owners of this company were previously employed by Intermountain Aerial Surveys and felt that better results could be obtained by using the original grid established by Intermountain Aerial Surveys. Therefore, the photogrammetric process reverted back to the original monitoring grid. A change in the method of reading the aerial photographs may result in some slight changes in measured subsidence in some areas. Also, it is crucial that accurate paneled ground control points be surveyed and recorded on the photographs to allow close subsidence readings. Between 1987 and 1990, some of the survey control points in the more difficult to reach areas were not properly paneled and could not be identified on the photographs. It appears that this diminished the precision of the subsidence reading in some of the areas during those years.

Using the aerial photographs derived from flights conducted in October, 2009, elevations were measured at 7,831 different points. These elevations were then compared with the baseline survey elevations measured from the aerial photos collected in 1980, 1986, 1987, 1994 and 2000. The difference in elevation between the original surveys and the 2009 survey constitutes the total amount of subsidence that has occurred. A reconnaissance helicopter overflight on July 22, 2009, did not reveal any new surface effects from subsidence since 2008.

Raw data is included as an appendix to this report in an Excel file called 2009-sub.xls. Helicopter reconnaissance flights in May, June, and July of 2009 revealed no new fracturing or visible signs of subsidence in any of the other monitored areas. Prior to

PacifiCorp's acquisition of the Trail Mountain Mine from ARCO Coal Co. in 1992, subsidence was monitored with conventional ground monuments and transit surveys. Nowhere did that monitoring identify subsidence greater than a few tenths of feet. Longwall mining was completed in the Trail Mountain Mine in 2001, and the mine was closed shortly thereafter. Subsidence at Trail Mountain has been documented in previous reports.

Location

Figure 2 shows areas above current mining areas at Energy West's mines that have potential for mining-induced subsidence. In 2009 three areas of potential subsidence were monitored and mapped. In areas where subsidence has been detected, data is shown in the form of contour maps and profiles.

Lease Relinquishment and Reduction in Subsidence Monitoring

Several portions of the original mine leases have been relinquished on East and Trail Mountains, which means that subsidence in those areas has been shown to be complete enough for the relinquishment to take place. Having relinquished these areas, or in the case of area 12, where no measurable subsidence has occurred, Energy West will no longer report on the subsidence conditions for those areas. Three of the original twenty-five areas chosen for subsidence monitoring were either incorporated into other maps

(Areas 9 and 10) or not been represented on an individual map (Area 12) due to complete lack of subsidence over time. These areas are still mentioned in the report, but are not shown on individual maps or profiles. Other areas where mining has not occurred for 5 years or more are considered to be completely subsided. They are: 1-7, 9-12, and 14-24, covering the old mine areas south of Rilda Canyon. Also, all areas above the Des-Bee-Dove mines (areas 8 and 13) are considered to be completely subsided. Of the original 25 areas that have been chosen for subsidence monitoring, 3 are detailed in this report: 25, 27, and 28. Area 25 was actually mined between the years 1999 and 2004. Dual-seam mining of thick coals in this area resulted in up to 17 feet of subsidence and some Castlegate Sandstone cliff spalling. Area 27 covers the first district of Hiawatha seam longwall panels in the Mill Fork Lease, and Area 28 covers the district of Blind Canyon seam longwall panels and the second district of Hiawatha seam panels (District 2) in the Mill Fork Lease. Mining in these areas has been from 2003 to present. Future lease relinquishments will result in further reduction in monitoring of the older areas.

Area 25

Deer Creek Mine 8th Through 14th East off 5th North Longwall Panels (Blind Canyon)

Deer Creek Mine 2nd Through 8th Right off 6th North Longwall Panels (Hiawatha)

Area 25 contains all of the North Rilda Ridge reserves in the Blind Canyon and Hiawatha seams (Figure 3, Profile Charts 1 & 2). This is an area of dual-seam mining. As of September 2004, the Blind Canyon reserves (9th, 10th, 11th, 12th, 14th, and 15th East panels) were completely mined out, and mining of the Hiawatha reserves 80 feet below was complete, with the complete extraction of 2nd Right through 8th Right panels.

Longwall mining began in this area in the Blind Canyon seam 11th West panel in April of 1999. By August 31, 1999, the eastern 4,400 feet of this panel had been mined. By the end of August 2000, the 12th East Panel had been completed and the eastern 1,900 feet of the 14th East Panel had been mined (there is no 13th East Panel). By the end of August 2001, mining had extracted the remainder of the 14th, 15th, and 9th East Panels. During 2002, the final panel in the Blind Canyon seam (9th East) was completed.

Longwall mining in the Hiawatha seam began in the 5th Right panel (February 2002). 5th Right panel was completed in August 2002. 4th Right panel started in August of 2002, and was completed in January 2003. 3rd Right panel was begun in January 2003 and completed in July, 2003. 2nd Right panel was begun in August 2003 and was completed in October, 2003. 7th Right panel was begun in October 2003, and completed in May 2004. 8th Right panel was begun in May 2004, and completed in August 2004.

Overburden in this area ranges from less than 400 feet in both the north and south of the area to over 1,700 feet beneath North Rilda Ridge. The topography in this region is very rugged. North Rilda Ridge trends east-west in the center of the area and the topography drops off steeply to the north into Mill Fork and the south into Rilda Canyon. The Castlegate Sandstone forms a prominent escarpment (cliff), 100 to 300 feet high, which is present near the top of and encircles North Rilda Ridge on the east, south and southwest. The south facing slopes below the cliff are covered with grass, brush, and juniper trees while the north facing slopes in Mill Fork Canyon are covered with a dense conifer forest. Only small points of Castlegate escarpment are present on the north facing slope.

Subsidence monitoring in this area shows that subsidence has occurred under all of the area mined out in the Blind Canyon seam. The maximum amount of subsidence observed for Blind Canyon mining areas is just over 8 feet in the eastern end of 14th East panel. As the underlying 5th, 4th, 3rd, and 2nd Right Hiawatha seam panels were mined in 2002 and 2003, the amount of subsidence over the 2-seam extraction area increased to over 15 feet in the 2-seam mining area. As of 2009, total subsidence has increased gradually to just over 16 feet in several areas of the dual seam overlap. Numerous subsidence “bullseyes” are present in the area of the prominent cliffs on the south-facing side of Rilda Canyon. Two prominent bullseyes that were present in 2005 above 9th East panel were gone in 2006. These are evidently related to cliff movement, boulder movement, and possibly ground cracking and healing in the vicinity of the cliffs.

In February and June of 1999 six prisms were placed on the top of the Castlegate sandstone cliff or escarpment to monitor the movement of the cliffs as they are undermined in Area 25. All of the prisms moved within a few days or weeks as they were undermined. The movement of the prisms has been essentially stable since 2003. Energy West considers the prism movements to be completed and has stopped monitoring the prisms. The prisms were removed in the summer of 2009. The complete prism movement data can be previous subsidence reports.

Several Castlegate escarpment failures and rock falls occurred as 9th and 8th East panels were mined in the Blind Canyon seam during the spring, summer, and fall of 2002. These are shown on Figure 24. Significant additional rock falls occurred along the escarpment have occurred as the 4th, 3rd, and 2nd Right panels were mined during December 2002 – September 2003, extending double seam mining under the escarpment area.

Fractures have appeared on the surface of North Rilda Ridge in several places. The first of these was an area where several east-west cracks appeared above and to the south of the dual-seam extraction of 11th and 12th East in the Blind Canyon seam and 5th Right panel in the Hiawatha seam. These cracks are gradually filling in, and are less evident now than they were in 2002.

Areas of surface cracking that occurred during 2003 were:

In the area around the rocky Castlegate point containing Prism #1, above 14th East panel (Blind Canyon, single seam mining area), large north-south cracks opened.

Significant east-west cracking has occurred on and just below the prominent Castlegate point at the east end of the mining area. The 9th East Blind Canyon panel, completely extracted in 9/01, has been undermined by the 3rd Right Hiawatha panel, completely extracted in 1/03.

A large east-west crack crosses a ridge on the north side, above the center of the 14th East Blind Canyon panel and the south edge of the 8th Right Hiawatha panel. Warning signs were placed above and below this crack prior to hunting season on 10/14/03. The most severe portion of this crack was filled in using helicopter supported operations during July, 2004.

