

# *Rice Pesticides Program 2017 Annual Monitoring Report*

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Prepared for

**California Rice Commission**

California Rice

Prepared by

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# 2017 Rice Pesticides Program Monitoring Summary

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## Background

The California Rice Commission (CRC) manages the Rice Pesticide Program (RPP) on behalf of its growers through the collection and analysis of water quality samples at historical monitoring sites. Compliance with the RPP is evaluated through the Central Valley Regional Water Quality Control Board (CVRWQCB) approved management practices as provided in Resolution R5-2010-9001 (CVRWQCB, 2010). The management practices are designed to achieve attainment of the thiobencarb Performance Goal in the agricultural drains, and the applicable water quality objective (WQO) as the secondary maximum contaminant level (MCL) in waters designated as having municipal and domestic beneficial use (MUN). Monitoring is conducted under the RPP to determine attainment of the Performance Goal and the secondary MCL WQO. A detailed history of the RPP is described in previous annual monitoring reports submitted to the CVRWQCB.

The RPP includes a multi-week regime of sampling at representative agricultural drain locations and at a site on the Sacramento River. Sampling for the RPP is based on the timing and frequency of discharge from rice fields during the peak use season for thiobencarb. The monitoring schedule was developed with consideration of the rice-growing season, analysis of historical data, environmental and analytical monitoring, and infield studies of the thiobencarb degradation curve (Division of Agricultural Sciences, University of California, 1982; Cronacchia et al., 1984). In addition, the cities of Sacramento and West Sacramento analyze samples for thiobencarb concentration in their water intake supplies during the thiobencarb use period.

## Introduction

Decades of monitoring under the RPP allows for comparison between normal water periods and drought conditions. The start of 2017 was very wet, a stark contrast to the prior four years, where drought conditions persisted. Drought conditions exacerbated the frequency and degree of exceedances of the thiobencarb Performance Goal, which had increased since 2013. Increased use of thiobencarb as a first line of defense (due to longer hold times), along with diminished flow volumes, led to higher observed concentrations of thiobencarb in some of the sampled drains during this time. While 2017 had a rainy start, detections persisted in some of the drains as flow slowed during hold periods. Repeated detections in the Colusa Basin Drain (CBD), especially at site CBD5, prompted additional upstream monitoring in 2015 and 2016. Exceedances above the Performance Goal were measured at additional sites in Glenn County in 2016, and as a result, two upstream sites were added for monitoring in 2017. This technical memorandum reviews 2017 conditions and monitoring results, and compares them to prior years' results.

## Monitoring Requirements and Performance Goals

Monitoring in accordance with the RPP requirements was conducted during the 2017 thiobencarb use season (Table 1). Planting and subsequent herbicide application occurred later than typical in 2017 due to the wet spring. This resulted in a later-than-typical sampling schedule, which started in May (rather than April), and continued through mid-July (rather than the end of June).

**Table 1. RPP Sampling Frequency, 2017**

*2017 Rice Pesticides Program Monitoring Summary*

Constituent	Units	Sample Type	Sampling Frequency		
			Weeks 1–3	Weeks 4–7	Weeks 8–10
Thiobencarb	µg/L	Grab	Weekly	Biweekly	Weekly

Note:

µg/L = microgram(s) per liter

The five RPP sites monitored in 2017 have remained consistent for the duration of the program, and are listed below.

- CBD1: Colusa Basin Drain above Knights Landing
- CBD5: Colusa Basin Drain 5 in the Colusa National Wildlife Refuge
- BS1: Butte Slough at Lower Pass Road
- SSB: Sacramento Slough Bridge near Karnak
- SR1: Sacramento River at Village Marina/Crawdads on the River

In 2017, two additional sites upstream of site CBD5 were monitored by the California Department of Pesticide Regulation (DPR), in coordination with the CRC, to provide information about the influence of Glenn County upstream areas. The sites monitored by DPR are listed below.

- GC1: DPR Monitoring Site - Norman Road at Willow Creek
- GC2: DPR Monitoring Site - Norman Road at Colusa Drain

The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) (CVRWQCB, 2016) establishes a numeric WQO for thiobencarb that is protective of the rivers' MUN beneficial use designation (i.e., 1.0 micrograms per liter [µg/L]). In addition, a Performance Goal applies to upstream agricultural drains (i.e., 1.5 µg/L). All of the monitoring sites sampled in 2017 are shown on Figure D-1.

## 2017 Monitoring Results

Thiobencarb was detected above the method detection limit (MDL) of 0.5 µg/L in 24 of the 98 samples collected during the 10-week sampling period in 2017. The majority of these detections occurred at sites on the CBD, specifically sites CBD1 (seven detections above 0.5 µg/L), GC2 (six detections above 0.5 µg/L), CBD5, and GC1 (each with five detections above 0.5 µg/L). Site BS1 had one detection, and sites SSB and SR1 had no detections above the 0.5 µg/L MDL in 2017.

2017 monitoring results were somewhat similar to 2016, with detections occurring in the CBD. As seen in 2016, detections at site CBD5 generally occurred first (in mid-May), with detections at site CBD1 occurring about a week later. The addition of sites GC1 and GC2 informed the detections in the CBD; although site GC1's results were similar to site CBD5, site GC2 had the highest, earliest detections, likely

feeding the detections in site CBD5 a week or so later. Site CBD1 had the latest detections measured, which correlates with its downstream location on the CBD.

Table 2 summarizes results of the 2017 thiobencarb sampling. Complete monitoring results are in Appendix A.

**Table 2. Summary of Detections (RPP and City Monitoring), 2017**  
*2017 Rice Pesticides Program Monitoring Summary*

Site	Site Type	Thiobencarb	
		Detections Exceeding the Basin Plan WQO/Performance Goal	Range of Detected Concentrations ( $\mu\text{g/L}$ )
<b>Intake and River Sites (Water Quality Objective 1.0 <math>\mu\text{g/L}</math>)</b>			
SRR <sup>a</sup>	Intake	0	ND
WSR <sup>b</sup>	Intake	0	ND
SR1 <sup>c</sup>	River	0	ND
<b>Total River/Intake Site Detections:</b>		<b>0</b>	<b>ND</b>
<b>Agricultural Drain Sites (Performance Goal 1.5 <math>\mu\text{g/L}</math>)</b>			
CBD5	Drain	2	ND to 1.8
BS1	Drain	1	ND to 1.8
CBD1	Drain	1	ND to 1.8
SSB	Drain	0	ND to 0.16 <sup>j</sup>
GC1	Drain	1	ND to 1.7
GC2	Drain	3	ND to 2.8
<b>Total Drain Site Detections:</b>		<b>8</b>	<b>ND to 2.8</b>

<sup>a</sup> City of Sacramento intake site (as reported by the City of Sacramento)

<sup>b</sup> City of West Sacramento intake site (as reported by the City of West Sacramento)

<sup>c</sup> RPP site – the WQO does not apply as a RPP Performance Goal for SR1. The CRC voluntarily monitors site SR1 to complement the required agricultural drain monitoring.

Notes:

ND = non-detect (i.e., below the method reporting limit). Method reporting limit for intake sites is 0.1  $\mu\text{g/L}$ , and for agricultural drains is 0.5  $\mu\text{g/L}$ .

j = U.S. Environmental Protection Agency flag – estimated value; result is between the method detection limit and the method reporting limit.

### Compliance with River and MUN WQO

All of the river and intake samples analyzed on behalf of the CRC and the Cities of Sacramento (site SRR) and West Sacramento (site WSR) were non-detect for thiobencarb in 2017. The river and intake monitoring results demonstrate attainment of the Basin Plan MUN WQO. Based on these results, the established management practices are protective of drinking water associated with the MUN beneficial use designation of the Sacramento River. These monitoring results also demonstrate success managing a prohibition of discharge program through a watershed approach.

### Compliance with the Agricultural Drain Performance Goal

Eight samples collected from the agricultural drains in 2017 had detections above the 1.5  $\mu\text{g/L}$  Performance Goal for thiobencarb: three at site GC2, two at site CBD5, and one each at sites BS1, CBD1, and GC1. The peak detection of 2.8  $\mu\text{g/L}$  occurred at site GC2 on May 30. Although the detections were lower in 2017 than in prior years, the timing and location of detections was similar to those reported in 2015 and 2016, with the majority of detections in the CBD sites.

## Special Actions in 2017

Exceedances at site CBD5 have persisted for at least three monitoring seasons. Special monitoring was performed at seven sites upstream of site CBD5 in 2015 and 2016 to investigate the influence of water released from Colusa and Glenn county fields on that site. Two upstream locations were found to have detections in 2016 (i.e., special monitoring sites Road 68 and site N). Using those results and their own internal monitoring, DPR identified two targeted upstream sites to monitor in 2017 in coordination with the CRC. These targeted sites, GC1 and GC2, were monitored for the entire 2017 monitoring season to ascertain general timing and persistence of flow with detectable levels of thiobencarb from that source area.

Table A-1 in Appendix A outlines the sample sites, dates, and laboratory results for all 2017 thiobencarb monitoring, including DPR monitoring sites GC1 and GC2. Briefly, site GC1 generally had detections lower than those at site CBD5 (although with similar or slightly later timing); indicating that the water flowing through that site is probably not the main source of thiobencarb loading to site CBD5. Monitoring results at site GC2 were the highest measured during the 2017 season, with peak detections before the higher detections at site CBD5. These peak detections persisted through mid-to-late May, then tapered off. It is likely that much of the thiobencarb loading to the CBD is coming from upstream of site CBD5.

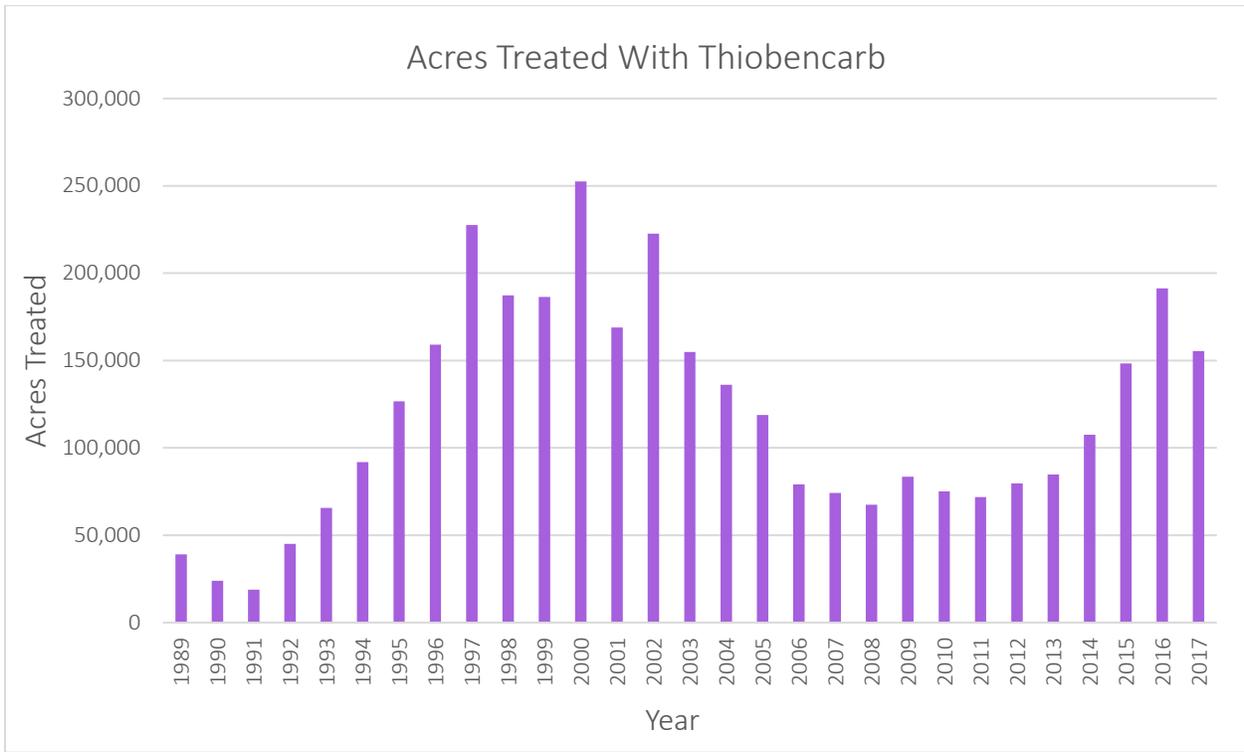
## Acres Treated

The DPR reports acres treated with thiobencarb in their annual Pesticide Use Report (PUR), which is current to 2015.<sup>1</sup> The data are audited and error checked before the PUR is finalized. The CRC receives the current year pesticide use data in December, which are considered preliminary. However, there has not been much historical variance between the current and final rice pesticide use data. The pesticide use results in all RPP annual monitoring reports are considered preliminary, based on initial data provided by the county agricultural commissioners (CACs) to DPR. In 2017, the rice acreage treated with thiobencarb was reported to be 155,430 acres, which is similar to the treated acreage from 2015 (i.e., 148,289 acres). This is less than the 2016 treated acreage of 191,414 acres, which was the highest reported since 2002 (Figure 1).

Malathion, a pesticide previously monitored under the RPP, was used on a minimal number of acres in 2017. Usage was limited to Colusa and Glenn Counties, and represented a small fraction of rice acres at 511 acres treated or 0.1 percent of the planted acres (as reported by the CACs). Malathion use has been minimal since 2009, with an uptick in use in 2015 (i.e., 2,589 acres treated) attributable to an armyworm outbreak. Based on discussion with CVRWQCB staff, the CRC did not monitor malathion during 2017.

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<sup>1</sup> Pesticide use reports as published by year on the DPR website. [http://www.cdpr.ca.gov/docs/pur/annual\\_summaries.htm](http://www.cdpr.ca.gov/docs/pur/annual_summaries.htm). Accessed September 28, 2017.



**Figure 1. Thiobencarb Acres Treated, 1989 to 2017**  
 (Source: DPR 1989-2015; DPR estimate for 2016-2017)

## Analysis/Discussion

The RPP includes an aggressive regime of surface water quality sampling designed to address a watershed approach to compliance. Although the ultimate goal of zero detections at the city intake sites was met, the routine sampling of the RPP detected exceedances of the Performance Goal in agricultural drains.

Based on the information available to the CRC at this time, it is suspected that exceedances of the Performance Goal could be a result of the following factors, either independently or concurrently (DPR et al., 1998; DPR, 2010):

- Noncompliance with water-holding requirements
- Thiobencarb transport via seepage, drift, and/or tailwater discharge
- Use in compliance with required water holds, but in excess of the assimilative capacity of the water body during low flows

Each of these factors is discussed in more detail below.

### Noncompliance with Water-Holding Requirements

One grower and Colusa County staff provided the following information:

*On a Saturday morning, one grower discovered a pilot made several passes at least 150 feet into his field while applying Bolero UltraMax. The neighboring fields are separated by a 10-foot road, which means accurate aerial applications are possible. The grower’s field is just north of the CBD5 site, and water was flowing off the field to establish the rice stand. He immediately boarded the field, and covered the box with plastic and soil once he discovered his field had been inadvertently*

*treated with Bolero UltraMax. The grower contacted the pilot and suggested he own up to the mistake and turn himself in. The owner of the aerial application company reported the mistake to the Colusa CAC office to avoid the grower filing a claim. The result should be a drift violation.*

Colusa County staff provided the following information:

*A reputable aerial applicator applied thiobencarb to the wrong field. The application took place at 7:30 AM and the grower noticed it at 2:30 PM. The grower kept water on the property through his drain system.*

*On May 22, a grower turned in his neighbor for letting water off a posted thiobencarb field. The grower called the county, provided photos, and stated that he did not care if the county used his name when contacting the neighbor. The field is close to the 2047 drain, which is just north of CBD5. The monitoring results were 1.8 ppb on Tuesday, May 23, and again on Tuesday, May 30.*

Yolo County staff provided the following information:

*Received a call from Yolo County that they found an Abolish 8EC treated field with water running out of it. The field was five days into the waterhold, and the operator told the irrigator to add water. Too much water was added, so instead of shutting off the water, the top boards were pulled in the lower rice check.*

At the time of this writing, the CACs are coordinating with DPR on any potential enforcement actions against specific growers that are believed to have violated label and water-hold requirements.

Another contributing factor to early water releases have been high wind conditions occurring during the hold time (occurring most recently in 2013); these may have been a factor in early-season detections in 2017. A higher-than-normal wind event was noted early in the monitoring season (Figure B-4). Meeting water holding requirements can be challenging during early-season high wind events because the rice roots are not set enough to prevent water movement within the field, potentially breaching a check box or levee, and possibly causing seedlings to uproot. Wind speeds during the thiobencarb use season are shown in Appendix B.

### Thiobencarb Transport

Several mechanisms of transport could cause or contribute to discharges of thiobencarb, such as seepage, drift, and tailwater discharge. Water quality management practices are adopted to prevent adverse impacts from each of these mechanisms of transport. Mandatory management practices are in place to address each of these mechanisms, and include the following:

- Mandatory grower education
- Water holds
- Pesticide use compliance inspections and enforcement
- Water quality sampling

Seepage is addressed through proper maintenance of levees and berms, coupled with CAC seepage inspections and enforcement actions. Drift is addressed through label requirements and additional permit restrictions imposed on aerial applications. Tailwater discharge is addressed through mandatory water-hold requirements, coupled with the CAC enforcement through inspections. The CACs implement water-hold and seepage inspections, with the CRC funding additional off-hours inspections on weekends and holidays during application season. The effectiveness of these management practices is wholly dependent upon implementation by individual rice farmers.

## Influence of Flow

Although 2017 had a wet spring, the drought conditions experienced in the last number of seasons impacted rice culture. Water availability was restricted during the seasons of drought, and there were restrictions on re-flooding. During these restrictions, thiobencarb became a popular herbicide of choice because of its longer hold requirement, which complements weed control programs in areas where irrigation districts control the availability of water and limit releases from rice fields. Thiobencarb use acreage spiked during the drought, with treated acreage in 2016 at its highest level since 2002 (Figure 1 and Table A-2). During the last three monitoring seasons, thiobencarb exceedances increased as treated acreage increased. This was especially apparent at the sites on the CBD, where flow conditions were impacted during the drought.

Thiobencarb usage remained high in 2017 (close to 2015 levels), and the wet spring created operational challenges at the beginning of the growing season (including delays in planting resulting in later herbicide application). Detections in the agricultural drains were recorded as water holds reduced the flow through the drains, especially the CBD. The reduction in baseline flow decreases the dilution effect of thiobencarb after release from the fields, causing higher detections during the weeks of heaviest thiobencarb use. Although the effect is seasonal, detections over the past number of years have exceeded the thiobencarb Performance Goal, indicating that use may have surpassed the assimilative capacity of the system during these low-flow conditions.

## Conclusions and Recommendations

The CRC is considering the following alternatives in response to repeated exceedances of the thiobencarb agricultural drain Performance Goal.

### **Maintain Educational Outreach Efforts**

Educational outreach efforts are ongoing through the annual mandatory stakeholder meetings and e-communications that are distributed to rice growers throughout the season. In 2017, the CRC was also invited to speak at several grower meetings, and the CACs provided additional outreach on local management practices.

### **Increase Inspection Activities per DPR Staff Outreach**

Increasing inspection activities would require additional consultation with the DPR Enforcement Branch to evaluate appropriate inspection levels. The CAC's surveillance funding is specifically for off-hours, weekend, and holiday inspections. Possible coordination between the CRC and DPR on programs such as the Pesticide Regulatory Activities Monthly Report, which compiles a summary of statewide and individual county enforcement workload activities, may provide value.

### **Implement Use Limitations Resulting from Noncompliance**

The CRC will consult further with the DPR's Enforcement Branch to support permit restrictions for individuals who repeatedly do not comply with thiobencarb pesticide use requirements. The CRC Board of Directors supports the CACs in either revoking or not issuing thiobencarb permits to repeat offenders. Further, the CRC supports limiting use in targeted areas that drain to site CBD5, with a possible grounding of the liquid formulation in a regional area.

### **Propose Acreage Limitations**

The CRC supports voluntary acreage reductions by the registrant within current manufacturing and distribution limitations.

The CRC recognizes Performance Goal exceedances in the drains, and notes that the secondary MCL was not in violation. In fact, the lack of detections at river and intake sites demonstrate the success of established management practices that protect drinking water quality, and demonstrate the success of managing a prohibition of discharge program through a watershed approach.

## References

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Appendix A  
2017 Thiobencarb Monitoring Results

Table A-1. Complete 2017 Thiobencarb Monitoring Results  
 2017 Rice Pesticides Program Monitoring Summary

Sample Dates	Rice Pesticides Program Thiobencarb Monitoring Results					DPR Extra Monitoring Site Results		Sacramento and West Sacramento Thiobencarb Monitoring Results		
	Agricultural Drain Monitoring Sites Method Detection Limit <0.50 µg/L (ppb); EPA Method 507							Sites Reported Less Than 0.1 µg/L (ppb); EPA Method 8207C		SRR Intake Percent at Sacramento River
	CBD5	BS1	CBD1	SSB	SR1	GC1	GC2	WSR	SSR	
3-May-17	-	-	-	-	-	-	-	ND	ND	98.2
9-May-17	ND	ND	ND	ND	ND	ND	ND	-	-	-
10-May-17	-	-	-	-	-	-	-	ND	ND	78.4
16-May-17	1.1/1.2 (V/NCL)	ND	ND	ND	ND	0.67	2.5	-	-	-
17-May-17	-	-	-	-	-	-	-	ND	ND	70.6
18-May-17	-	-	-	-	-	-	-	ND	ND	65.9
23-May-17	1.8	1.8	ND	ND	ND	1.2	2.7	ND	ND	56.9
24-May-17	-	-	-	-	-	-	-	ND	ND	54.5
25-May-17	-	-	-	-	-	-	-	ND	ND	56.2
29-May-17	-	-	-	-	-	-	-	ND	ND	64.5
30-May-17	1.8	ND/ND (V/NCL)	1.4	ND	ND	1.7	2.8	ND	ND	67.0
31-May-17	-	-	-	-	-	-	-	ND	ND	63.4
1-June-17	1.5	ND	1.8	ND	ND	1.2	1.4	ND	ND	64.7
5-June-17	-	-	-	-	-	-	-	ND	*	NA
6-June-17	1.5	ND	1.1	ND	ND/ND (V/NCL)	0.66	0.69	ND	ND	54.7
7-June-17	-	-	-	-	-	-	-	ND	ND	56.4
8-June-17	ND	ND	0.94	ND	ND	ND	0.51	ND	ND	53.4
13-June-17	0.39j	0.38j	0.50/0.45j (V/NCL)	0.16j	ND	0.34j	0.28j	ND	**	77.2

**Table A-1. Complete 2017 Thiobencarb Monitoring Results**  
*2017 Rice Pesticides Program Monitoring Summary*

Sample Dates	Rice Pesticides Program Thiobencarb Monitoring Results					DPR Extra Monitoring Site Results		Sacramento and West Sacramento Thiobencarb Monitoring Results		
	Agricultural Drain Monitoring Sites Method Detection Limit <0.50 µg/L (ppb); EPA Method 507					GC1	GC2	Sites Reported Less Than 0.1 µg/L (ppb); EPA Method 8207C		SRR Intake Percent at Sacramento River
	CBD5	BS1	CBD1	SSB	SR1			WSR	SSR	
14-June-17	-	-	-	-	-	-	-	ND	ND	62.6
15-June-17	0.25j	0.29j	0.64	ND	ND	0.27j	0.24j	ND	ND	62.6
20-June-17	0.32j	ND	1.1	ND	ND	0.20j	0.21j	-	-	-
21-June-17	-	-	-	-	-	-	-	ND	ND	88.9
22-June-17	0.26j	ND	0.98	ND	ND	0.27j	0.22j	ND	ND	89.9
27-June-17	0.22j	ND	0.46j	ND/ND (V/NCL)	ND	0.19j	0.16j	-	-	-
28-June-17	-	-	-	-	-	-	-	ND	ND	87.8
29-June-17	-	-	-	-	-	-	-	ND	ND	86.5
3-July-17	-	-	-	-	-	-	-	ND	ND	80.2
5-July-17	0.17j	ND	0.18j	ND	ND	ND	0.17j	-	-	-
11-July-17	ND	ND	ND	ND	ND	ND	ND	-	-	-

Table A-1. Complete 2017 Thiobencarb Monitoring Results

2017 Rice Pesticides Program Monitoring Summary

Sample Dates	Rice Pesticides Program Thiobencarb Monitoring Results					DPR Extra Monitoring Site Results		Sacramento and West Sacramento Thiobencarb Monitoring Results		
	Agricultural Drain Monitoring Sites Method Detection Limit <0.50 µg/L (ppb); EPA Method 507							Sites Reported Less Than 0.1 µg/L (ppb); EPA Method 8207C		SRR Intake Percent at Sacramento River
	CBD5	BS1	CBD1	SSB	SR1	GC1	GC2	WSR	SSR	

## Notes:

Concentrations reported in µg/L (ppb).

Agricultural drain Performance Goal for thiobencarb is 1.5 µg/L.

- = not applicable

\* = no sample taken

\*\* = not available

NCL = North Coast Labs

V = Valent (analyzed at NCL)

µg/L = microgram(s) per liter

EPA = U.S. Environmental Protection Agency

ND = not detected above laboratory reporting limits

ppb = part(s) per billion

## Monitoring Site Descriptions:

CBD5 = Colusa Basin Drain within the Colusa National Wildlife Refuge south of Highway 20

BS1 = Butte Slough on Lower Pass Road northeast of Meridian

CBD1 = Colusa Basin Drain at Road 99E and near Road 108 west of Knights Landing

SSB = Sacramento Slough downstream of the Karnack pumps

SR1 = Sacramento River at the Village Marina on Garden Highway

WSR = City of West Sacramento Intake at Bryte Bend

SSR = City of Sacramento at Sacramento River Intake

GC1 = DPR Monitoring Site - Norman Road at Willow Creek

GC2 = DPR Monitoring Site - Norman Road at Colusa Drain

**Table A-2. City Intake Detections in Comparison to Performance Goal Exceedances 2003-2016**

*2017 Rice Pesticides Program Monitoring Summary*

Sample Year	Intake and River Site Detections (Date/Result, in µg/L)			Agricultural Drain Site Exceedances (Date/Result, in µg/L)	Treated Acres	Planted Acres
	WSR	SRR	SR1	Performance Goal Exceedances		
2003	2-June/0.11 16-June/0.16 19-June/0.13	ND	ND	12-June/1.7 CBD1 17-June/2.3 CBD1	154,928	507,000
2004	ND	ND	ND	4-May/3.6 CBD5 27-May/1.6 CBD1	136,132	590,000
2005 <sup>a</sup>	13-June/0.11	1-June/<0.10	31-May/0.04 2-June/0.03 7-June/0.04 9-June/0.04 14-June/0.07 21-June/0.05	No exceedances	118,786	526,000
2006	14-June/0.16	9-June/<0.10 14-June/0.16	6-June/0.06 8-June/0.17 13-June/0.12 15-June/0.06 20-June/0.03 27-June/0.02	No exceedances	79,109	523,000
2007	23-May/0.19	ND	27-May/0.13	No exceedances	74,251	533,000
2008	15-May/0.31 29-May/0.16	15-May/0.12	22-May/0.62	22-May/1.8 CBD1 27-May/1.99 BS1	67,483	517,000
2009	21-May/0.11 25-May/0.68 28-May/0.22	15-May/0.29 28-May/0.18	25-May/0.31 28-May/0.27	19-May/1.81 CBD1 26-May/1.54 (Valent), 1.84 (EMA) CBD1 28-May/1.75 CBD1	72,660	556,000
2010	ND	ND	ND	8-June/1.58 (Valent), 1.8 (EMA) CBD1	75,172	553,000
2011	1-June/0.12	ND	ND	No exceedances	71,824	580,000
2012	ND	ND	ND	No exceedances	78,478	556,000

2013	20-May/0.16	ND	21-May/0.11 23-May/0.05 30-May/0.11	21-May/3.97 CBD5 21-May/1.72 CBD1 23-May/1.77 CBD1	84,533	556,000
2014	ND	ND	27-May/0.06 29-May/0.04 3-June/0.05	29-May/3.8 CBD5 3-June/2.2 CBD5 24-June/1.7 CBD5	107,525	431,000
2015	27-May/0.1	ND	ND	19-May/1.89 CBD5 21-May/5.25 CBD5 26-May/2.41 CBD5 26-May/1.53 CBD1 28-May/1.94 CBD5 2-June/1.56 CBD5	144,552 <sup>b</sup>	452,824
2016	1-Jun/0.1 2-Jun/0.13	1-Jun/0.12 2-Jun/0.11	ND	17-May/1.9 CBD5 24-May/11 CBD5 24-May/3.2 CBD1 26-May/2.2 CBD5 26-May/2.8 CBD1 7-Jun/1.7 CBD1	191,414 <sup>b</sup>	559,582
2017	ND	ND	ND	16-May/2.5 GC2 23-May/1.8 CBD5 23-May/1.8 BS1 23-May/2.7 GC2 30-May/1.8 CBD5 30-May/1.7 GC1 30-May/2.8 GC2 1-June/1.8 CBD1	155,430 <sup>b</sup>	503,964

<sup>a</sup> Storm event monitoring at Reclamation District 1000 for the Natomas Mutual Central Water District, June 11–13 and 18, 2005

<sup>b</sup> Preliminary acreage from DPR

Notes:

µg/L = microgram(s) per liter

ND = Non-detect at the lab-specific RL. RLs for each lab are reported by year below:

2003: Valent's RL = 0.5 µg/L, APPL's RL = 0.5 µg/L

2004, 2006, 2007, 2008, 2009: Valent's RL = 0.5 µg/L, EMA's RL = 0.5 µg/L

2005: Valent's RL = 0.5 µg/L, APPL's RL = 0.1 µg/L; on May 3 RL = 0.5 µg/

2017 RICE PESTICIDES PROGRAM MONITORING SUMMARY

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2010: Valent's RL = 0.5 µg/L, McCampbell's RL = 0.5 µg/L, CLS's RL = 0.5 µg/L