A few minor springs are located to the west of the undermined area on top of North Rilda Ridge. No effects to these springs by mining have been observed.

Since June 1998, four survey points have been monitored for subsidence in the right fork of Rilda Canyon directly above the 5th North Mains in the Blind Canyon seam where 5th North crosses under the stream bed in the right fork (Figure 3). This is an area of first mining only, with longer pillars and offset crosscuts specifically designed to prevent subsidence. One of the points has disappeared, but the others are still being surveyed. As of the last survey date in August, 2008, no significant movement of any of the points has ever occurred.

Area 27

Deer Creek Mine Mill Fork Lease Area – 12th, 14th, 15th, 16th and 17th West Longwall

Panels (“District 1”)

The Mill Fork State Lease (ML-48258) and the Mill Fork Lease Extension (UTU-84285) form a large lease area to the northwest of the original Deer Creek Mine workings. This lease will be the primary mining area for the Deer Creek Mine for the next several years. Reserves exist in both the Blind Canyon and Hiawatha seams, and a sizeable area of dual-seam mining is projected for the central part of the lease. Overburden is very deep in the Mill Fork Lease, ranging from about 1,000 feet up to over 2,600 feet. The first longwall mining was in the Hiawatha seam, in the deepest area, from south to north for 5 panels in the southern end of the Mill Fork Lease (called District 1). Only single-seam mining will take place in the District 1 area.

The first longwall mining in District 1 in the Hiawatha seam took place in August of 2005. By the date of the 2009 survey, the mineable portions of five (5) panels had been completely extracted: 12th, 14th, 15th, 16th, and 17th West.

Noticeable subsidence has occurred above the combined areas of 12th through 17th West panels (District 1) as of the date of this report; just over 4 feet total so far (Figure 4, Profile Charts 3 and 4). A sizeable part of the western end of the West-East profile (Chart 4) shows a decrease in subsidence from 2008 to 2009. Subsidence shown in 2009 resembles that of 2007. The reason for 2008 being lower in this area is unknown.

Area 28 (Present Mining Area)

Deer Creek Mine Mill Fork Lease Area – 2nd, 3rd, 4th, 5th, 6th, and 7th Left Longwall Panels
(Blind Canyon Seam, “District 2”)

The Mill Fork State Lease (ML-48258) and the Mill Fork Lease Extension (UTU-84285) form a large lease area to the northwest of the original Deer Creek Mine workings. This lease is the primary mining area for the Deer Creek Mine for the next several years.

Reserves exist in both the Blind Canyon and Hiawatha seams, and a sizeable area of dual-seam mining is projected for the central part of the lease. Overburden is very deep in the Mill Fork Lease, ranging from about 1,000 feet up to over 2,600 feet. Area 28 covers the second panel “district” in the Blind Canyon seam (called District 2), just to the north of the 1st Hiawatha panel district (described as Area 27) in the lease. The first longwall mining in Mill Fork District 2 in the Blind Canyon seam took place in February of 2008. By the date of the 2009 survey, portions of the first through 4th (4) panels had been extracted: 2nd, 3rd, 4th and 5th Left. Only a small portion of 4th Left panel was actually mined; the majority of the panel was left in place as a protective support barrier under the highest cover. (Figure 5, Profile Charts 5 and 6). Small but noticeable subsidence has occurred. Maximum subsidence so far over this area has been just over 3 feet. Dual-seam longwall mining in this area is scheduled to begin in December, 2010, with the startup of 20th West longwall panel in the Hiawatha seam.

Predicted Maximum Subsidence

A comparison between observed and predicted maximum subsidence for the various areas on Energy West's property has been made using a method developed by the British National Coal Board (NCB). The NCB method utilizes graphs compiled from numerous field observations and takes into consideration the length and width of the mined-out area, thickness of coal extracted, and depth of cover. The method is claimed to be correct to $\pm 10\%$ in the majority of cases, assuming certain limiting conditions are met. The table below compares predicted maximum subsidence with observed subsidence for areas on East Mountain.

Area	Subsidence (feet)		
	Predicted Maximum	Observed	% of Predicted
1* DC 9E/W 1R	15.2	28.0	184
2 DC 5-8E/W, 3-13R	13.8	13.1	95
3 DC 1N Area	7.7	5.5	71
4 DC 2-17R	13.6	13.5	99
5 DC 2-5L	13.5	15.5	114
6 W 1-2W	5.0	4.5	90
7 Beehive 2N off 8W	6.6	7.4	112
8 Bee/Des E&W Sections	6.8	4.8	104
9 Little Dove 1N	4.3	3.5	81
10 Old American Fuel Mine	7.0	6.1	87

Area	Subsidence (feet)		
	Predicted Maximum	Observed	% of Predicted
11 DC C&D N	13.7	13.2	96
12 W 2L	1.5	0.0	0
13 Des-Bee-Dove Southern Areas	2.0	1.8	90
14 Cottonwood 6-7E	7.6	4.7	62
15 Cottonwood 9-12W	7.2	5.0	69
16 Cottonwood 8-11E	7.4	4.5	61
17 Cottonwood 16-15 W	8.1	7.2	89
18 Deer Creek 2nd-7th R	7.7	7.2	94
19 Deer Creek 7th & 8th E	7.9	4.5	57
20 Deer Creek 1st & 2nd L	7.8	6.1	79
21 Deer Creek 2nd- 7th E	7.5	7.5	100
22 Deer Creek 2nd-8th W	7.5	8.1	108
23 Trail Mountain 2nd-5th E	7.8	8.1	104
24 Trail Mountain 1 st - 10 th Right	7.5	7.0	93
25 Deer Cr. 8-15 th East B.C. Seam	8.6	7.5	87
25 Deer Cr. N. Rilda Both Seams	17.1	17.1	100
26 Deer Cr. 1,2,3L B.C. Seam	7.1	8.4	118
26 Deer Cr. 2 nd West BC Seam	3.2	3.0	94
27 Deer Cr. Mill Fork 12-16W Hia.	7.6	4.7	62
28 Deer Cr. Mill Fork 2- 7L B.C.	8.0	3.3	41

* This area does not fit the NCB prediction model.

In most areas subsidence is less than the maximum predicted by the NCB model. The observed subsidence shown here represents the actual maximum subsidence for the particular geologic conditions -- probably the case in some areas since subsidence appears to have ceased in several areas where the NCB predicted maxima were not reached. In areas showing greater than expected subsidence, chain pillars or barriers between sections are probably crushing so that strata above the workings cave as it would if a wider zone had been mined.

Mitigation of Surface Effects

Prior to mining in an area, Energy West notifies the land owner that mining will be in progress beneath his property. The land owners within the permit boundary are as follows:

Karl A. Seely, Inc.

LDS Church

USDA Forest Service

Elk Springs Property Users Association

Kent Barton

PacifiCorp

State of Utah Institutional Trust Lands Administration

McKinnon Estate

Lavar Jensen & Phyllis Jensen

Energy West will continue to notify those owners prior to undermining their properties.

Over most areas where subsidence has been observed on East Mountain, present land use has not been affected in any way. Areas 2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, and 26 are good examples of subsidence without visible surface disturbance or adverse hydrologic effects. In such areas no mitigation is necessary.

In a few areas, such as Areas 1, 3, 4, 7, 10, 11, 14, 21 and 22, 24, and 25, surface

fractures have been detected. In order to protect livestock PacifiCorp erected a fence around Area 1 (since removed) where fractures are of sufficient magnitude to pose a threat to wandering cattle. In the regions where the fractures could be reclaimed they have been filled in with heavy equipment and the escarpments have been evenly contoured and reseeded. In Area 4, the small tension fractures that formed were reclaimed by filling in the fractures using a motor-grader and reseeding the area. In Area 14, where cracks have also been observed, these were filled in by hand in 1998 and reseeded. The U. S. D. A. Forest Service accepted this mitigation as being sufficient and complete. In area 25, a large fracture above the Castlegate Sandstone was filled to prevent hazardous conditions at the surface.

In Areas 3, 7, 10, 11, 21, 22, 24, and 25, where only minor fracturing has occurred on remote ridges and/or where land use has not been affected, more damage would be done by gaining access to and repairing or fencing fractures than can be justified. Therefore, mitigation is counterproductive in those areas and is not planned.