2011: Valent's RL = 0.5 µg/L, CLS's RL = 0.5 µg/L

2012, 2013, 2014, 2015: Valent's RL = 0.5 µg/L, CLS's RL = 0.15 µg/L

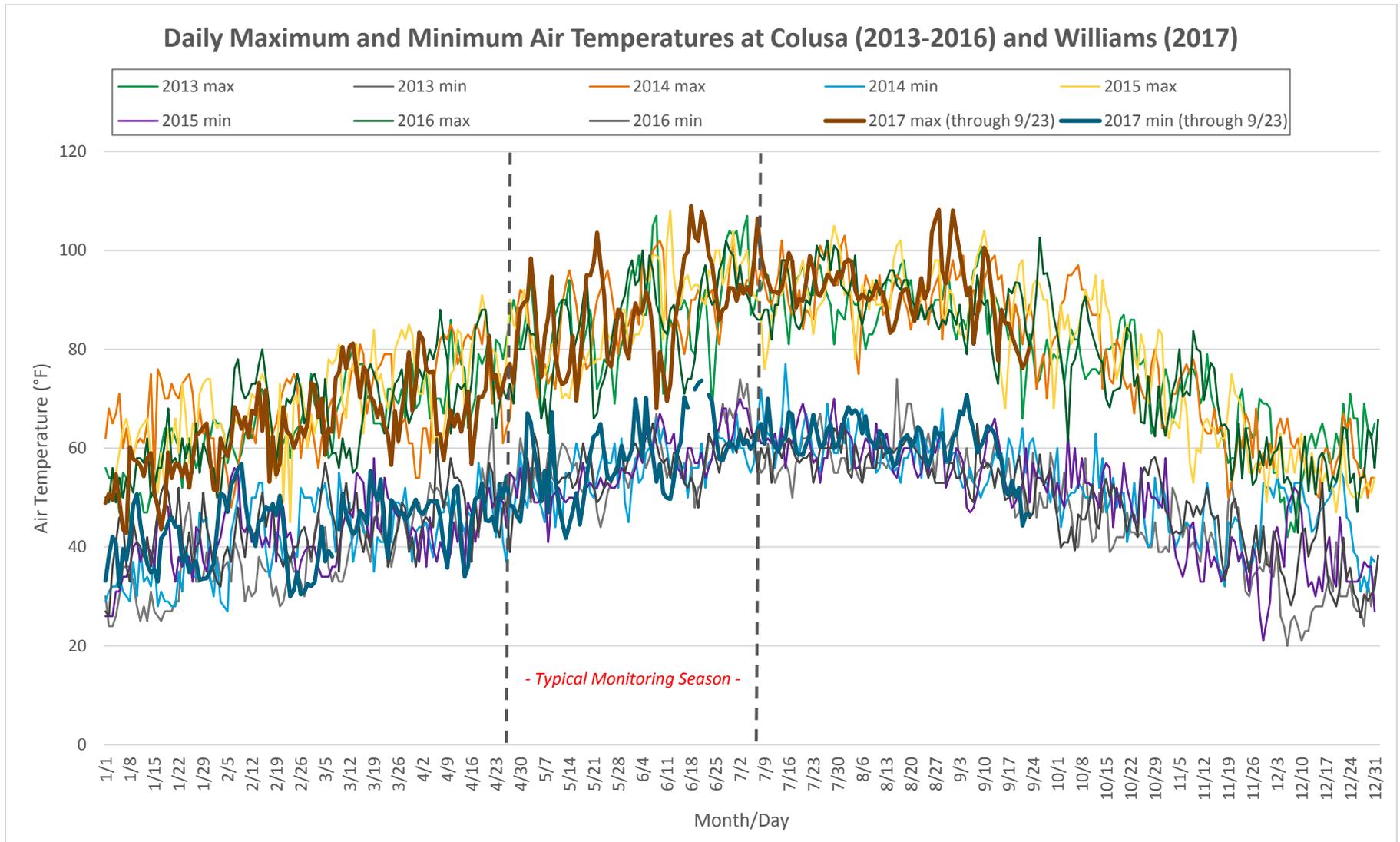
2016, 2017: North Coast's RL = 0.5 µg/L

RLs at WSR and SRR = 0.1 µg/L; 2014 Test America's RL = 0.48 µg/L

RL = reporting limit

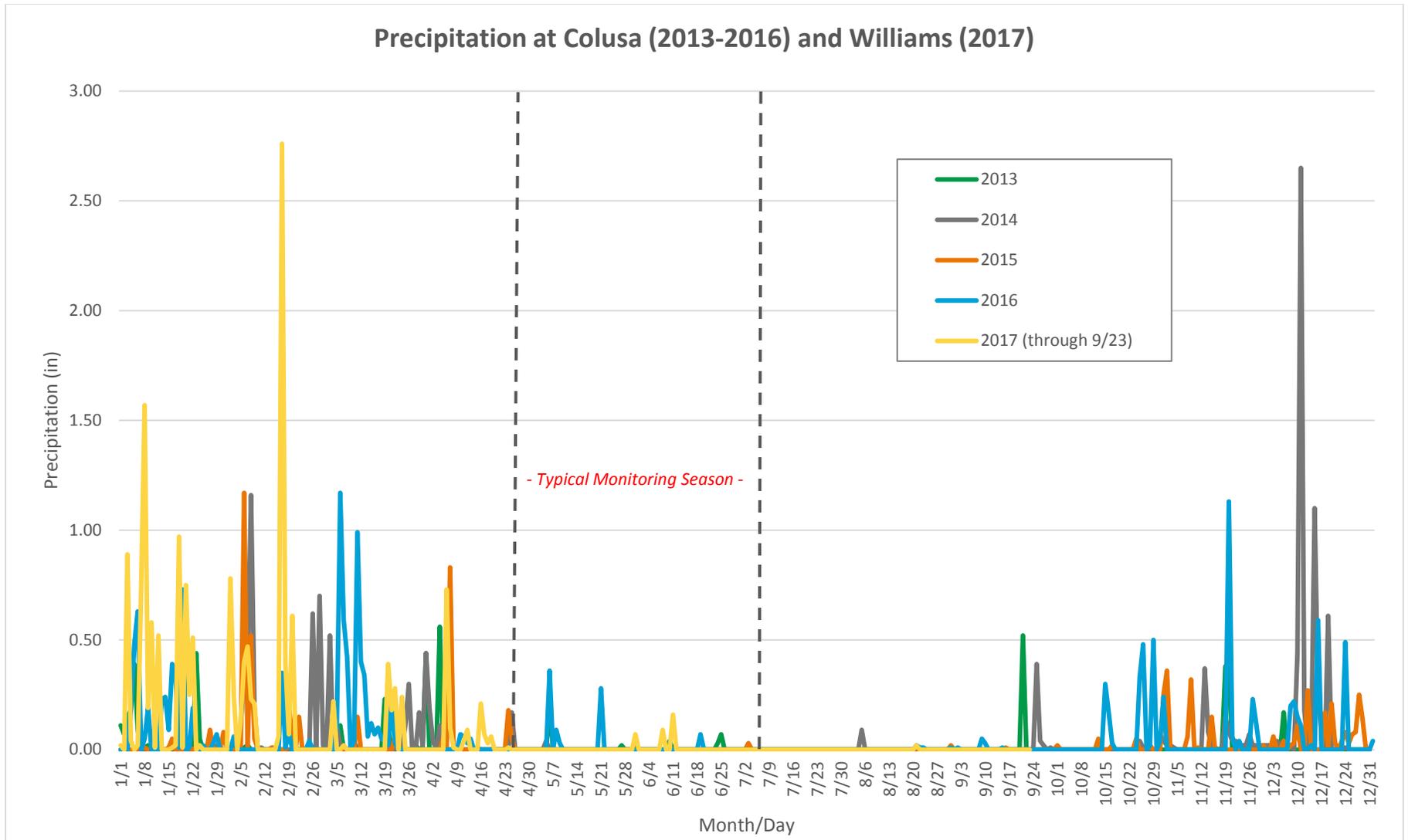
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Appendix B  
Weather and Flow Data  
for 2013–2017



**Figure B-1. Daily Maximum and Minimum Air Temperatures, 2013–2017**

*\*CIMIS Station at Colusa (32) decommissioned on August 12, 2016. Replaced by Williams Station (250) on the same day.*



**Figure B-2. Precipitation at Colusa, 2013–2017**

*\*CIMIS Station at Colusa (32) decommissioned on August 12, 2016. Replaced by Williams Station (250) on the same day.*

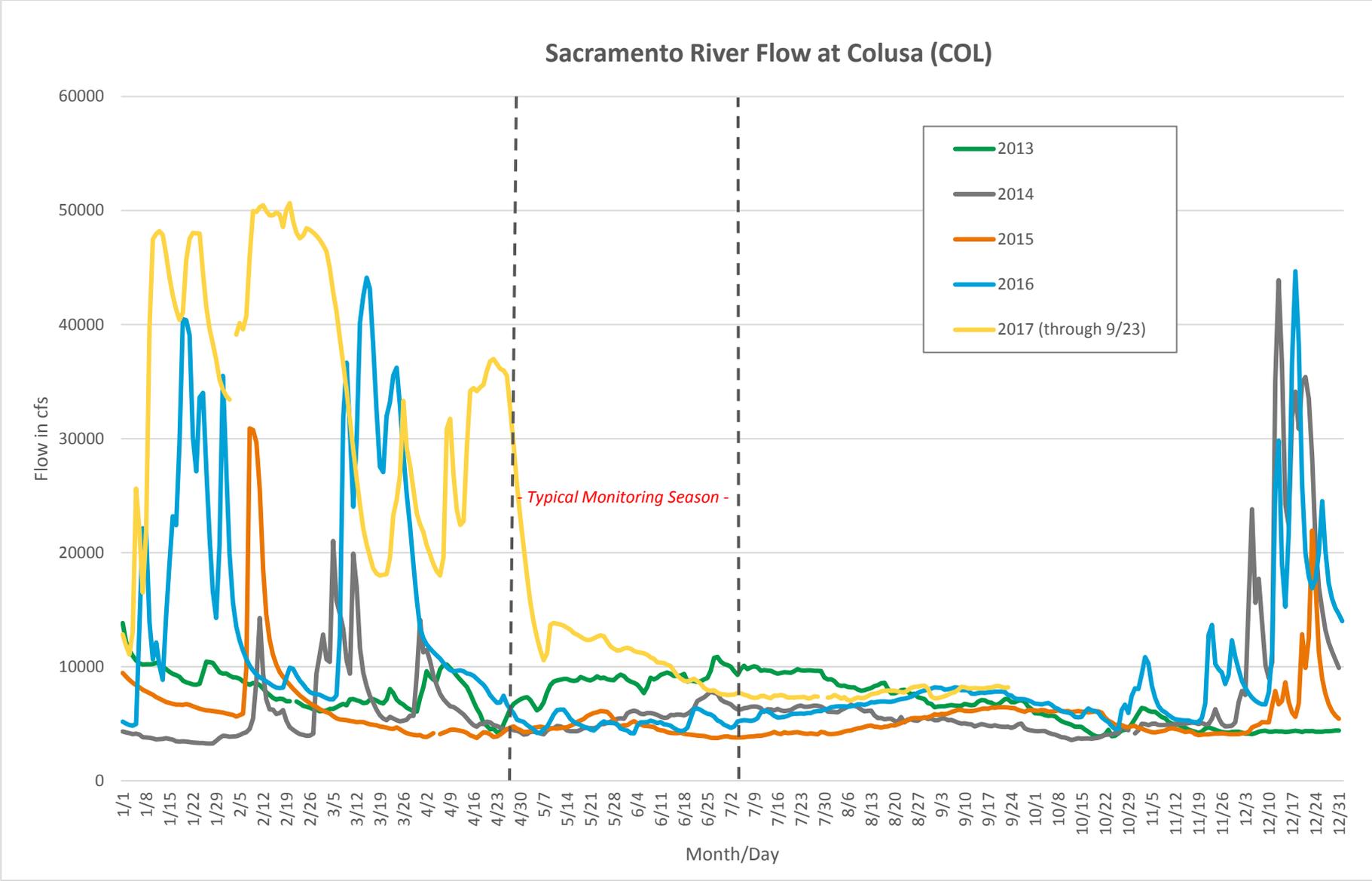
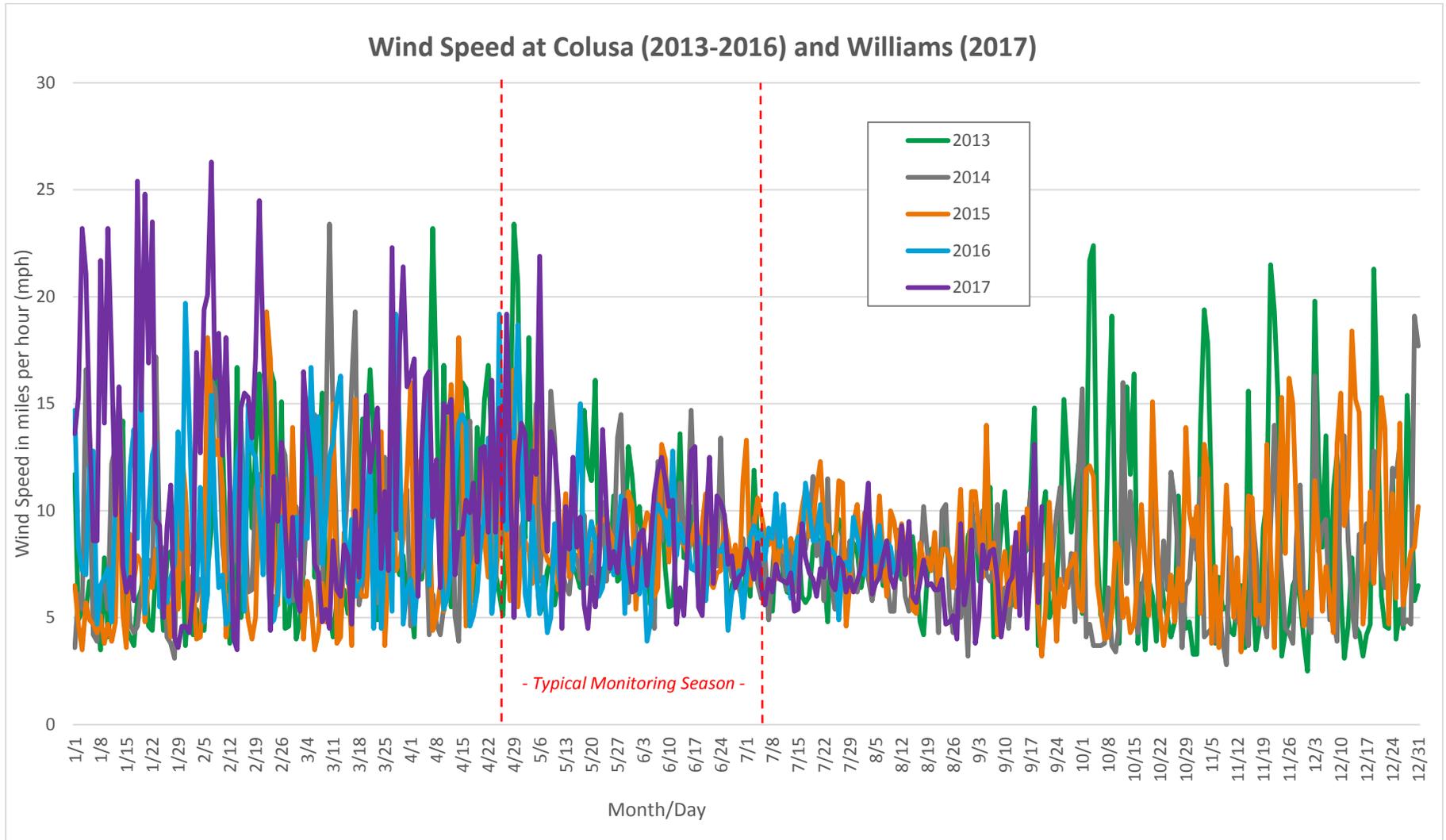


Figure B-3. Flow in the Sacramento River at Colusa (COL), 2013–2017



**Figure B-4. Wind Speed at Colusa, 2013–2016 and Williams 2017**  
*\*CIMIS Station at Colusa (32) decommissioned on August 12, 2016. Replaced by Williams Station (250) on the same day.*

Appendix C  
Management Practice  
Inspections Narrative

# Management Practice Inspections Narrative

## Management Practice Inspections

Management practices are a key component of the rice water quality programs. During the early phases of the Rice Pesticide Program (RPP), management practices were developed to increase efficacy and ultimately to protect water quality. The cornerstone of rice management practices is a thorough understanding of the rice calendar, including the application methods and timing of thiobencarb use, which is specific to the early part of the rice-growing season. Initial use begins after planting either in April or May, with peak use occurring mid-May to June depending on the planting time.

Management practices include field-level management of rice pesticides and discharges, county agricultural commissioner (CAC) enforcement programs, grower education efforts, and communication programs. This section includes the thiobencarb water-hold table and general information on rice water quality management practices.

## Role of Management Practices in Attaining Water Quality Protection

Over the years, best management practices such as water-hold requirements and grower information meetings, along with inspection and enforcement actions, were implemented to ensure compliance with performance goals and attainment of water quality objectives and secondary maximum contaminant levels for the pesticides regulated under the RPP. The water holds, which are specified on pesticide use labels and through permit conditions, were developed to provide for in-field degradation of pesticides prior to the release of treated water to drains and other surface waters. For 2017, the thiobencarb water-holding requirements were unchanged and remain the same as those listed in the Department of Pesticide Regulation (DPR) Pesticide Use Enforcement Program Standards Compendium.

### Water Holds

The primary field-level water quality management practice is the water hold. The nature of rice farming, which requires standing water during the growing season, provides rice farmers with a unique opportunity to manage water flow. Water-hold durations vary based on requirements that are adopted from the data evaluations for the registration of the specific pesticide. The scientific data take into account the persistence of specific registered rice pesticides in the environment and are used to provide time for the applied product to degrade in the field. The goal of this strategy is to discharge rice drainage water that meets the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) (Central Valley Regional Water Quality Control Board [CVRWQCB], 2016) performance goals or other benchmarks.

The management practices developed under the RPP are the foundation for development and implementation of water-hold requirements for other pesticides. Over the years, water holds have become industry standard practice to address aquatic toxicity, taste complaints, environmental fate, and product efficacy. Thiobencarb water holds were originally developed with input from technical resources such as the University of California Cooperative Extension and pesticide registrants. Currently, the water-holding requirements result from the scientific data review for registration of all rice pesticides.

Water-hold requirements for thiobencarb are pesticide-use permit conditions under the RPP. Table C-1 specifies the water-hold requirements established by the DPR for the three registered formulations of thiobencarb.