Summary

As of September 2009 PacifiCorp has identified three (3) areas for continuing study of mining-induced subsidence on the East Mountain/Trail Mountain property. Terrain in the subsidence study areas ranges from relatively flat mountain tops with thick overburden of up to 2,600 feet to steep slopes and cliffs with overburden of less than 200 feet. The most noticeable subsidence effects occur in the steep cliff areas. Most of the fractures observed over mined areas have occurred under these conditions, especially where the Castlegate Sandstone (or similar lithologic unit) crops out or is near the surface. The sandstones yield to stress by brittle deformation (fracturing) and by undermining of balanced or overhanging outcrops.

In areas where overburden is thicker and other more clay-rich formations are present above the mine workings, longwall and room-and-pillar mining methods have allowed the multiple seam mining of large quantities of coal without apparent impact on the surface environment because the overburden yields through plastic deformation. More than eighty percent (80%) of the East Mountain property has conditions similar to those areas; therefore, the mining methods being utilized are well suited to the geologic conditions, allowing subsidence to occur without impacting the hydrology or present land use of the area.

An effort was made again this year to predict maximum possible subsidence for the various areas where subsidence has been detected. The prediction was then compared with

observed subsidence for each area. It appears that the actual subsidence occurring on East Mountain/Trail Mountain is slightly less than that predicted by the NCB model.

Professional Certification of Subsidence Data

I, Kenneth S. Fleck, being a Licensed Professional Geologist in the State of Utah (#5224883-2250), with significant experience in subsidence monitoring, certify that the subsidence data contained in this document was collected under my direction, and the attached subsidence materials were prepared by me using industry-accepted methods. I further certify that the interpretations contained herein are an accurate representation of the subsidence that has occurred.

Dated this 31st day of March 2010.



Kenneth S. Fleck

Kenneth S. Fleck

Professional Geologist

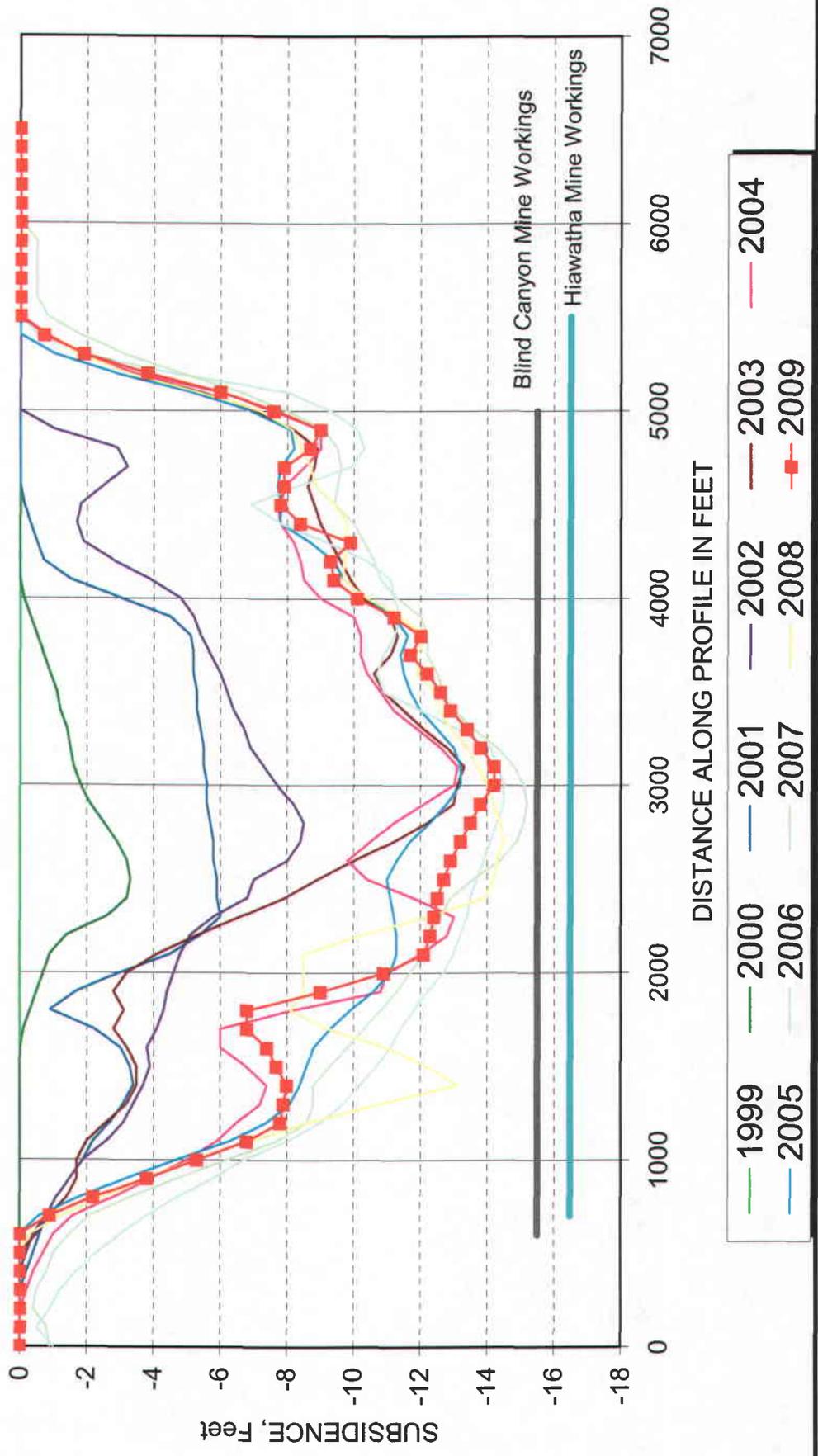
License No. 5224883-2250

Energy West 2009 Subsidence Report

Area 25 Subsidence Profile (North Rilda Area)

North - South

Chart 1

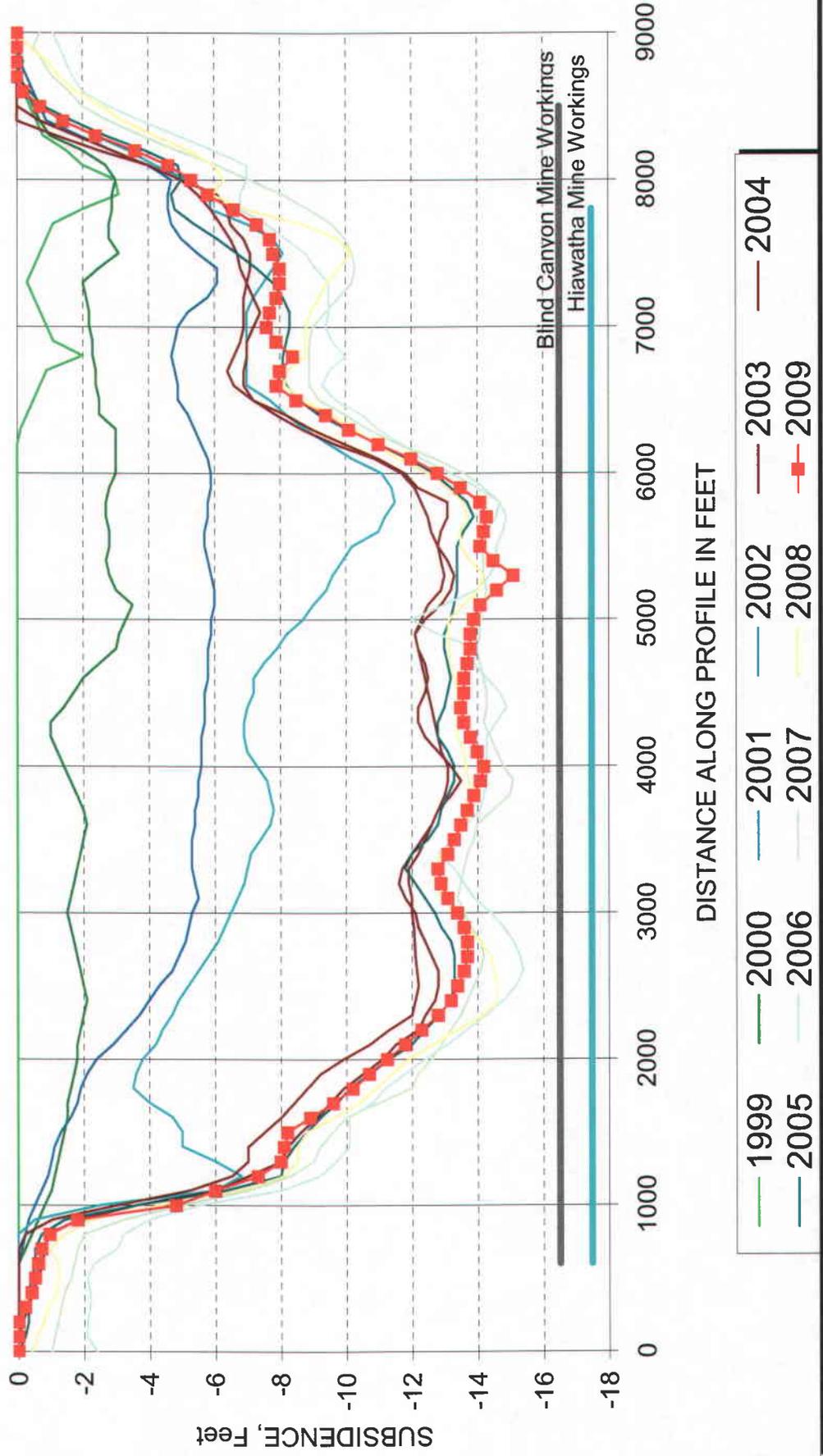


Energy West 2009 Subsidence Report

Area 25 Subsidence Profile (North Rilda Area)

West-East

Chart 2

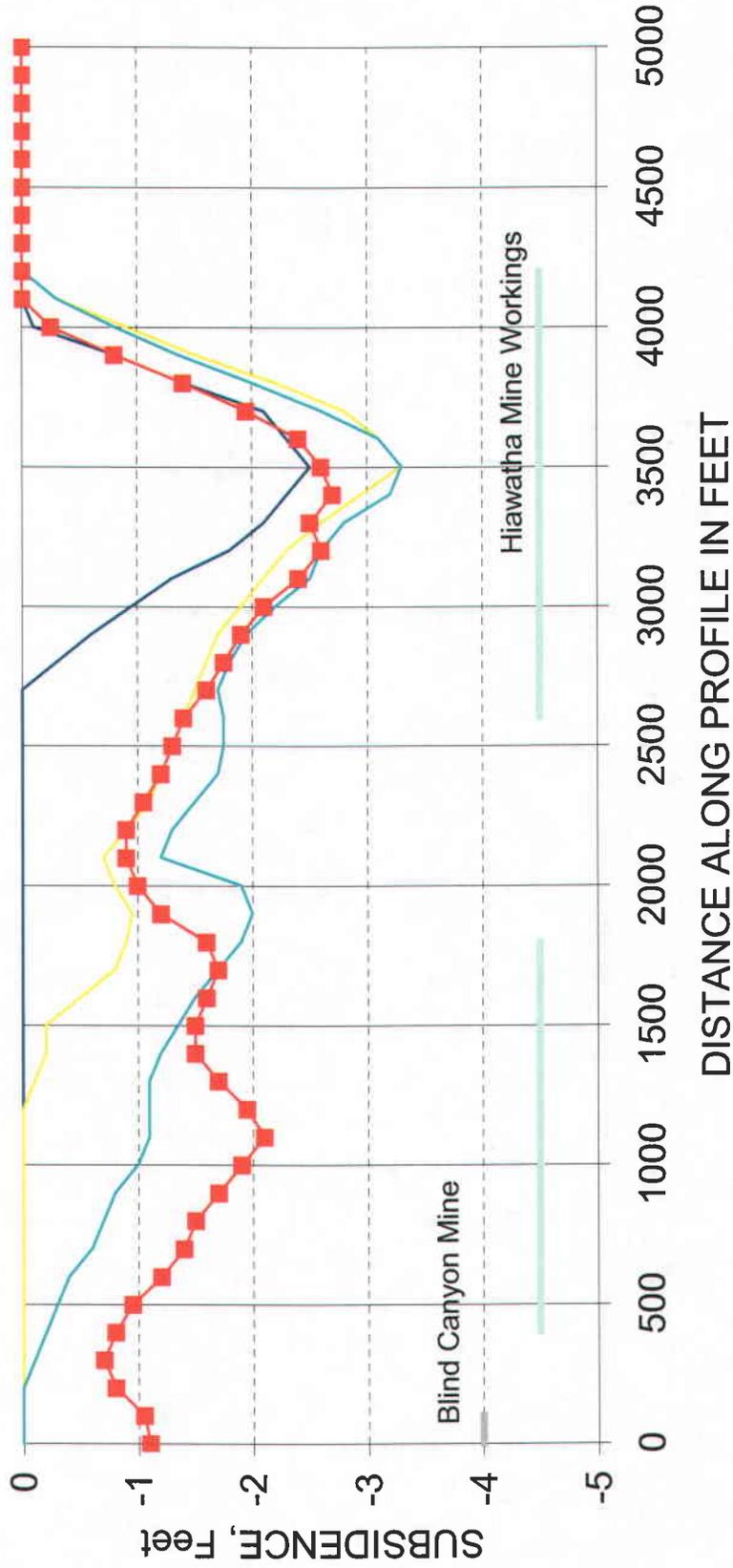


Energy West 2009 Subsidence Report

Area 27 Subsidence Profile (Mill Fork Area)

North-South

Chart 3

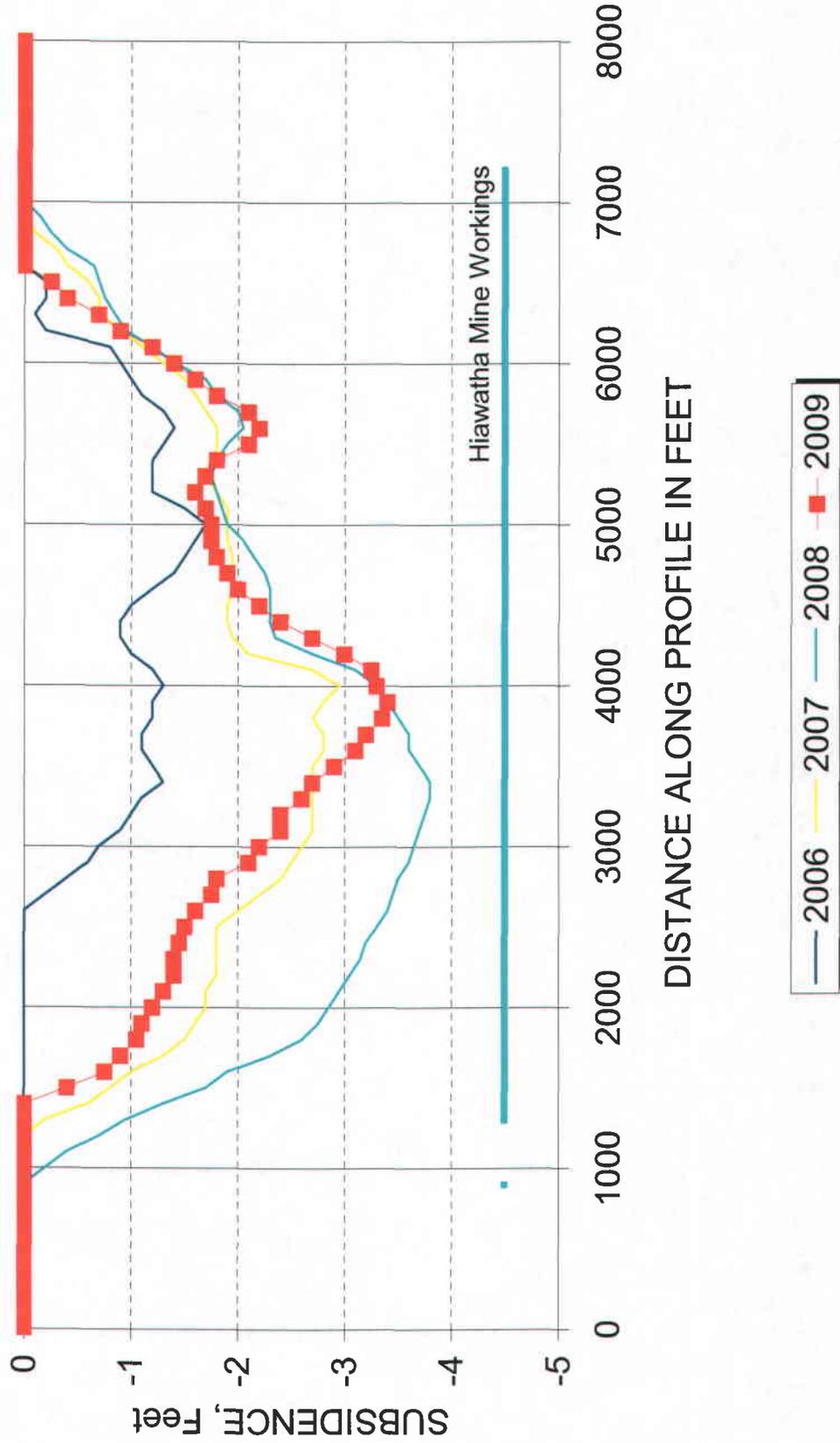


— 2006 — 2007 — 2008 — 2009 — Blind Canyon Workings

Energy West 2009 Subsidence Report Area 27 Subsidence Profile (Mill Fork Area)