**Table C-1. Water-Hold Requirements in Days for Thiobencarb, North Sacramento Valley**  
*2017 Rice Pesticides Program Monitoring Summary*

Release Type	Thiobencarb	
	Bolero® UltraMax League MVP	Abolish® 8EC
Single treated fields.	30	19
Release into tailwater recovery system or ponded onto fallow field or contained in other systems appropriate for preventing discharge.	19	19
System controlled by one permittee, then water may be discharged into the system in manner consistent with product labeling.	14	14
System includes drainage from more than one permittee, then water must be retained on-site.	6	6
Water on fields within bounds of areas that discharge negligible amounts of drainage onto perennial streams. Commissioner must evaluate such sites and verify the hydrologic isolation of the fields.	6	6
CAC may authorize emergency release of tailwater.	19	19

## Actions Taken to Address Identified Water Quality Impacts

The CACs are the local enforcement agencies working with DPR to enforce the California Food and Agricultural Code and the California Code of Regulations pertinent to pesticide use. The CACs issue restricted materials permits to growers purchasing and using agricultural pesticides in their respective counties. Thiobencarb is a restricted material with additional use restrictions (permit conditions) not found on the registered product label; water holds are the most common label requirement. Since 2003, the CVRWQCB has authorized several resolutions impacting the DPR permit conditions that require increased inspections for seepage control; buffer zones during application; a pre-season mandatory stewardship meeting for growers, PCAs, and applicators; and formation of a Storm Event Work Group. The CVRWQCB's resolution authorizing the 2010 RPP (R5-2010-9001) has continually been updated to adopt additional conditions recommended by the California Rice Commission (CRC). The conditions included in the current RPP authorization are summarized as follows:

- Continuation of the management practices incorporated in the 2009 use permit conditions, including water-holding requirements for thiobencarb, drift minimization, mandatory pre-season thiobencarb stewardship training, water management (including emergency releases), and seepage mitigation measures (R5-2010-9001 (1)(a)).
- Additional outreach to applicators on the results of the 2009 thiobencarb water quality monitoring and required management practices, including clarification of hold time requirements, application procedures, and notification requirements associated with elevated results near the Sacramento River drinking water intakes (R5-2010-9001 (1)(b)).
- Consultation with the 10 thiobencarb dealers and distributors in the Sacramento River Basin (R5-2010-9001 (1)(b)).
- Funding of additional county surveillance at nontraditional hours to double the level of 2009 surveillance and extension of the program to counties not previously funded. Surveillance inspections have increased to approximately 1.5 times the 2009 level with the new funding (R5-2010-9001 (1)(c)).

- Storm-related emergency releases will be monitored at a site representative of rice field discharges from a reclamation district with a previously closed system (R5-2010-9001 (1)(d)).
- If the Basin Plan Performance Goal or water quality objective (WQO) for thiobencarb is not met or increasing thiobencarb concentrations are observed in waters designated for municipal or domestic water supply, the CRC, after consultation with DPR, will submit to the Executive Officer proposed actions to be implemented to achieve the performance goal or WQO (R5-2010-9001 (1)(e)).

The restricted materials permits require the CACs to keep records of pesticides applied to rice acreage, while full use reporting will document agricultural pesticide applications. Rice growers or pest control operators submit Notices of Intent (NOIs) to the CACs at least 24 hours prior to application so that CAC staff can observe applications. Notices of Application are reported 24 hours after an application occurs so that water-holding times can be recorded, inspected, and tracked. Some counties are considering increasing the NOI to 48 hours so that CAC staff have additional time for pre-application inspections.

Compliance with pesticide-use restrictions is a critical component of the RPP to achieve water quality protection. A range of label restrictions and permit conditions applies to the use of rice pesticides, including mix/load, application, and water-hold requirements. CACs perform inspections to enhance compliance with each of the label restrictions and permit conditions. Mix/load inspections are performed primarily for worker protection and to evaluate whether pesticides are being properly handled and contained to prevent releases to the environment. Application inspections are performed to evaluate label and permit condition application restrictions such as buffer zones, adherence to rate and wind speed and other local requirements, and water management. Seepage inspections evaluate the efficacy of farm water management levees to hold water in-field throughout the duration of water holds.

## Release Inquiries and Emergency Releases

In 2017, there were no release inquiries, and only two reported emergency releases. The emergency releases were reported by Butte and Colusa counties as shown in Table C-2.

## Seepage Control and Inspections

Seepage is a water quality concern because rice field water can move laterally through levees bordering rice fields, especially when levees are constructed in a manner that does not prevent water seepage. The CVRWQCB expressed concern that seepage was a contributing factor to increased thiobencarb concentrations in the Sacramento River in the past.

For several years, the CRC has contracted with three CACs to fund off-duty enforcement activity on weekends and holidays during RPP pesticide use season. Surveillance inspections have been offered to all counties with rice acreage in the RPP. The number of inspections correlates to the thiobencarb NOIs and the amount of product used.

The CACs provide local oversight using the *DPR Pesticide Use Enforcement Program Standard Compendium, Volume 3, Restricted Materials Permitting* (DPR, 2016) with activity prioritization under the County Enforcement Work Plans. All rice pesticide water-holding requirements are ranked as high-priority inspections when rice pesticides are used as restricted materials.

The CACs conducted seepage inspections in 2017, as summarized in Table C-2. Based on the inspection data provided to the DPR Enforcement Branch by the CACs, 1,469 thiobencarb use sites were inspected for seepage. Of these inspected sites, 1,234 sites reported no seepage, 229 had reported seepage of less than 5 gallons per minute (gpm), and six sites had reported seepage of greater than 5 gpm. The sites with flow greater than 5 gpm constitute less than 1 percent of inspected sites.

## Water-Hold Inspections

The CACs conducted water-hold inspections of 1,554 thiobencarb use sites in 2017 (Table C-2). There were no reported release inquiries and two reported emergency releases. Of the 1,554 use sites inspected, five were issued agricultural civil penalties (ACPs). The ACPs were issued in Butte, Colusa, Sutter, Yolo, and Yuba counties.

## Application and Mix/Load Inspections

The CACs conducted application and mix/load inspections in 2017, as summarized in Table C-2. Based on inspection data provided by CACs to the DPR Enforcement Branch, 39 application inspections and 19 mix/load event inspections were performed in 2017.

Table C-2. 2017 Annual Rice Reporting Information from County Agricultural Commissioners

2017 Rice Pesticides Program Monitoring Summary

County	Chemical	Ag. Civil Penalties	Inspection Types														
			Application Inspections		Mix/Load Inspections		Release Inquires		Emergency Releases		Water Hold Inspections		Seepage Inspections		Sites with No Seepage	Sites w/Less than 5 gpm Seepage	Sites w/More than 5 gpm Seepage
			#	N/C	#	N/C	#	N/C	#	N/C	#	N/C	#	N/C			
Butte	Bolero® UltraMax	1	4	0	4	0	0	0	1	0	313	1	2	0	311	1	1
	Abolish® 8EC	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
	League® MVP	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0
	<b>County Total</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>334</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>311</b>	<b>0</b>	<b>0</b>
Colusa	Bolero® UltraMax	0	3	0	0	0	0	1	0	205	0	4	0	201	4	0	
	Abolish® 8EC	1	3	2	2	0	0	0	0	28	0	1	0	27	1	0	
	League® MVP	0	1	0	0	0	0	0	0	80	0	2	0	78	2	0	
	<b>County Total</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>313</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>306</b>	<b>7</b>	<b>0</b>
Glenn	Bolero® UltraMax	0	0	0	0	0	0	0	0	90	2	84	2	19	82	2	
	Abolish® 8EC	0	0	0	0	0	0	0	0	56	0	52	0	11	52	0	
	League® MVP	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	
	<b>County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>2</b>	<b>137</b>	<b>2</b>	<b>30</b>	<b>135</b>	<b>2</b>
Placer	Bolero® UltraMax	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	Abolish® 8EC	0	1	0	1	0	0	0	0	11	0	0	0	0	0	0	
	League® MVP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	<b>County Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Sacramento	Bolero® UltraMax	0	3	0	0	0	0	0	0	61	0	0	0	20	0	0	
	Abolish® 8EC	0	0	0	0	0	0	0	0	50	0	0	0	17	0	0	

Table C-2. 2017 Annual Rice Reporting Information from County Agricultural Commissioners

2017 Rice Pesticides Program Monitoring Summary

	League® MVP	0	0	0	0	0	0	0	0	0	0	0	0				
	<b>County Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>0</b>	
Sutter	Bolero® UltraMax	0	1	0	1	0	0	0	0	113	0	1	0	112	1	0	
	Abolish® 8EC	1	7	0	6	0	0	0	0	112	1	6	1	106	6	0	
	League® MVP	0	1	0	1	0	0	0	0	21	0	0	0	21	0	0	
	<b>County Total</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>246</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>239</b>	<b>7</b>	<b>0</b>	
Tehama	Bolero® UltraMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Abolish® 8EC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	League® MVP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	<b>County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Yolo	Bolero® UltraMax	0	4	0	0	0	0	0	0	116	0	0	0	116	0	0	
	Abolish® 8EC	1	1	0	0	0	0	0	0	4	2	0	0	4	0	2	
	League® MVP	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	<b>County Total</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>121</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>121</b>	<b>0</b>	<b>2</b>	
Yuba	Bolero® UltraMax	1	7	0	1	0	0	0	0	213	1	0	0	156	56	1	
	Abolish® 8EC	0	2	0	2	0	0	0	0	23	0	0	0	18	5	0	
	League® MVP	0	1	0	1	0	0	0	0	34	0	0	0	16	18	0	
	<b>County Total</b>	<b>1</b>	<b>10</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>270</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>190</b>	<b>79</b>	<b>1</b>	
<b>TOTAL</b>		<b>5</b>	<b>39</b>	<b>2</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1,554</b>	<b>7</b>	<b>153</b>	<b>3</b>	<b>1,234</b>	<b>229</b>	<b>6</b>

Appendix D  
Maps and Coordinates  
of Monitoring Locations

# Maps and Coordinates of Monitoring Locations

**Table D-1. Monitoring Location Information**

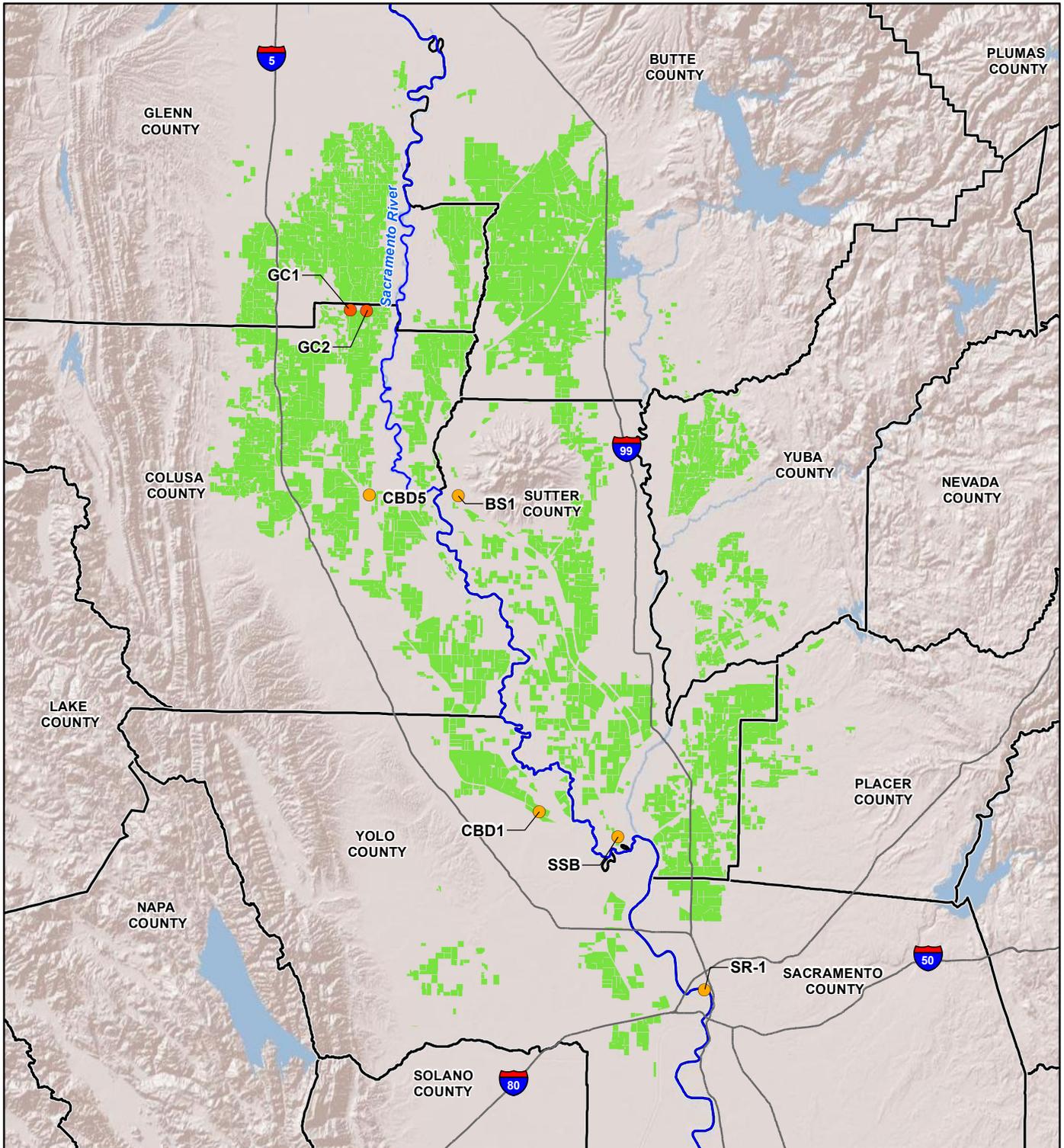
*2017 Rice Pesticides Program Monitoring Summary*

<b>Site</b>	<b>Site Name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Site Type</b>
CBD1	Colusa Basin Drain above Knights Landing	38.81248 N	-121.77429 W	Primary
CBD5	Colusa Basin Drain #5	39.18354 N	-122.05136 W	Primary
BS1	Butte Slough at Lower Pass Road	39.18717 N	-121.90833 W	Primary
SSB	Sacramento Slough Bridge near Karnak	38.78518 N	-121.65439 W	Primary
SR1	Sacramento River at Village Marina/Crawdads Cantina	38.60359 N	-121.518 W	Primary – river site
GC1	DPR Monitoring Site - Norman Road at Willow Creek	39.40663 N	-122.08028 W	DPR monitoring site
GC2	DPR Monitoring Site - Norman Road at Colusa Drain	39.40652 N	-122.05556 W	DPR monitoring site

Note:

Coordinates are North American Datum of 1983 (NAD83).

DPR = Department of Pesticide Regulation



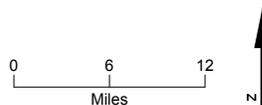
**LEGEND**

- CITY
- RPP MONITORING SITES
- DPR Monitoring Sites
- COUNTY
- RICE LAND 2017 PERMIT AREA

**NOTES:**

DATUM: NAD 1983.

SOURCES: BASEMAP (COPYRIGHT:© 2014 ESRI); RICE LANDS (CAL AG PERMIT, 2015); COUNTY (CAL FIRE 2007) ; HYDROLOGY (NHD ACCESSED JAN 2016).