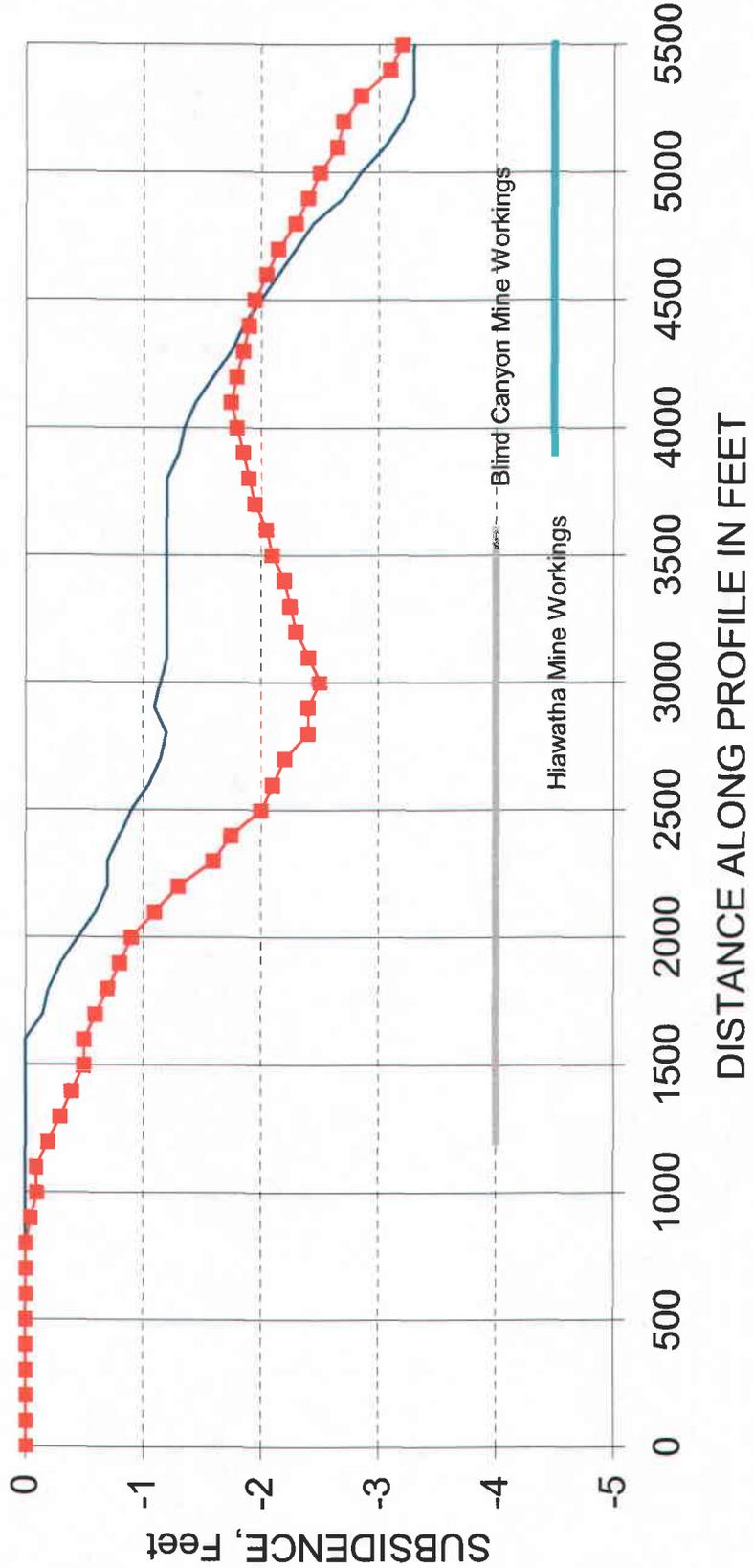
Chart 4

West-East



Energy West 2009 Subsidence Report Area 28 Subsidence Profile(Mill Fork Area) North-South

Chart 5



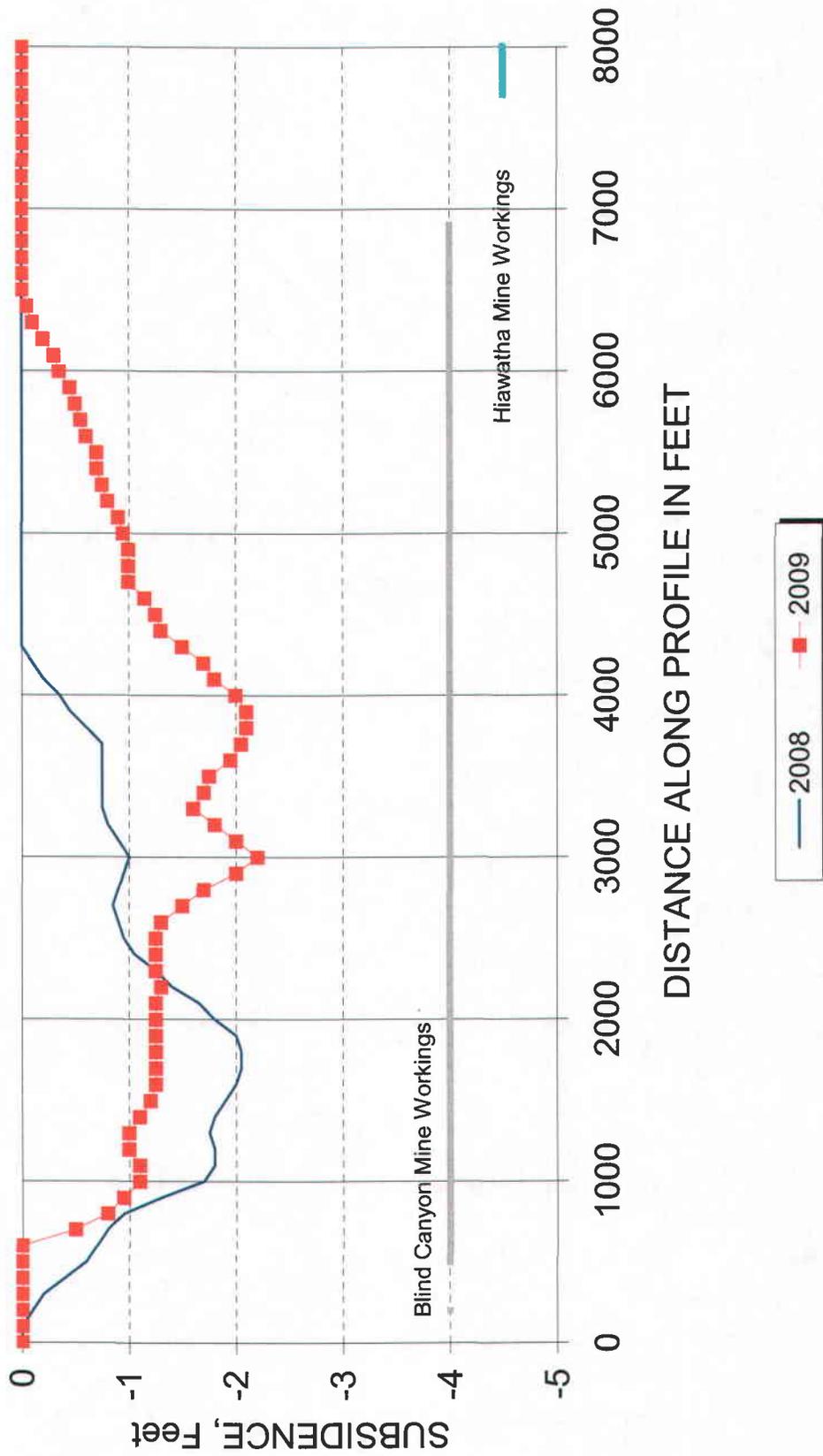
— 2008 -■- 2009

Energy West 2009 Subsidence Report

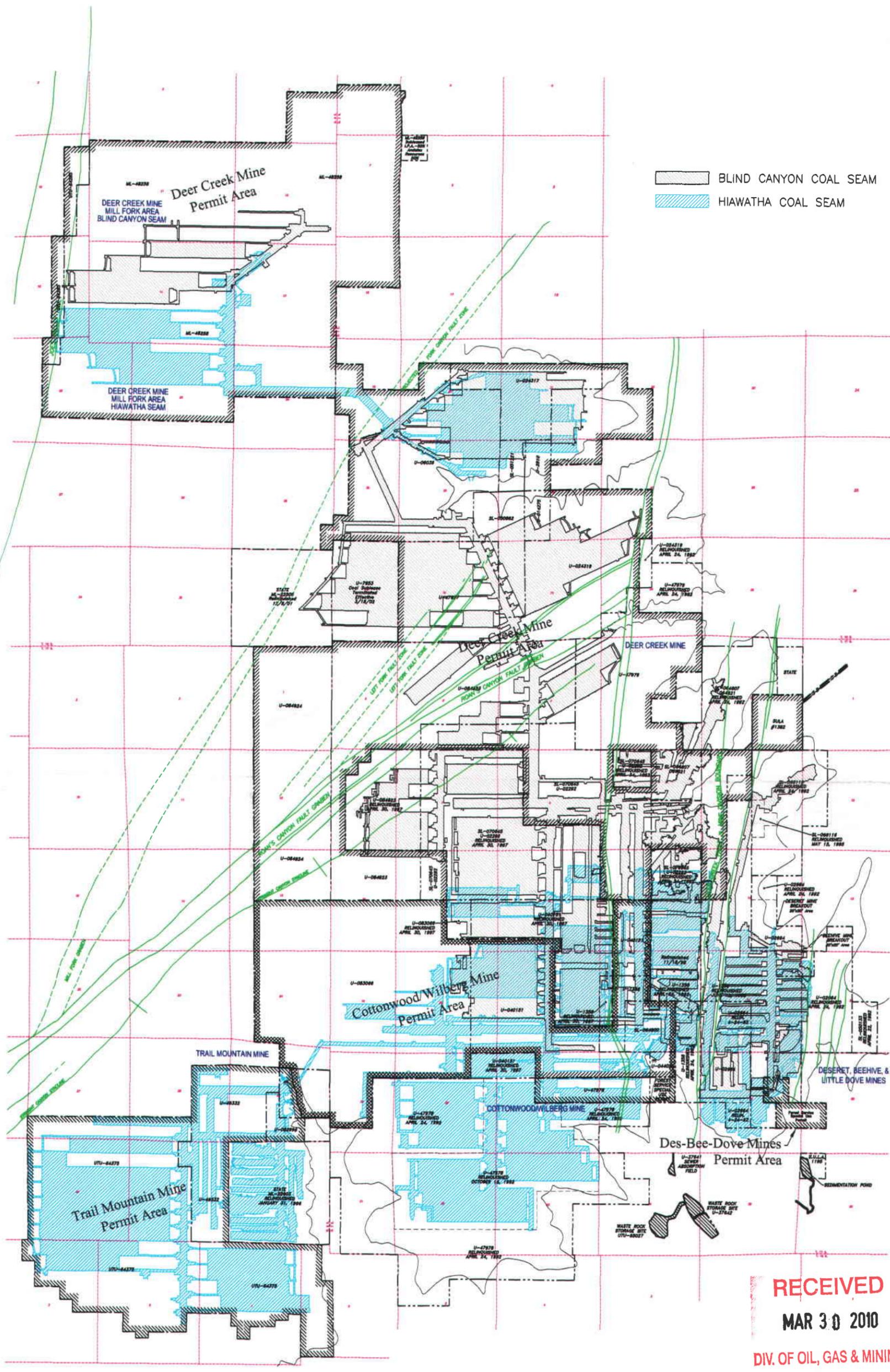
Area 28 Subsidence Profile (Mill Fork Area)

West-East

Chart 6

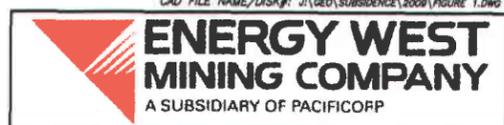


RILDA CANYON MONITORING ABOVE 5TH NORTH												
DRILL HOLE AREA												
RC1			RC2			RC3			RC4			
btm end									top end			
DATE	N	E	ELEV.	N	E	ELEV.	N	E	ELEV.	N	E	ELEV.
06/25/1998	392182.738	2093512.401	8161.66	392322.121	2092965.037	8208.760	392421.14	2092750.953	8231.12	392536.814	2092275.445	8296.77
08/12/1998	392184.166	2093512.369	8162.87	392322.947	2092965.38	8209.12	392421.687	2092751.055	8231.47	392536.82	2092275.433	8296.21
08/14/1998			8162.34			8209.27			8231.57			8296.22
10/01/1998			8162.33			8209.21			8231.51			8296.19
05/26/1999			8162.30			8209.16			8231.46			8296.18
07/06/1999			8162.47			8209.61			8231.97			8296.00
08/25/1999			8162.35			8209.50			8231.37			8296.18
06/23/2000			8162.35			8208.28			8231.66			8296.11
10/17/2000			8162.15			8209.05			8231.38			8296.16
06/05/2001			8162.38			8209.29			8231.59			8296.18
07/09/2002			8162.27			8209.23			8231.51			8296.22
05/28/2003			8161.95			8208.68			8231.08			8295.96
07/26/2004			8161.99			8208.96			8231.35			8296.14
07/22/2005			8162.38			missing			8231.52			8296.22
07/17/2006			8162.2			missing			8231.44			8296.18
07/05/2007			8162.35			missing			8231.5			8296.22
08/26/2008			8162.4			missing			8231.5			8296.08
09/21/2009			8162.36			missing			8231.54			8296.2
			8162.23			8209.042			8231.43			8296.1511