**FIGURE D-1**  
**RPP Monitoring Sites**  
 RPP Annual Monitoring Report  
 California Rice Commission

Appendix E  
2017 Field and Laboratory Results

Appendix E-1  
Field Sheets and Chain-of-Custody  
Forms



Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC		Date: 5/9/2017	
StationID & Name : SSB		FIRST SAMPLE TIME: 1017	
Project ID: 20154800.003A-01	Arrival Time: 1008	Departure Time: 1030	
Sampling Crew (and Agency): Mark Lee / Lauren Short			
<b>OBSERVATIONS</b>		WADEABLE: YES / NO	PICTURE NAMES: 3 photos
DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, <del>Unk.</del> , Other			
SITE ODOR: <del>None</del> , Sulfides, Sewage, Petroleum, Mixed, Other			SKY CODE: clear, partly cloudy, overcast, fog, hazy
OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other			PRECIPITATION: <del>None</del> , Foggy, Drizzle, Rain, Snow
WATER ODOR: <del>None</del> , Sulfides, Sewage, Petroleum, Mixed, Other			PRECIPITATION (last 24 hrs): Unknown, <1", >1", <del>None</del>
WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)			WATERCOLOR: colorless, green, yellow, brown, other
OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5-20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs			
Comments:			
		Water Column Thickness: 15'      Sample Depth: 8'	
<b>PHYSICAL PARAMETERS</b>		<b>SAC</b>	<b>SR</b>
Water Temp (Celsius):	22.05	21.89	
Air Temp (°F):	70's		
*pH>8.5 or <6.5	pH: 7.39	7.20	
*DO<7.0	DO (mg/L): 5.67	5.71	
HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: _____		HYDROMODLOC: US / DS / NA	
<b>CALCULATED SITE DISCHARGE (cfs):</b>		Wet Channel Width (m):	
Transfer Calculated Value From Discharge Worksheet		Midchannel depth (m):	
Sample ID	Analyte	Container	Number
See Attached Chain of Custodies			

2015-502-11-1





Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC

Date: 5/9/2017

StationID & Name : CBD1

FIRST SAMPLE TIME: 1430

Project ID: 20154800.003A-01

Arrival Time: 1413

Target Lat. & Long.: 1457

Sampling Crew (and Agency): Mark Lee / Lauren Short

Departure Time: 1450

Actual Lat & Long:

Datum: Accuracy (ft / m):

PICTURE NAMES:

WADEABLE: YES / NO

OBSERVATIONS

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Unk., Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

Comments:

Water Column Thickness: 10' Sample Depth: 5'

PHYSICAL PARAMETERS Water Temp (Celsius): 22.74 SR 22.19 SAMPLE COLLECTION Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)

Air Temp (°F): 80.5 STARTING BANK: LB / RB/NA

pH: 7.66 OCCUPATION METHOD: Walk-in, Bridge, Other:

\*DO<7.0 DO (mg/L): 6.35 SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: 10' tube

HYDRO-MODIFICATION: None, Bridge/Pipes, Concrete Channel, Culvert, Other:

HYDROMODLOC: US / DS / NA

Wet Channel Width (m):

Midchannel depth (m):

Stage:

Container

Number

Notes

See Attached Chain of Custodies

Event ID:

Project ID <u>306</u>	Field Crew:		
Site ID <u>GCI</u>	<u>KA, SA</u>		
Site Location	Sample Type	Norm	Duplicate Blank
Sample Date	Sample Matrix	Water	Sediment
Sample Time	Sampler	Hand	Pole

**Water Body Conditions**

Water Body Type	River	Creek/Stream	<u>Ag Drain</u>
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	<u>Murky</u>	Green <u>Brown</u> Black Other
Emergent Vegetation	Absent	<u>Present</u>	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	<u>Silt</u>	<u>Sand</u> Cobble Other

**Crops and Irrigation**

Crops in Vicinity	
Irrigation	not observed      observed: sprinkler    dripper    furrow    other
Notes	

**Water Quality Measurements**

Time <u>1030</u>	TDS (g/L) <u>185</u>	pH <u>7.33</u>
Temp (°C) <u>19.45</u>	Salinity (ppt) <u>.14</u>	Turbidity (NTU)
Conductivity (mS/cm) <u>.284</u>	DO (mg/L) <u>8.2</u>	ExoSonde Unit # <u>2</u>

**Sample Numbers**

<del>Organophosphates (OP-U)</del>	<del>Phenoxxy (PX)</del>	<del>Triazines/Metribuzin (TR)</del>
<del>Dinitroaniline (DN)/Oxyfluorfen (OXY)</del>	<del>Imidacloprid</del>	<del>Backup (BU)</del>

Comments: No water measurements taken at GCI - lost instrument!







Project No.		Project Name		Analysis		Receiving Lab:	
20154800.003A		RPP- W1D1				North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
Task 01		Sample I.D.		Thiobencarb		Instructions/Remarks	
L.P. No. (PO No.)	Samplers: (Signature/Number)	Sample I.D.	Matrix	Type of Containers	No. of Containers	Standard turn around time	
	M.lee / G. Short						
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	Type of Containers	No. of Containers		
1	05/09/17 0855	SR1-NCL-1-1	W	500 mL	1		
2	05/09/17 1017	SSB-NCL-1-1	W	500 mL	1		
3	05/09/17 1137	BS1-NCL-1-1	W	500 mL	1		
4	05/09/17 1252	CBD5-NCL-1-1	W	500 mL	1		
5	05/09/17 1433	CBD1-NCL-1-1	W	500 mL	1		
6	05/09/17 1630	GC1-NCL-1-1	W	500 mL	1	DPR sample, see page 2 CoC	
7	05/09/17 1115	GC2-NCL-1-1	W	500 mL	1	DPR sample, see page 2 CoC	
8						DPR CoC # <i>NAF</i>	
9						<i>#1 L Amber</i>	
10							
11							
12							
13							
14							
15							
Relinquished By: <i>[Signature]</i>		Date/Time	Received By: <i>FEDEx</i>		Instructions/Remarks		
Relinquished By: <i>[Signature]</i>		Date/Time	Received By:		Please send invoice to VALENT LABS		
Relinquished By:		Date/Time	Received By:		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		

CHAIN-OF-CUSTODY

*2 Coolers*

Project No. 20154800.003A Task 01		Project Name RPP- W1D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number)	No. of Containers		Instructions/Remarks	
	<i>Milee 1556</i> <i>L. Sworch 1207</i>	1		Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	Type of Containers	Analysis
1 05/09/17	1305	CBD5-NCL-1-1-RB	W	500 mL	Thiobencarb X
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By:	Date/Time	Received By:	Instructions/Remarks		
<i>[Signature]</i>	5/9/18 1645	FEDEX	Please send invoice to KLEINFELDER		
Relinquished By:	Date/Time	Received By:	Send Results To:		
			rriroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By:	Date/Time	Received By:			

2 Cool(er)

CHAIN-OF-CUSTODY

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): R/C / Kleru Logged out by (data entry): \_\_\_\_\_ 12:00  
 Date delivered to lab: 5/9/17 Data entry date: \_\_\_\_\_ PM  
 DePue Warehouse  
 Checked-out by: KW / SW Storage location code: \_\_\_\_\_  
 Laboratory delivering To: \_\_\_\_\_ Page 1 of 1

Remarks: Samples delivered to DePue Warehouse

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
G01	P	5/9/17	W	1/1/1/1	C	Alto	CRC Rice 1
G02	P	↓				Benzo/Net	Samples 2
BU	BU	↓				—	↓ 3
BU	BU	↓				—	↓ 4
							5
							6
							7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22

11/06

White copy-Lab Liaison. Yellow -Sample Custodian, Pink-Laboratory

KLF picked up @ 1330











Event ID:

CRC Samples

Project ID <del>306</del>	Field Crew:
Site ID GCI	KN, JY, RG
Site Location Norman Rd	Sample Type Norm Duplicate Blank
Sample Date 5/16/2017	Sample Matrix Water Sediment
Sample Time 10:35 am	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky: Green	Brown Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	Rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	

Water Quality Measurements

Time 10:35 am	TDS (mg/L)	pH 6.4
Temp (°C)	Salinity (ppt)	Turbidity (NTU)
Conductivity (mS/cm)	DO (mg/L) 7.16	ExoSonde Unit # #1

Sample Numbers

Phenoxy (PX)	Triazines/Metribuzin (TR)	Imidacloprid
306-	306-	306-
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Organophosphates (OP-U)	Backup (BU)
306-	306-	306-
Backup-acidified (BA)		
306-		

Comments: \_\_\_\_\_

Event ID: **CRC sampling**

Project ID 306	Field Crew: KN, JY, KG
Site ID GC2	
Site Location	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 5/16/2017	Sample Matrix <u>Water</u> Sediment
Sample Time 1106	Sampler Hand <u>Pole</u>

**Water Body Conditions**

Water Body Type	River <u>Creek/Stream</u> Ag Drain
Water Flow	Dry Poned <u>Flowing</u> <b>Fast</b>
Water Color	Clear Murky: Green <u>Brown</u> Black Other
Emergent Vegetation	Absent <u>Present</u>
Floating Macrophytes	<u>Absent</u> Present
Vegetation on the Bank	Absent <u>Present</u>
Substrates	Cement <u>Silt</u> Sand Cobble Other

**Crops and Irrigation**

Crops in Vicinity	
Irrigation	not observed <u>observed</u> : sprinkler dripper furrow other <b>Flood</b>
Notes	

**Water Quality Measurements**

Time 11:06	TDS (mg/L) _____	pH 7.15
Temp (°C) _____	Salinity (ppt) _____	Turbidity (NTU) _____
Conductivity (mS/cm) _____	DO (mg/L) 6.9	ExoSonde Unit # 1

**Sample Numbers**

Phenoxy (PX)	Triazines/Metribuzin (TR)	Imidacloprid
306-	306-	306-
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Organophosphates (OP-U)	Backup (BU)
306-	306-	306-
Backup-acidified (BA)		
306-		

Comments: \_\_\_\_\_







Project No. 20154800.003A Task 01		Project Name <b>RPP- W2D1</b>		Receiving Lab: <b>North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649</b>	
L.P. No. (PO No.)		Samplers: (Signature/Number) <i>Markbee / 1576</i>		Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
05/16/17	0910	SR1-NCL-2-1	W	1	500 mL
05/16/17	1035	SSB-NCL-2-1	W	1	500 mL
05/16/17	1300	BS1-NCL-2-1	W	1	500 mL
05/16/17	1520	CBD5-NCL-2-1	W	1	500 mL
05/16/17	1714	CBD1-NCL-2-1	W	1	500 mL
05/16/17	1035	GC1-NCL-2-1	W	1	500 mL
05/16/17	1106	GC2-NCL-2-1	W	1	500 mL
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>Markbee</i>		Date/Time 5/16/17 1900		Received By: <i>Sybil Aho</i>	
Relinquished By: <i>Markbee</i>		Date/Time 5/17/17 1000		Received By:	
Relinquished By:		Date/Time		Received By:	
Analysis			Instructions/Remarks		
Thiobencarb			Please send invoice to VALENT LABS		
			Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
			DPR sample, see page 2 CoC		
			DPR sample, see page 2 CoC		
			DPR CoC #		



<b>Project No.</b> 20154800.003A <b>Task 01</b>		<b>Project Name</b> RPP- W2D1		<b>Receiving Lab:</b> North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649			
<b>L.P. No.</b> (PO No.)		<b>Samplers:</b> (Signature/Number) <i>Moore / 1556</i>		<b>Instructions/Remarks</b> Standard turn around time			
<b>Date</b> MM/DD/YY	<b>Sample I.D. Time</b> HH-MM-SS	<b>Sample I.D.</b>	<b>Matrix</b>	<b>No. of Containers</b>	<b>Type of Containers</b>		
1	05/16/17	1520	CBD5-NCL-2-1-D	W	1	500 mL	<b>Analysis</b> Thiobencarb X
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
<b>Relinquished By:</b> <i>[Signature]</i>		<b>Date/Time</b> 5/16/17 1900		<b>Received By:</b> <i>[Signature]</i>		<b>Instructions/Remarks</b> Please send invoice to <b>KLEINFELDER</b>	
<b>Relinquished By:</b> <i>[Signature]</i>		<b>Date/Time</b> 5/17/17 1000		<b>Received By:</b>		<b>Send Results To:</b> rrfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
<b>Relinquished By:</b>		<b>Date/Time</b>		<b>Received By:</b>			

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

CRC STUDY  
 Study number (project ID): \_\_\_\_\_ Logged out by (data entry): \_\_\_\_\_  
 Date delivered to lab: 5/16/2017 Data entry date: \_\_\_\_\_  
 Checked-out by: KN Storage location code: \_\_\_\_\_  
 Laboratory delivering To: Depue WH Page 1 of 1

Remarks:

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
Gc1	P	5/16/17	WAT	500mL	C	TB	1
Gc1	P	↓	↓	↓	↓	Benzo	2
Gc1	BU	↓	↓	↓	↓	BU	3
							4
Gc2	P	5/16/17	WAT	500mL	C	TB	5
Gc2	P	↓	↓	↓	↓	Benzo	6
Gc2	BU	↓	↓	↓	↓	BU	7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22

KLF picked @ 1500.





Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 Station ID & Name: **SSB**  
 Project ID: **20154800.003A-01**  
 Sampling Crew (and Agency): Mark Lee / Lauren Short

Date: **5/23/2017**  
 FIRST SAMPLE TIME: **1045**  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft / m):

Arrival Time: **1027** Departure Time: **1100**

**OBSERVATIONS**

WADEABLE: YES / **(NO)**

PICTURE NAME/S:

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Unk., Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, Oily/Sheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Mucky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: (None), Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:

Water Column Thickness: 19' Sample Depth: 9'

PHYSICAL PARAMETERS	SAC	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius):	<u>24.87</u>	<u>74.65</u>	STARTING BANK: LB / RB/ NA	
Air Temp (°F):		<u>80's</u>	OCCUPATION METHOD: Walk-in, Bridge, Other:	
*pH>8.5 or <6.5	<u>7.35</u>	<u>7.20</u>	SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: <u>canister</u>	
*DO<7.0	<u>4.71</u>	<u>4.76</u>	SAMPLE LOCATION: Bank, Thaliweg, <u>Midchannel</u> , Open Water	
			HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: _____	
			HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):	
Wet Channel Width (m):	Wet Channel Width (m):
Midchannel depth (m):	Stage:

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				

caretaker had to be located. gates locked.

Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC

Date: 5/23/2017

StationID & Name : BS1

FIRST SAMPLE TIME: 1200

Project ID: 20154800.003A-01

Target Lat. & Long.:

Sampling Crew (and Agency): Mark Lee / Lauren Short

Arrival Time: 1145

Departure Time: 1230

Actual Lat & Long:

Datum: Accuracy (ft / m):

PICTURE NAME/S:

WADEABLE:  
YES / NO

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Unk., Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

Comments:

Water Column Thickness: 12' Sample Depth: 6'

PHYSICAL PARAMETERS

Water Temp (Celsius): 24.81 SR 24.66 SAMPLE COLLECTION Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)

Air Temp (°F): 90's STARTING BANK: LB / RB/ NA

\*pH>8.5 or <6.5 pH: 7.46 7.24 OCCUPATION METHOD: Walk-in, Bridge, Other:

\*DO<7.0 DO (mg/L): 5.55 5.43 SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: Leander

SAMPLE LOCATION: Bank, Thailweg, Midchannel, Open Water

HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: \_\_\_\_\_

HYDROMODLOC: US / DS / NA

CALCULATED SITE DISCHARGE (cfs):

Wet Channel Width (m): Wet Channel Width (m):

Midchannel depth (m): Stage:

Sample ID Analyte Container Number Notes

See Attached Chain of Custodies

Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC

Date: 5/23/2017

StationID & Name : CBD5

FIRST SAMPLE TIME: 1300

Project ID: 20154800.003A-01

Arrival Time: 1245 Departure Time: 1313

Sampling Crew (and Agency): Mark Lee / Lauren Short

Target Lat. & Long.:

Actual Lat & Long:

Datum: Accuracy (ft / m):

PICTURE NAME/S:

WADEABLE:  
YES / NO

OBSERVATIONS

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, (Unk), Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:

Water Column Thickness: 20

Sample Depth: 10

PHYSICAL PARAMETERS

Water Temp (Celsius): 25.91

Air Temp (°F): 90.5

\*pH>8.5 or <6.5 pH: 7.88

\*DO<7.0 DO (mg/L): 7.38

SAC

SAMPLE COLLECTION

SR

Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)

STARTING BANK: LB / RB/NA

OCCUPATION METHOD: Walk-in, Bridge, Other:

SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: *Leontyne*

SAMPLE LOCATION: Bank, Thailweg, Midchannel, Open Water

HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other:

HYDROMODLOC: US / DS / NA

CALCULATED SITE DISCHARGE (cfs):

Transfer Calculated Value From Discharge Worksheet

Wet Channel Width (m):

Midchannel depth (m):

Wet Channel Width (m):

Stage:

Sample ID

Analyte

Container

Number

Notes

See Attached Chain of Custodies



KLEINFELDER  
INSTRUMENT CALIBRATION LOG

Sampler Name/No.: Mark Lee / Lauren Short

Date: 5/23/2017

Project No.: 20154800.003A-01/02

Job Name: RPP 2017

Calibration  
Start Time: 0645

		pH Meter: YSI-SAC					EC Meter: YSI-SAC	
	Time	Temp. via Thermometer	Temp. via YSI 100 Meter	pH7	mVpH (pH 7)	pH10	mVpH (pH10)	1413 umho
Reading (initial)	0655		26.51	7.03	-1.9	9.94	-175.6	Reading (initial) 1423
Calibration (initial)	0725		25.37	7.00	-1.8	10.00	-175.6	Calibration (initial) 1413
Reading (intermediate)	0855		26.80	6.84	-8.9	10.10	-178.8	Reading (intermediate)
Calibration (intermediate)	0902		26.65	7.00	-9.2	10.00	-79.2	Calibration (intermediate)
Reading (end of day)								Reading (end of day)
Comments:								

Turbidity Meter (make/number):		D.O. Meter: YSI-SAC	
NTU	NTU	Barometric Pressure: 756.6 mmHg	mg/L
Reading (Initial)			%
Calibration		Reading (initial): 8.43	96.2
		Reading (adj.): 8.74	99.6
		Intermediate Reading (initial):	
		Intermediate Reading (adj.):	