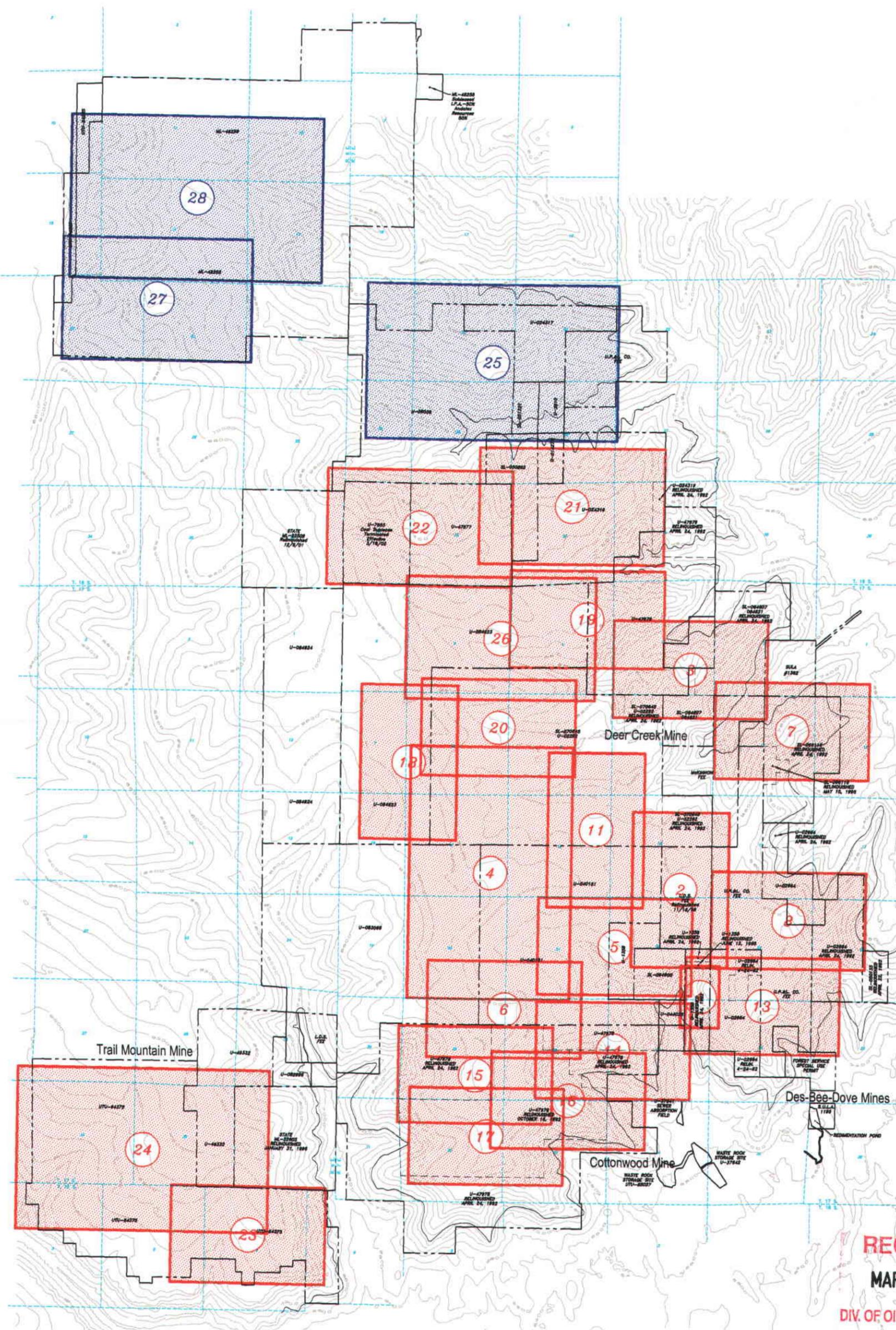
RECEIVED
MAR 30 2010
 DIV. OF OIL, GAS & MINING

CAD FILE NAME/DISK#: J:\GEO\SUBSIDENCE\2009\FIGURE 1.DWG



**EAST/TRAIL MOUNTAINS
 MINE AREAS AS OF 9/30/09**

DRAWN BY: KJL	FIGURE 1
SCALE: 1" = 1 MILE	DRAWING #:
DATE: MARCH 16, 2010	SHEET 1 OF 1 REV. _____



15

AREAS ELIMINATED FROM STUDY AS OF 2009

21

AREAS STUDIED FOR SUBSIDENCE NUMBERS KEYED TO TEXT

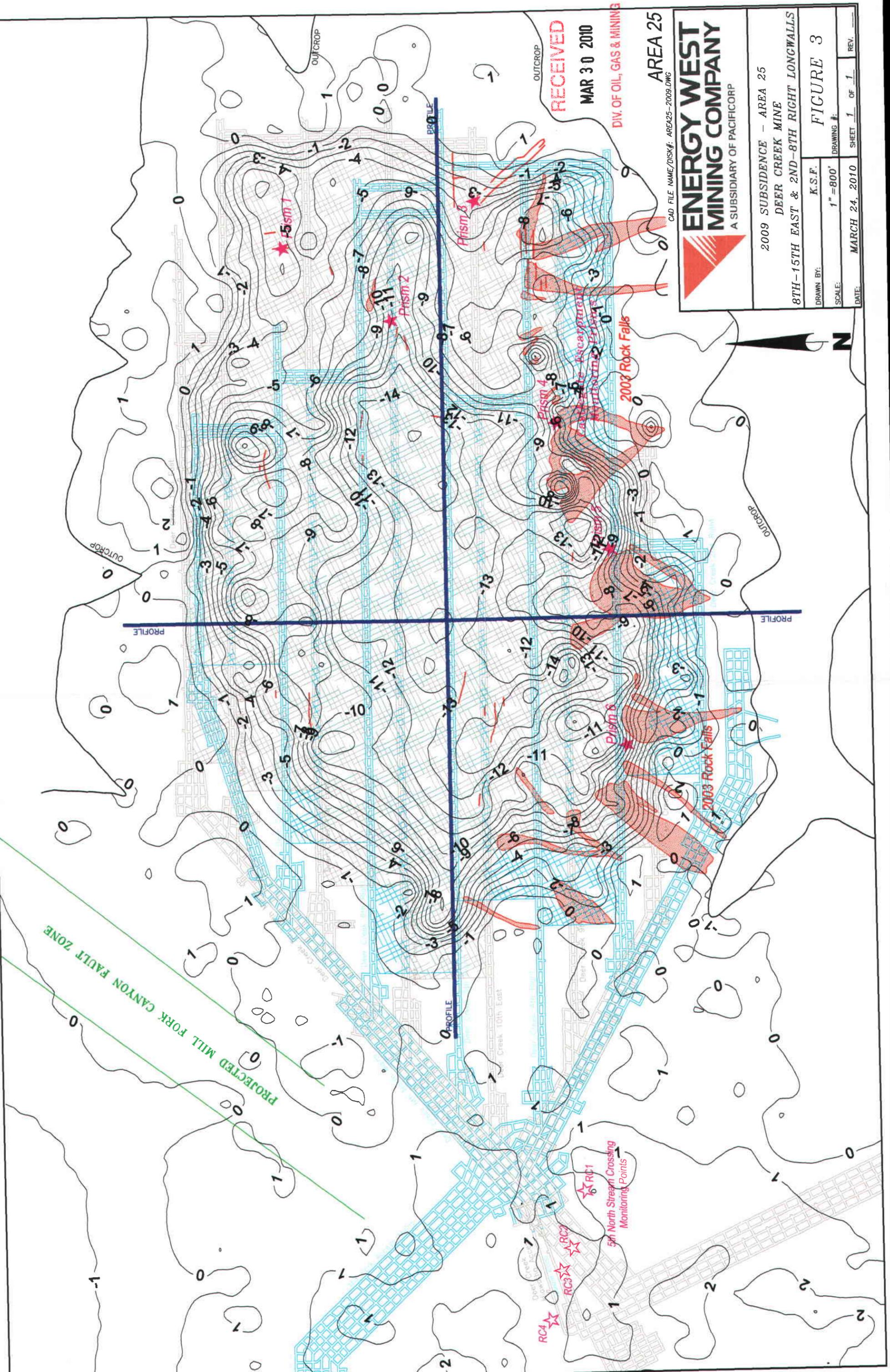
RECEIVED
MAR 30 2010
DIV. OF OIL, GAS & MINING

CAD FILE NAME/DISK#: J:\GEO\SUBSIDENCE\2009\FIGURE 2.DWG

ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

2009 SUBSIDENCE MONITORING AREAS STUDIED FOR SUBSIDENCE

DRAWN BY: K. LARSEN	FIGURE 2
SCALE: 1" = 1 MILE	DRAWING #:
DATE: MARCH 16, 2010	SHEET 1 OF 1 REV.:



RECEIVED

MAR 30 2010

DIV. OF OIL, GAS & MINING

AREA 25

CAD FILE NAME/DISK#: AREA25-2009.DWG

ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

2009 SUBSIDENCE - AREA 25

DEER CREEK MINE

8TH-15TH EAST & 2ND-8TH RIGHT LONGWALLS

FIGURE 3

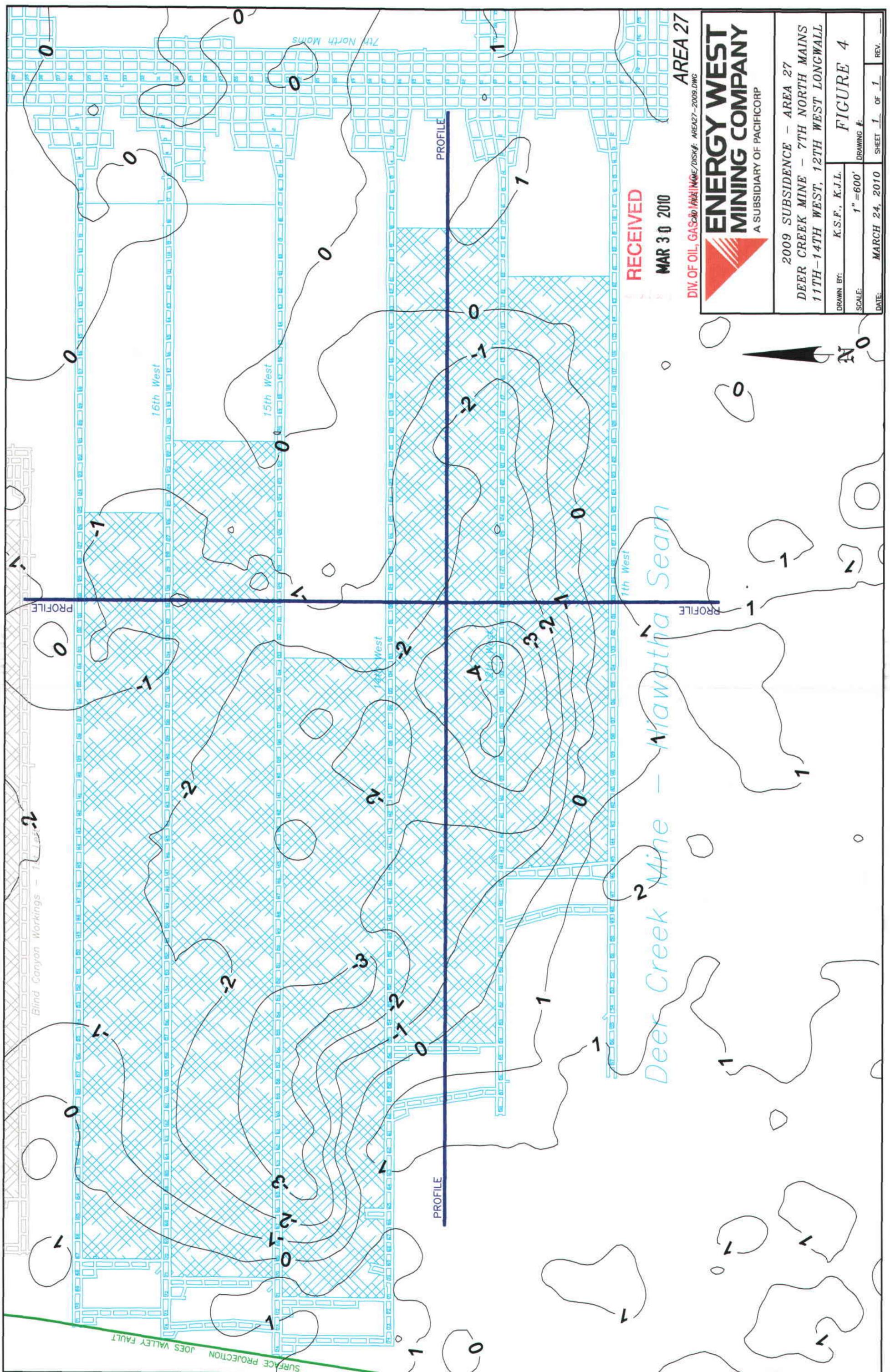
DRAWN BY: K.S.F.

SCALE: 1" = 800'

DATE: MARCH 24, 2010

SHEET 1 OF 1

REV. _____



SURFACE PROJECTION JOES VALLEY FAULT

Blind Canyon Workings - 11th West

Deer Creek Mine - Niawatha Seam

16th West

15th West

14th West

11th West

PROFILE

PROFILE

PROFILE

AREA 27

RECEIVED
MAR 30 2010

DIV. OF OIL, GAS & MINING/DISK# AREA27-2009.DWG

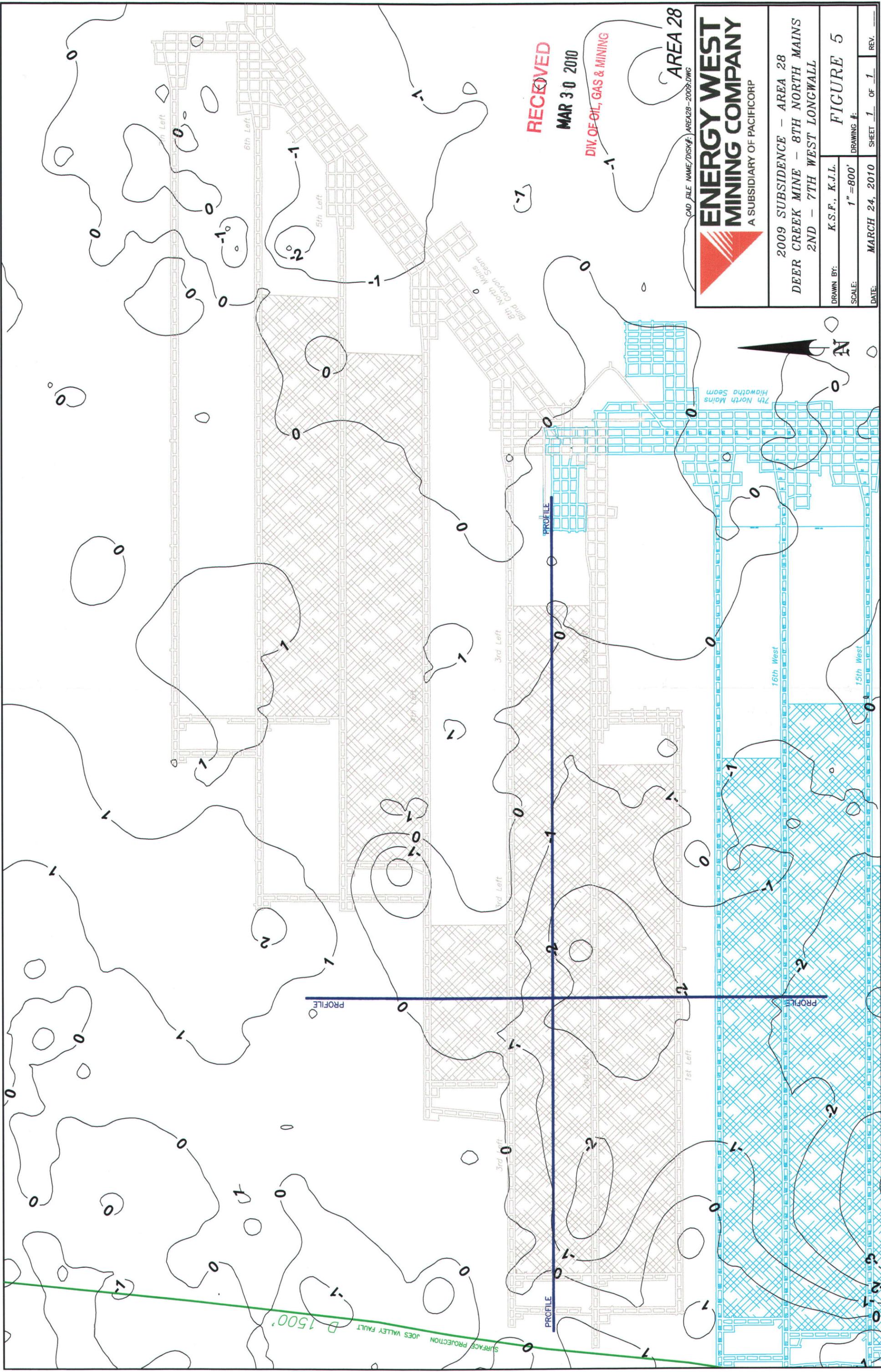


2009 SUBSIDENCE - AREA 27
DEER CREEK MINE - 7TH NORTH MAINS
11TH-14TH WEST, 12TH WEST LONGWALL

DRAWN BY: K.S.F., K.J.L.
SCALE: 1" = 600'
DRAWING #:

FIGURE 4

DATE: MARCH 24, 2010 SHEET 1 OF 1 REV.



RECEIVED
MAR 30 2010
 DIV. OF OIL, GAS & MINING

AREA 28

CAD FILE NAME/DISK#: AREA28-2009.DWG



2009 SUBSIDENCE - AREA 28
 DEER CREEK MINE - 8TH NORTH MAINS
 2ND - 7TH WEST LONGWALL

DRAWN BY:	K.S.F., K.J.L.	DRAWING #:	FIGURE 5
SCALE:	1" = 800'		
DATE:	MARCH 24, 2010	SHEET	1 OF 1
		REV.	