KLEINFELDER  
INSTRUMENT CALIBRATION LOG

Sampler Name/No.: Mark Lee / Lauren Short

Date: 5/23/2017

Project No.: 20154800.003A-01/02

Job Name: RPP 2017

Calibration

Start Time: 0645

		pH Meter: YSI-SR					EC Meter: YSI-SR	
	Time	Temp. via Thermometer	Temp. via YSI Meter <sup>°C</sup>	pH7	mVpH (pH 7)	pH10	mVpH (pH10)	1413 umho
Reading (initial)	0655	/	26.70	7.98	-58.1	9.78	-222.1	Reading (initial) 1437
Calibration (initial)	0725	/	25.30	7.00	-58.0	10.00	-222.2	Calibration (initial) 1413
Reading (intermediate)								Reading (intermediate)
Calibration (intermediate)								Calibration (intermediate)
Reading (end of day)								Reading (end of day)

Comments:

Turbidity Meter (make/number): \_\_\_\_\_

D.O. Meter: YSI-SR

	NTU	NTU	NTU	Battery Check	Barometric Pressure: <u>755.6</u> mmHg	mg/L	%
Reading (Initial)							
Calibration						Reading (initial): 8.03	—
						Reading (adj.): 8.68	99.4
					Intermediate Reading (initial):		
					Intermediate Reading (adj.):		

Event ID: *Rice Samples*

Project ID <del>306</del> <i>GCI</i>	Field Crew:
Site ID <i>GCI</i>	<i>KN, KG, KP</i>
Site Location	Sample Type <u>Norm</u> Duplicate Blank
Sample Date <i>5/23/2017</i>	Sample Matrix <u>Water</u> Sediment
Sample Time <i>10:24 am</i>	Sampler Hand <u>Pole</u>

**Water Body Conditions**

Water Body Type	River	Creek/Stream	<u>Ag Drain</u>
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	Murky: Green	<u>Brown</u> Black Other <i>mixture of runoff</i>
Emergent Vegetation	Absent	<u>Present</u>	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	Silt	Sand Cobble Other

**Crops and Irrigation**

Crops in Vicinity <i>rice</i>
Irrigation not observed observed: sprinkler dripper furrow other
Notes

**Water Quality Measurements**

Time <i>10:25 am</i>	TDS (g/L) <i>182</i>	pH <i>6.95</i>
Temp (°C) <i>23.564</i>	Salinity (ppt) <i>0.13</i>	Turbidity (NTU) <i>—</i>
Conductivity (mS/cm) <i>0.281</i>	DO (mg/L) <i>7.68</i>	ExoSonde Unit # <i>2</i>

**Sample Numbers**

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_

Event ID: *Rice Sampling*

Project ID <i>306-GC2</i>	Field Crew:
Site ID <i>GC2</i>	<i>KN, KG, KP</i>
Site Location	Sample Type <u>Norm</u> Duplicate Blank
Sample Date <i>5/23/2017</i>	Sample Matrix <u>Water</u> Sediment
Sample Time <i>10:55 am</i>	Sampler Hand <u>Pole</u>

**Water Body Conditions**

Water Body Type	River	Creek/Stream	<u>Ag Drain</u>
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	<u>Murky</u>	Green <u>Brown</u> Black Other
Emergent Vegetation	Absent	<u>Present</u>	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	<u>Silt</u>	Sand Cobble Other

**Crops and Irrigation**

Crops in Vicinity <i>rice</i>
Irrigation not observed observed: sprinkler dripper furrow other
Notes

**Water Quality Measurements**

Time <i>10:35 am</i>	TDS (g/L) <i>266</i>	pH <i>7.15</i>
Temp (°C) <i>23.84</i>	Salinity (ppt) <i>0.2</i>	Turbidity (NTU)
Conductivity (mS/cm) <i>0.410</i>	DO (mg/L) <i>6.64</i>	ExcSonde Unit # <i>2</i>

**Sample Numbers**

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_



Project No.		Project Name		Analysis		Receiving Lab:	
20154800.003A		RPP- W3D1				North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
Task 01		Sample I.D.		Thiocarb		Instructions/Remarks	
L.P. No. (PO No.)	Samplers: (Signature/Number)						
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers		
1	05/23/17	0835 SR1-NCL-3-1	W	1	500 mL	X	
2	05/23/17	1045 SSB-NCL-3-1	W	1	500 mL	X	
3	05/23/17	1200 BS1-NCL-3-1	W	1	500 mL	X	
4	05/23/17	1300 CBD5-NCL-3-1	W	1	500 mL	X	
5	05/23/17	1430 CBD1-NCL-3-1	W	1	500 mL	X	
6	05/23/17	1024 GC1-NCL-3-1	W	1	500 mL	X	DPR sample, see page 2 CoC
7	05/23/17	1033 GC2-NCL-3-1	W	1	500 mL	X	DPR sample, see page 2 CoC
8							DPR CoC # - NA
9							
10							
11							
12							
13							
14							
15							
Relinquished By:		Date/Time		Received By:		Instructions/Remarks	
						Please send invoice to VALENT LABS	
Relinquished By:		Date/Time		Received By:		Send Results To:	
						rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
Relinquished By:		Date/Time		Received By:			



Project No.		Project Name		Receiving Lab:	
20154800.003A		RPP- W3D1		North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Task 01		Instructions/Remarks	
		Samplers: (Signature/Number)			
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1 05/23/17	0713	CRC1-NCL-3-1	W	1	500 mL
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By:		Date/Time	Received By:		
Relinquished By:		Date/Time	Received By:		
Relinquished By:		Date/Time	Received By:		
Analysis			Instructions/Remarks		
Thiobencarb			Please send invoice to KLEINFELDER		
			Send Results To:		
			rffiroved@calrice.org		
			jenny.krenz@CH2M.com		
			criddle@kleinfelder.com		
			sgardner@kleinfelder.com		

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): Rice Sample Logged out by (data entry): \_\_\_\_\_  
 Date delivered to lab: 5/23/17 Data entry date: \_\_\_\_\_  
 Checked-out by: [Signature] Storage location code: \_\_\_\_\_  
 Laboratory delivering To: DePue Page 1 of 1

Remarks:

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
67C1	TB	5/23/17	P	Glass		—	— 1
↓	BEN	↓	P	Glass			2
↓	BU	↓	BU	Glass			3
							4
67C2	TB	5/23/17	P				5
↓	BEN	↓	P				6
↓	BU	↓	BU	↓			7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22

11/06

White copy-Lab Liaison, Yellow -Sample Custodian, Pink-Laboratory

[Signature] pick up @ 1330



Project No.		Project Name		Analysis		Receiving Lab:	
20154800.003A Task 01		RPP- W3D1				KLF SAMPLE CONTROL	
L.P. No. (PO No.)		Samplers: (Signature/Number)				Instructions/Remarks	
						See Craig Riddle or Sue Gardner before disturbing these samples	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers	Analysis	Instructions/Remarks
1	05/23/17 0835	SR1-B-3-1	W	1	1-L Amber	HOLD	
2	05/23/17 1045	SSB-B-3-1	W	1	1-L Amber	X	
3	05/23/17 1200	BS1-B-3-1	W	1	1-L Amber	X	
4	05/23/17 1300	CBD5-B-3-1	W	1	1-L Amber	X	
5	05/23/17 1430	CBD1-B-3-1	W	1	1-L Amber	X	
6	05/23/17 1024	GC1-B-3-1	W	1	1-L Amber	X	
7	05/23/17 1035	GC2-B-3-1	W	1	1-L Amber	X	
8							
9							
10							
11							
12							
13							
14							
15							
Relinquished By:		Date/Time		Received By:		Instructions/Remarks	
						Send Results To:	
Relinquished By:		Date/Time		Received By:			
Relinquished By:		Date/Time		Received By:			



Re: D.O. @ DR1

SAC DR  
Cont 95 95

DO is readings on both meters are over 100%.  
Current is swift. Drop both probes 1.5' deeper  
to measure difference. mg/L dropped 0.2 to 0.2 mg/L.  
Failed probe to original depth. <sup>Sec</sup> <sub>5</sub> <sup>SK</sup>  
below water surface. Do measurements returned to  
previously recorded. Large boat went by creating  
large wake that rocked the mariner. DO began  
to rise in both meters. Meters could be wicking up  
O<sub>2</sub> as it dissolves at the water surface. place  
probed in DI water in Cal Cups. DO rapidly falls  
to ~80% / 8.5 mg/L  $\Rightarrow$  similar to calibration values.









Event ID:

CRC Rice Sampling

Project ID <del>306</del>	Field Crew:
Site ID GCI	SW, KG
Site Location	Sample Type Norm Duplicate Blank
Sample Date 5/30/2017	Sample Matrix Water Sediment
Sample Time 10:38am	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain			
Water Flow	Dry	Ponded	Flowing			
Water Color	Clear	Murky	Green	Brown	Black	Other
Emergent Vegetation	Absent	Present				
Floating Macrophytes	Absent	Present				
Vegetation on the Bank	Absent	Present				
Substrates	Cement	Silt	Sand	Cobble	Other	

Crops and Irrigation

Crops in Vicinity
Irrigation not observed      observed: sprinkler    dripper    furrow    other
Notes

Water Quality Measurements

Time 10:45	TDS (g/L) 247	pH 7.52
Temp (°C) 22.597	Salinity (ppt) 0.18	Turbidity (NTU)
Conductivity (mS/cm) 0.38	DO (mg/L) 7.06	ExoSonde Unit # 2

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
<del>Dinitroaniline (DN)/Oxyfluorfen (OXY)</del>	<del>Imidacloprid</del>	<del>Backup (BU)</del>

Comments:

\_\_\_\_\_

Event ID: CRC Rice Sampling

Project ID <del>306</del>	Field Crew:
Site ID GC2	SN, KG
Site Location	Sample Type Norm Duplicate Blank
Sample Date 5/30/17	Sample Matrix Water Sediment
Sample Time 10:57 am	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky	Green Brown Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity
Irrigation not observed observed: sprinkler dripper furrow other
Notes

Water Quality Measurements

Time 10:58 am	TDS (g/L) 287	pH 7.54
Temp (°C) 22.951	Salinity (ppt) 0.21	Turbidity (NTU)
Conductivity (mS/cm) 0.442	DO (mg/L) 6.93	ExoSonde Unit # 2

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments:

P/up 5 1430 hrs









Project No. 20154800.003A		Project Name RPP- W4D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
Task 01		L.P. No. (PO No.) Milee / C. Short		Instructions/Remarks Standard turn around time	
Sample I.D. Time HH-MM-SS		Sample I.D.		Matrix	
Date MM/DD/YY		No. of Containers		Type of Containers	
1 05/30/17 11 51		1		500 mL	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Thiobencarb		X			
Relinquished By: <i>[Signature]</i>		Date/Time 9/30/17 1820		Received By: KLF Sample Control	
Relinquished By:		Date/Time		Received By:	
Relinquished By:		Date/Time		Received By:	
Instructions/Remarks Please send invoice to KLEINFELDER		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			

SAMPLE CHECK-IN SHEET

Environmental Monitoring Branch

Study number (project ID): CRC Sampling

Date received (at warehouse): 5/30/2017

Checked-in by: KG

Page 1 of 1 DePue WH

Sample Tracking Staff Only:

Logged In by: (data entry) \_\_\_\_\_

Data entry date: \_\_\_\_\_

Storage location code: \_\_\_\_\_

Remarks:

Samples were stored in ice chest # \_\_\_\_\_ at check-in.

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
G01	P	5/30/17	WAT	500mL	C	TB	1
↓	P	↓	↓	↓	↓	Benzo	2
↓	BU	↓	↓	↓	↓	BU	3
							4
G02	P	5/30/17	WAT	500mL	C	TB	5
↓	P	↓	↓	↓	↓	Benzo	6
↓	BU	↓	↓	↓	↓	BU	7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22
							23
							24

KIF picked up @ 1430



Project No. 20154800.003A Task 01		Project Name RPP- W4D1 and WDR SE-2		Receiving Lab: <b>KLF SAMPLE CONTROL</b>	
L.P. No. (PO No.)		Samplers: (Signature/Number) <i>M. Lee / C. Short</i>		Instructions/Remarks	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1	05/30/17 0830	SR1-B-4-1	W	1	1-L Amber
2	05/30/17 1010	SSB-B-4-1	W	1	1-L Amber
3	05/30/17 1159	BS1-B-4-1	W	1	1-L Amber
4	05/30/17 1320	CBD5-B-4-1	W	1	1-L Amber
5	05/30/17 1541	CBD1-B-4-1	W	1	1-L Amber
6	05/30/17 1038	GC1-B-4-1	W	1	1-L Amber
7	05/30/17 1051	GC2-B-4-1	W	1	1-L Amber
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time: 5/30/17 1820	Received By: <i>[Signature]</i> KLF Sample Control		
Relinquished By:		Date/Time:	Received By:		
Relinquished By:		Date/Time:	Received By:		
Analysis				Instructions/Remarks	
HOLD				Send Results To:	
				See Craig Riddle or Sue Gardner before disturbing these samples	
				DPR Samples See	
				DPR Sample Contacted	







Coalition Name: CRC  
 StationID & Name : CBD5  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Mark Lee/ Lauren Short

Date: 6/6/2017  
 FIRST SAMPLE TIME: 1225  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft / m):

Arrival Time: 1210  
 Departure Time: 1245

**OBSERVATIONS**

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Link, Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4 vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

WADEABLE: YES / NO

PICTURE NAME/S:

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:

Water Column Thickness: 10 Sample Depth: 5

**PHYSICAL PARAMETERS**

Water Temp (Celsius): 25.26 SR: 25.12 SAMPLE COLLECTION: Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)

Air Temp (°F): 80's STARTING BANK: LB / RB / NA

\*pH>8.5 or <6.5 pH: 7.70 OCCUPATION METHOD: Walk-in, Bridge, Other: \_\_\_\_\_

\*DO<7.0 DO (mg/L): 6.59 SAMPLING EQUIPMENT: Individ bottle by hand, By pole, Other: H. Krummer

SAMPLE LOCATION: Bank, Thalweg, Midchannel, Open Water

HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: \_\_\_\_\_

HYDROMODLOC: US / DS / NA

**CALCULATED SITE DISCHARGE (cfs):**

Transfer Calculated Value From Discharge Worksheet

Wet Channel Width (m):  
 Midchannel depth (m):  
 Stage:

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				

PH 7.80  
 See attached operation nearby  
 1. CR traffic. Create Dust



Event ID:

Project ID 306	Field Crew:
Site ID GCI	Scott Wagner, Kaylynn Newhart
Site Location Colusa County	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 6/6/2017	Sample Matrix <u>Water</u> Sediment
Sample Time 10:25	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River <u>Creek/Stream</u> Ag Drain
Water Flow	Dry Poned <u>Flowing</u>
Water Color	Clear Murky: Green <u>Brown</u> Black Other
Emergent Vegetation	<u>Absent</u> Present
Floating Macrophytes	<u>Absent</u> Present
Vegetation on the Bank	Absent <u>Present</u>
Substrates	Cement <u>Silt</u> Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	Rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	flooded rice fields, rice emerging

Water Quality Measurements

Time 10:33	TDS (g/L) 278 mg/L	pH 6.93
Temp (°C) 24.156	Salinity (ppt) 0.20	Turbidity (NTU)
Conductivity (mS/cm) 0.425	DO (mg/L)	ExoSonde Unit # 3

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: Inflow from adjacent fields

Event ID:

Project ID 306	Field Crew:
Site ID G02	Scott Wagner, Kaylynn Newhart
Site Location Colusa County	Sample Type Norm Duplicate Blank
Sample Date 6/6/2017	Sample Matrix Water Sediment
Sample Time 10:50	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky: Green Brown	Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	Rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	

Water Quality Measurements

Time 10:53	TDS (g/L) 310	pH 7.11
Temp (°C) 24.053	Salinity (ppt) 0.23	Turbidity (NTU)
Conductivity (mS/cm) 0.476	DO (mg/L) ?	ExoSonde Unit # 3

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_







Project No. 20154800.003A Task 01		Project Name RPP- W5D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number)		Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1 06/06/17	0855	SR1-NCL-5-1-D	W	1	500 mL
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time 6/6/17 14:00	Received By: KLC Sample Conty		
Relinquished By:		Date/Time	Received By:		
Relinquished By:		Date/Time	Received By:		
Analysis		Instructions/Remarks Please send invoice to KLEINFELDER			
Thiocarb		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			

Project No.		Project Name		Analysis		Receiving Lab:		
20154800.003A		RPP- W5D1				KLF SAMPLE CONTROL		
Task 01		Samplers: (Signature/Number)				Instructions/Remarks		
L.P. No. (PO No.)						See Craig Riddle or Sue Gardner before disturbing these samples		
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers	Analysis	Instructions/Remarks	
06/06/17	0855	SR1-B-5-1	W	1	1-L Amber	HOLD		
06/06/17	1005	SSB-B-5-1	W	1	1-L Amber	X		
06/06/17	1125	BS1-B-5-1	W	1	1-L Amber	X		
06/06/17	1225	CBD5-B-5-1	W	1	1-L Amber	X		
06/06/17	1405	CBD1-B-5-1	W	1	1-L Amber	X		
06/06/17	1025	GC1-B-5-1	W	1	1-L Amber	X		
06/06/17	1050	GC2-B-5-1	W	1	1-L Amber	X		
8								
9								
10								
11								
12								
13								
14								
15								
Relinquished By: <i>[Signature]</i>		Date/Time: 9/6/17 1600	Received By: KLF Sample Control		Instructions/Remarks			Send Results To:
Relinquished By:		Date/Time:	Received By:					
Relinquished By:		Date/Time:	Received By:					

SAMPLE CHECK-IN SHEET

Environmental Monitoring Branch

Study number (project ID): Rice Samples

Sample Tracking Staff Only

Date received (at warehouse): 6/6/2017

Logged In by: (data entry) \_\_\_\_\_

Checked-in by: Knewhart, SW

Data entry date: \_\_\_\_\_

Page 1 of 1

Storage location code: \_\_\_\_\_

Remarks: Dropped samples off @ 11:30 am.

Samples were stored in ice chest # \_\_\_\_\_ at check-in.

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
G1	TB	6/6/17	P				1
↓	BEN	↓	P				2
↓	BU	↓	BU				3
							4
G2	TB	↓	P				5
↓	BEN	↓	P				6
↓	BU	↓	BU				7
↓							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22
							23
							24

K/P POC kug @ 1300







Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name : CBD5  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Lauren Short/ Mehdi Galouei

Date: 6/8/2017  
 FIRST SAMPLE TIME: 12:05  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft. / m):

Arrival Time: 12:00  
 Departure Time: 12:50

**OBSERVATIONS**

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, JR, Other

SITE ODOR: (None) Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, Oily/Sheen, Foam, Trash, None, Other

WATER ODOR: (None), Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 (5 cfs) 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown (<1), >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:

Water Column Thickness: 10 Sample Depth: 5

PHYSICAL PARAMETERS	SAC	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius):	21.16	20.77	STARTING BANK: LB / RB/ NA	
Air Temp (°F):	50.2		OCCUPATION METHOD: Walk-in, Bridge, Other:	
*pH>8.5 or <6.5	7.86	7.74	SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: H. F. R. M. U.	
*DO<7.0	6.16	6.25	SAMPLE LOCATION: Bank, Thalweg, Midchannel, Open Water	
			HYDRO-MODIFICATION: None, Bridge/Pipes, Concrete Channel, Grade Control, Culvert, Other:	
			HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):		Wet Channel Width (m):
Transfer/Calculated Value From Discharge Worksheet		
Sample ID	Analyte	Midchannel depth (m):
		Stage:
		Wet Channel Width (m):
		Midchannel depth (m):
		Container
		Number
		Notes

See Attached Chain of Custodies



Event ID:

Project ID <del>306</del> Rice Sampling	Field Crew: KN AB
Site ID ①	
Site Location GC2	Sample Type Norm Duplicate Blank
Sample Date June 8, 2017	Sample Matrix Water Sediment
Sample Time 11:30 AM	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky: Green	Brown Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity
Irrigation not observed observed: sprinkler dripper furrow other
Notes

Water Quality Measurements

Time 11:30 AM	TDS (g/L) 305 mg/L	pH 7.61
Temp (°C) 20.005	Salinity (ppt) 0.23	Turbidity (NTU)
Conductivity (mS/cm) .469	DO (mg/L) 7.23	ExoSonde Unit #

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: No applications in adjacent area

Event ID:

Project ID <del>300</del> Rice Samples	Field Crew: KN, AB
Site ID <del>661</del>	
Site Location GCI	Sample Type Norm Duplicate Blank
Sample Date June 8, 2017	Sample Matrix Water Sediment
Sample Time 11:20	Sampler Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky: Green	Brown Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity
Irrigation not observed observed: sprinkler drifter furrow other
Notes

Water Quality Measurements

Time 11:20	TDS (g/L) 300 mg/L	pH 7.67
Temp (°C) 19.67	Salinity (ppt) 0.22	Turbidity (NTU)
Conductivity (mS/cm) 0.461	DO (mg/L) 7.23	ExoSonde Unit #

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: No application activity in area















Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name : BS1  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Mark Lee/ Lauren Short

Date: 6/13/2017  
 FIRST SAMPLE TIME: 1145  
 Arrival Time: 1117  
 Departure Time: 1227  
 Target Lat. & Long.:  
 Actual Lat & Long:  
 Datum:  
 Accuracy (ft / m):

**OBSERVATIONS**

WADEABLE: YES (NO)  
 PICTURE NAME(S):  
 DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, UDK, Other  
 SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other  
 SKY CODE: dea, partly cloudy, overcast, fog, hazy  
 OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other  
 PRECIPITATION: None, Foggy, Drizzle, Rain, Snow  
 WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other  
 PRECIPITATION (last 24 hrs): Unknown, <1", >1", None  
 WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)  
 WATERCOLOR: colorless, green, yellow, brown, other  
 OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1-5cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

Comments:  
 Water Column Thickness: 11' Sample Depth: 6'

PHYSICAL PARAMETERS	SAC	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius):	<u>20.40</u>	<u>20.4</u>	STARTING BANK: LB / RB / NA	
Air Temp (°F):		<u>70's</u>	OCCUPATION METHOD: Walk-in, <u>Bridge</u> , Other:	
*pH>8.5 or <6.5	<u>7.37</u>	<u>7.38</u>	SAMPLING EQUIPMENT: Individ bottle by hand, By pole, Other: <u>ferrous</u>	
*DO<7.0	<u>6.91</u>	<u>6.48</u>	SAMPLE LOCATION: Bank, Thailweg, <u>Midchannel</u> , Open Water	
			HYDRO-MODIFICATION: None, <u>Bridge</u> Pipes, Concrete Channel, Grade Control, Culvert, Other:	
			HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):		Wet Channel Width (m):	Wet Channel Width (m):
Transfer Calculated Value From Discharge Worksheet	Midchannel depth (m):	Stage:	Notes
Sample ID	Analyte	Container	Number

See Attached Chain of Custodies

lost sac YSI while cleaning up



Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name: CBD1  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Mark Lee/ Lauren Short

Date: 6/13/2017  
 FIRST SAMPLE TIME: 1540  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft / m):

Arrival Time: 10:00  
 Departure Time: 10:00  
 10:00

**OBSERVATIONS**

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Grass, Other  
 SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other  
 OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other  
 WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other  
 WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (>4" vis)  
 OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1 cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear partly cloudy, overcast, fog, hazy  
 PRECIPITATION: None, Foggy, Drizzle, Rain, Snow  
 PRECIPITATION (last 24 hrs): Unknown, <1", >1", None  
 WATERCOLOR: colorless, green, yellow, brown, other

Comments:  
 Water Column Thickness: 7' Sample Depth: 3.5'

**PHYSICAL PARAMETERS**

Water Temp (Celsius): 21.78  
 Air Temp (°F): 80's  
 pH: 7.24  
 \*DO<7.0 DO (mg/L): 5.90

SAMPLE COLLECTION Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)  
 STARTING BANK: LB / RB/ NA  
 OCCUPATION METHOD: Walk-in, Bridge, Other:  
 SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: Kemman  
 SAMPLE LOCATION: Bank, Thaliweg, Midchannel, Open Water  
 HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other:  
 HYDROMODLOC: US / DS / NA

**CALCULATED SITE DISCHARGE (cfs):**

Transfer Calculated Value From Discharge Worksheet

Wet Channel Width (m):  
 Midchannel depth (m):  
 Stage:  
 Wet Channel Width (m):  
 Number

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				
				* Sac meter lost/fell in river at previous site







Project No.		Project Name		Task 01	
20154800.003A		RPP- W6D1		M Lee / LE Short	
Date	Sample I.D. Time	Sample I.D.	Matrix	No. of Containers	Type of Containers
MM/DD/YY	HH-MM-SS				
1	06/13/17	1715	SR1-NCL-6-1	1	500 mL
2	06/13/17	0925	SSB-NCL-6-1	1	500 mL
3	06/13/17	1145	BS1-NCL-6-1	1	500 mL
4	06/13/17	1345	CBD5-NCL-6-1	1	500 mL
5	06/13/17	1540	CBD1-NCL-6-1	1	500 mL
6	06/13/17	1100	GC1-NCL-6-1	1	500 mL
7	06/13/17	1120	GC2-NCL-6-1	1	500 mL
8					
9					
10					
11					
12					
13					
14					
15					

Reinquisitioned By:	Date/Time: 6/13/17 1300	Received By: KLF Sample Control
Reinquisitioned By:	Date/Time: 6/15/17 1339	Received By:
Reinquisitioned By:	Date/Time: 6/15/17 1730	Received By: FEDEX

Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	Analysis	Instructions/Remarks
	Thiocarb	DPR sample, see page 2 CoC DPR sample, see page 2 CoC DPR CoC #
		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com



Project No. 20154800.003A Task 01		Project Name RPP- W6D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.) M Lee / LE Short		Samplers: (Signature/Number)		Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1 06/13/17	1540	CBD1-NCL-6-1-D	W	1	500 mL
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time	Received By: KLF Sample Control		
Relinquished By: <i>[Signature]</i>		Date/Time	Received By: <i>[Signature]</i>		
Relinquished By: <i>[Signature]</i>		Date/Time	Received By: FEDEX		
Analysis		Thiobencarb X			
Relinquished By: <i>[Signature]</i>		Instructions/Remarks Please send invoice to KLEINFELDER			
Relinquished By: <i>[Signature]</i>		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			

SAMPLE CHECK-OUT SHEET  
30-008 (4/90)

Today's Date: 6/13/2017

Project ID (Study no.): Rice Samples

Logged out by: Knewhart  
(key data entry person)

Date Delivered: 6/13/2017

Storage location: \_\_\_\_\_  
(see # on outside of storage)

Checked-out by: \_\_\_\_\_

Laboratory Delivering to: DePue Warehouse

Remarks: \_\_\_\_\_

Site	EHAP Sample No.	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comment
	G11-TB		6/13/2017	-	-	-	-	-
		BEN						
		BU						
	G12-TB							
		BEN						
		BU						
ELF pickup @ 1430								



Project No. 20154800.003A Task 01		Project Name RPP- W6D1 and WDR SE-3		Sample I.D.	Matrix	No. of Containers	Type of Containers	Analysis	Receiving Lab: <b>KLF SAMPLE CONTROL</b>
L.P. No. (PO No.)	Samplers: (Signature/Number)	Sample I.D. Time HH-MM-SS	Date MM/DD/YY						
1	06/13/17	1715	SR1-B-6-1	W	1	1-L Amber			Instructions/Remarks <b>See Craig Riddle or Sue Gardner before disturbing these samples</b>
2	06/13/17	0925	SSB-B-6-1	W	4	1-L Amber, 3 40mL VOA			
3	06/13/17	1145	BS1-B-6-1	W	4	1-L Amber, 3 40mL VOA			
4	06/13/17	1345	CBD5-B-6-1	W	4	1-L Amber, 3 40mL VOA			
5	06/13/17	1540	CBD1-B-6-1	W	4	1-L Amber, 3 40mL VOA			
6	06/13/17	1100	GC1-B-6-1	W	1	1-L Amber			
7	06/13/17	1120	GC2-B-6-1	W	1	1-L Amber			
8									
9									
10									
11									
12									
13									
14									
15									
Relinquished By: <i>[Signature]</i>		Date/Time: 6/13/17 1800	Received By: <i>[Signature]</i>		Date/Time: 6/13/17 1800		Instructions/Remarks: <i>KLF Sample Containers</i>		
Relinquished By:		Date/Time:	Received By:		Date/Time:		Send Results To:		
Relinquished By: ENV-02		Date/Time:	Received By:		Date/Time:		CHAIN-OF-CUSTODY		











Event ID:

Project ID 306 <i>Rice Sampling</i>	Field Crew: <i>KN, KP</i>
Site ID <i>GC1</i>	
Site Location <i>GC1</i>	Sample Type <u>Norm</u> Duplicate Blank
Sample Date <i>6/15/17</i>	Sample Matrix <u>Water</u> Sediment
Sample Time <i>10:40 am</i>	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River <u>Creek/Stream</u> <u>Ag Drain</u>
Water Flow	Dry Poned <u>Flowing</u>
Water Color	Clear Murky: <u>Green</u> <u>Brown</u> Black Other
Emergent Vegetation	<u>Absent</u> Present
Floating Macrophytes	<u>Absent</u> Present
Vegetation on the Bank	Absent <u>Present</u>
Substrates	Cement <u>Silt</u> Sand Cobble Other

Crops and Irrigation

Crops in Vicinity <i>Rice</i>
Irrigation <u>not observed</u> observed: sprinkler dripper furrow other
Notes <i>Drainage from west field</i>

Water Quality Measurements

Time <i>10:43 am</i>	TDS <sup>(mg/L)</sup> <i>280</i>	pH <i>7.23</i>
Temp (°C) <i>23.46</i>	Salinity (ppt) <i>0.21</i>	Turbidity (NTU) <i>—</i>
Conductivity (mS/cm) <i>0.432</i>	DO (mg/L) <i>6.48</i>	ExoSonde Unit # <i>1</i>

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_

Event ID:

Project ID <b>306</b> <i>Rice Sampling</i>	Field Crew: <i>KN, KP</i>
Site ID <i>GC2</i>	
Site Location <i>GC2</i>	Sample Type <u>Norm</u> Duplicate Blank
Sample Date <i>6/15/17</i>	Sample Matrix <u>Water</u> Sediment
Sample Time <i>11:00am</i>	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River <u>Creek/Stream</u> Ag Drain
Water Flow	Dry Poned <u>Flowing</u>
Water Color	Clear Murky: Green <u>Brown</u> Black Other
Emergent Vegetation	Absent <u>Present</u>
Floating Macrophytes	<u>Absent</u> Present
Vegetation on the Bank	Absent <u>Present</u>
Substrates	Cement <u>Silt</u> Sand Cobble Other

Crops and Irrigation

Crops in Vicinity <i>Rice</i>
Irrigation <u>not observed</u> observed: sprinkler dripper furrow other
Notes <i>Drainage from field to the west, with tractor on same field</i> <i>Pesticide application</i>

Water Quality Measurements

Time <i>11:02 am</i>	TDS <sup>(mg/L)</sup> <i>269</i>	pH <i>7.42</i>
Temp (°C) <i>24.306</i>	Salinity (ppt) <i>0.20</i>	Turbidity (NTU) <i>—</i>
Conductivity (mS/cm) <i>0.414</i>	DO (mg/L) <i>6.09</i>	ExoSonde Unit # <i>1</i>

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_

3762  
5763







Project No. 20154800.003A Task 01		Project Name RPP- W6D2		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) LE Short/ E. Santos		Instructions/Remarks	
Date MM/DD/YY	Sample I.D. HH-MM-SS	Sample I.D. Matrix	No. of Containers	Type of Containers	Analysis
1	06/15/17 09-30	SR1-NCL-6-2 W	1	500 mL	Thiobencarb X
2	06/15/17 1047	SSB-NCL-6-2 W	1	500 mL	X
3	06/15/17 1218	BS1-NCL-6-2 W	1	500 mL	X
4	06/15/17 1415	CBD5-NCL-6-2 W	1	500 mL	X
5	06/15/17 1607	CBD1-NCL-6-2 W	1	500 mL	X
6	06/15/17 1840	GC1-NCL-6-2 W	1	500 mL	DPR sample, see page 2 CoC X
7	06/15/17 1100	GC2-NCL-6-2 W	1	500 mL	DPR sample, see page 2 CoC X
8					
9					DPR CoC #
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time	Received By: FEDEX		Instructions/Remarks <b>Please send invoice to VALENT LABS</b>
Relinquished By:		Date/Time	Received By:		
Relinquished By:		Date/Time	Received By:		
Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com					

~~DIST~~  
SAMPLE CHECK SHEET

Environmental Monitoring Branch

Study number (project ID): Rice Samples

Sample Tracking Staff Only:

Date received (at warehouse): 6/15/17

Logged In by: (data entry) \_\_\_\_\_

Checked-in by: fn

Data entry date: \_\_\_\_\_

Page 1 of 1

Storage location code: De Pue Warehouse

Remarks:

Samples dropped off De Pue Warehouse!!

Samples were stored in ice chest # \_\_\_\_\_ at check-in.

Site  
9C1

9C2

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
	TB	6/15/17					1
	BEN						2
	BU						3
							4
	TB						5
	BEN						6
	BU						7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22
							23
							24

KIF pickup @ 16405





Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 Station ID & Name: BS1  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Lauren Short/ Mark Lee

Date: 6/20/2017  
 FIRST SAMPLE TIME: 0935  
 Arrival Time: 0920  
 Departure Time: 0948  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft / m):

**OBSERVATIONS**

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, ~~Grk.~~, Other  
 SITE ODOR: ~~None~~, Sulfides, Sewage, Petroleum, Mixed, Other  
 OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, ~~None~~, Other  
 WATER ODOR: ~~None~~, Sulfides, Sewage, Petroleum, Mixed, Other  
 WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (4" vis)  
 OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear, partly cloudy, overcast, fog, hazy  
 PRECIPITATION: None, Foggy, Drizzle, Rain, Snow  
 PRECIPITATION (last 24 hrs): Unknown, <1", >1", None  
 WATERCOLOR: colorless, green, yellow, brown, other

Comments:  
 Water Column Thickness: 12  
 Sample Depth: 6'

PHYSICAL PARAMETERS	SAC 2	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius):	29.44	29.27	STARTING BANK: LB / RB / NA	
Air Temp (°F):		90.5	OCCUPATION METHOD: Walk-in, Bridge, Other:	
*pH>8.5 or <6.5	7.50	7.45	SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: H. K. Korman	
*DO<7.0	4.07	4.27	SAMPLE LOCATION: Bank, Thalweg, Midchannel, Open Water	
			HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: _____	
			HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):		Wet Channel Width (m):
Transfer Calculated Value From Discharge Worksheet		Stage:
		Wet Channel Width (m):

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				

Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name : CBD5  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Lauren Short/ Mark Lee

Date: 6/20/2017  
 FIRST SAMPLE TIME: 1035  
 Target Lat. & Long.:  
 Actual Lat & Long.:  
 Datum:  
 Accuracy (ft / m):

Arrival Time: 1025  
 Departure Time: 1047

**OBSERVATIONS**

WADEABLE: YES / NO

PICTURE NAME/S:

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Unk., Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 6 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

Comments:

Water Column Thickness: 9' Sample Depth: 24'

PHYSICAL PARAMETERS	SAC 2	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius):	29.85	29.60	STARTING BANK: LB / RB/NA	
Air Temp (°F):	90.7		OCCUPATION METHOD: Walk-in, Bridge, Other:	
*pH>8.5 or <6.5	7.80	7.79	SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: H. Fenner	
*DO<7.0	6.00	5.66	SAMPLE LOCATION: Bank, Thailweg, Midchannel, Open Water	
			HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other:	
			HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):		Wet Channel Width (m):	Wet Channel Width (m):
Transfer Calculated Value From Discharge Worksheet		Midchannel depth (m):	Stage:

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				



Event ID:

Project ID <del>306</del> CRC monitoring	Field Crew:
Site ID GCI	SW, KN
Site Location Colusa	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 6/20/17	Sample Matrix <u>Water</u> Sediment
Sample Time 10:05	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River	<u>Creek/Stream</u>	Ag Drain
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	Murky: <u>Green</u>	Brown Black Other
Emergent Vegetation	<u>Absent</u>	Present	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	<u>Silt</u>	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	rice
Irrigation	not observed      observed: sprinkler    dripper    furrow    other
Notes	very hot today (90°+)

Water Quality Measurements

Time	TDS (g/L) 239	pH 7.12
Temp (°C) 27.4342	Salinity (ppt) 0.17	Turbidity (NTU)
Conductivity (mS/cm) 0.367	DO (mg/L) 6.22	ExoSonde Unit #

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: Water very high.

Event ID:

Project ID <del>306</del> CRC sampling	Field Crew:
Site ID GC2	SW, KN
Site Location GC2 Colusa	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 6/20/17	Sample Matrix <u>Water</u> Sediment
Sample Time 10:25	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River <u>Creek/Stream</u>	Ag Drain
Water Flow	Dry Poned <u>Flowing</u>	
Water Color	Clear Murky <u>Green</u>	Brown Black Other
Emergent Vegetation	<u>Absent</u>	Present
Floating Macrophytes	<u>Absent</u>	Present
Vegetation on the Bank	Absent <u>Present</u>	
Substrates	Cement <u>Silt</u>	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	very hot (90°+) low water level, sonde on creek bed

Water Quality Measurements

Time	TDS (g/L) 302 mg/L	pH 7.43
Temp (°C) 28.197	Salinity (ppt) 0.22	Turbidity (NTU)
Conductivity (mS/cm) 0.464	DO (mg/L) 5.80	ExoSonde Unit # 2

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: Water low - no base from pipe



KLEINFELDER  
INSTRUMENT CALIBRATION LOG

Sampler Name/No.: L. Short, M. Lee

Date: 6/20/2017

Project No.: 20154800.003A-01

Job Name: RPP 2017

Calibration  
Start Time: 0555

		pH Meter: YSI-SAC 2				Temp. via YSI		Temp. via Thermometer		mVpH (pH 7)		mVpH (pH10)		EC Meter: YSI-SAC 2			
Reading (initial)	Calibration (initial)	Reading (intermediate)	Calibration (intermediate)	Reading (end of day)	Time	Temp. via Thermometer	Temp. via YSI Meter	pH7	pH10	pH10	mVpH (pH 7)	mVpH (pH10)	Reading (initial)	Calibration (initial)	Reading (intermediate)	Calibration (intermediate)	Reading (end of day)
					0620		31.38	7.05	9.94	9.94	-2.7	-179.3	1434	1434			
					0645		30.46	7.00	10.00	10.00	-2.6	-179.3	1413	1413			
					1335		36.23	6.96	9.95	9.95	-0.4	-179.4	1415	1415			

Comments:

Turbidity Meter (make/number):		D.O. Meter: YSI-SAC 2	
NTU	NTU	Barometric Pressure: <u>756.9</u> mmHg	mg/L
Reading (Initial)			%
Calibration		Reading (initial): <u>8.39</u>	<u>103.5</u>
		Reading (adj.): <u>8.09</u>	<u>99.6</u>
		Intermediate Reading (initial):	
		Intermediate Reading (adj.):	

KLEINFELDER  
INSTRUMENT CALIBRATION LOG

Sampler Name/No.: L. Short, M. Lee

Date: 6/20/2017

Project No.: 20154800.003A-01

Job Name: RPP 2017

Calibration Start Time: 0555

pH Meter: YSI-SR										EC Meter: YSI-SR				
Reading (initial)	Calibration (initial)	Reading (intermediate)	Calibration (intermediate)	Reading (end of day)	Time	Temp. via Thermometer		Temp. via YSI Meter	pH7	mVpH (pH 7)	pH10	mVpH (pH10)	1413 umho	
						Reading	Calibration						Reading (initial)	Calibration (initial)
					0618			31.42	7.88	-52.7	9.67	-213.1	Reading (initial)	1442
					0645			26.22	7.00	-52.6	10.00	-213.1	Calibration (initial)	1413
					1335			36.51	7.04	-54.5	9.82	-206.1	Reading (intermediate)	
													Calibration (intermediate)	
													Reading (end of day)	1417

Comments:

Turbidity Meter (make/number):				D.O. Meter: YSI-SR			
Reading (Initial)	Calibration	Reading (intermediate)	Calibration (intermediate)	Barometric Pressure: <u>751.6</u> mmHg	mg/L	%	
				Reading (initial):	8.47	103.8	
				Reading (adj.):	8.07	98.9	
				Intermediate Reading (initial):			
				Intermediate Reading (adj.):			



COC# 243754

Project No.		Project Name		Analysis		Receiving Lab:		
20154800.003A		RPP- W7D1				North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649		
Task 01		Sample I.D.		Matrix		Instructions/Remarks		
L.P. No. (PO No.)		Sample I.D. Time HH-MM-SS		Matrix				
M. Leed L. Short								
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers	Analysis	Instructions/Remarks	
06/20/17	0725	SR1-NCL-7-1	W	1	500 mL	Thiobencarb X		
06/20/17	0830	SSB-NCL-7-1	W	1	500 mL	X		
06/20/17	0935	BS1-NCL-7-1	W	1	500 mL	X		
06/20/17	1035	CBD5-NCL-7-1	W	1	500 mL	X		
06/20/17	1210	CBD1-NCL-7-1	W	1	500 mL	X		
06/20/17	1005	GC1-NCL-7-1	W	1	500 mL	X	DPR sample, see page 2 CoC	
06/20/17	1025	GC2-NCL-7-1	W	1	500 mL	X	DPR sample, see page 2 CoC	
8								
9							DPR CoC #	
10								
11								
12								
13								
14								
15								
Relinquished By: <i>Madd</i>		Date/Time: 6/20/17 1400	Received By: <i>K.H. Sample Central #2</i>		Instructions/Remarks: Please send invoice to VALENT LABS			Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com
Relinquished By:		Date/Time:	Received By:					
Relinquished By:		Date/Time:	Received By:					



COC# 593811

Project No.		Project Name		Analysis		Receiving Lab:	
20154800.003A		RPP- W7D1				North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
Task 01		Samplers: (Signature/Number)				Instructions/Remarks	
L.P. No. (PO No.)		<i>M. Lee/L. Short</i>				Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers		
06/20/17	1356	CRC1-NCL-7-1	W	1	500 mL	Thiobencarb	X
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
Relinquished By: <i>Mark</i>		Date/Time: 6-20-17 1400		Received By: <i>KLP Sample Control #2</i>		Instructions/Remarks	
Relinquished By:		Date/Time:		Received By:		Please send invoice to <b>KLEINFELDER</b>	
Relinquished By:		Date/Time:		Received By:		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	





Project No. 20154800.003A Task 01		Project Name RPP-W7D1		Sample I.D.	Matrix	No. of Containers	Type of Containers	Analysis	Receiving Lab: <b>KLF SAMPLE CONTROL</b>
L.P. No. (PO No.)	Samplers: (Signature/Number)	Date MM/DD/YY	Sample I.D. Time HH-MM-SS						
	<i>M. Lee / L. Short</i>								
1		06/20/17	0725	SR1-B-7-1	W	1	1-L Amber		See Craig Riddle or Sue Gardner before disturbing these samples
2		06/20/17	0630	SSB-B-7-1	W	1	1-L Amber		
3		06/20/17	0935	BS1-B-7-1	W	1	1-L Amber		
4		06/20/17	1035	CBD5-B-7-1	W	1	1-L Amber		
5		06/20/17	1210	CBD1-B-7-1	W	1	1-L Amber		
6		06/20/17	1005	GC1-B-7-1	W	1	1-L Amber		
7		06/20/17	1025	GC2-B-7-1	W	1	1-L Amber		
8									
9									
10									
11									
12									
13									
14									
15									
Relinquished By: <i>M. Lee</i>		Date/Time: 06/20/17 11400		Received By: <i>KLF Sample Control #2</i>		Send Results To:			
Relinquished By:		Date/Time:		Received By:		Instructions/Remarks			
Relinquished By:		Date/Time:		Received By:		CHAIN-OF-CUSTODY			









Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name : CBD1  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Lauren Short/ Mark Lee

Date: 6/22/2017  
 FIRST SAMPLE TIME: 2:25  
 Arrival Time: 2:00  
 Departure Time: 2:40  
 Target Lat. & Long.:  
 Actual Lat & Long:  
 Datum:  
 Accuracy (ft / m):

**OBSERVATIONS**

WADEABLE: YES / (NO)  
 PICTURE NAME/S:

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, (Unk), Other  
 SITE ODOR: (None), Sulfides, Sewage, Petroleum, Mixed, Other  
 OTHER PRESENCE: (Vascular), Nonvascular, OilySheen, Foam, Trash, None, Other  
 WATER ODOR: (None), Sulfides, Sewage, Petroleum, Mixed, Other  
 WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)  
 SKY CODE: clear, partly cloudy, overcast, fog, hazy  
 PRECIPITATION: None, Foggy, Drizzle, Rain, Snow  
 PRECIPITATION (last 24 hrs): Unknown, <1", >1", None  
 WATERCOLOR: colorless, green, yellow, brown, other  
 OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

Comments:  
 Water Column Thickness: 10 Sample Depth: 5'

**PHYSICAL PARAMETERS**

Water Temp (Celsius):	SAC 2	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Air Temp (°F):	30.28	32.20	STARTING BANK: LB / RB / NA	
*pH>8.5 or <6.5	7.90	7.18	OCCUPATION METHOD: Walk-in, Bridge, Other:	
*DO<7.0 DO (mg/L):	6.06	6.33	SAMPLING EQUIPMENT: Indiv bottle by hand, By pole, Other: <i>1.5m</i>	
			SAMPLE LOCATION: Bank, Thailweg, Midchannel, Open Water	
			HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other:	
			HYDROMODLOC: US / DS / NA	

**CALCULATED SITE DISCHARGE (cfs):**

Transfer Calculated Value From Discharge Worksheet	Wet Channel Width (m):	Wet Channel Width (m):
	Midchannel depth (m):	Stage:

Sample ID	Analyte	Container	Number	Notes
See Attached Chain of Custodies				

Event ID:

Project ID <b>306</b> <i>Rice Sampling, CRCC</i>	Field Crew:
Site ID <i>GC2</i>	<i>KN, KP</i>
Site Location <i>Glen-Colusa</i>	Sample Type <input checked="" type="radio"/> Norm Duplicate Blank
Sample Date <i>6/22/17</i>	Sample Matrix <input checked="" type="radio"/> Water Sediment
Sample Time <i>10:40 am</i>	Sampler Hand <input checked="" type="radio"/> Pole

Water Body Conditions

Water Body Type	River <input type="radio"/> <input checked="" type="radio"/> Creek/Stream <input checked="" type="radio"/> Ag Drain
Water Flow	Dry <input type="radio"/> Ponded <input type="radio"/> <input checked="" type="radio"/> Flowing
Water Color	Clear <input type="radio"/> Murky: Green <input type="radio"/> Brown <input type="radio"/> Black <input type="radio"/> Other <input type="radio"/>
Emergent Vegetation	Absent <input type="radio"/> <input checked="" type="radio"/> Present
Floating Macrophytes	<input checked="" type="radio"/> Absent Present <input type="radio"/>
Vegetation on the Bank	Absent <input type="radio"/> <input checked="" type="radio"/> Present
Substrates	Cement <input type="radio"/> <input checked="" type="radio"/> Silt Sand <input checked="" type="radio"/> Cobble Other <input type="radio"/>

Crops and Irrigation

Crops in Vicinity <i>Rice</i>
Irrigation <input checked="" type="radio"/> not observed observed: sprinkler dripper furrow other
Notes

Water Quality Measurements

Time <i>10:42 am</i>	TDS <sup>(mg/L)</sup> <i>307</i>	pH <i>7.66</i>
Temp (°C) <i>26.738</i>	Salinity (ppt) <i>0.23</i>	Turbidity (NTU) <i>—</i>
Conductivity (mS/cm) <i>0.471</i>	DO (mg/L) <i>6.21</i>	ExoSonde Unit # <i>1</i>

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments:

*Water dropped since Tuesday 6/20/17  
No flow from field pipe.*

Event ID:

Project ID <del>306</del> Rice Sampling CR	Field Crew: KN, KP
Site ID GC 1	
Site Location Glen Colusa	Sample Type <del>Norm</del> Duplicate Blank
Sample Date 6/22/17	Sample Matrix <u>Water</u> Sediment
Sample Time 10:25 am	Sampler Hand <u>Pote</u>

Water Body Conditions

Water Body Type	River	<u>Creek</u> /Stream	<u>Ag Drain</u>
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	Murky: <u>Green</u> <u>Brown</u>	Black Other
Emergent Vegetation	<u>Absent</u>	Present	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	<u>Silt</u>	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	<u>Rice</u>
Irrigation	<u>not observed</u> observed: sprinkler dripper furrow other
Notes	

Water Quality Measurements

Time 10:28	TDS <sup>(mg/L)</sup> <del>(g/L)</del> 300	pH 7.53
Temp (°C) 26.250	Salinity (ppt) .22	Turbidity (NTU) —
Conductivity (mS/cm) 0.462	DO (mg/L) 5.52	ExoSonde Unit # 2

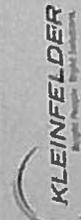
Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: Drainage from rice field to the west.



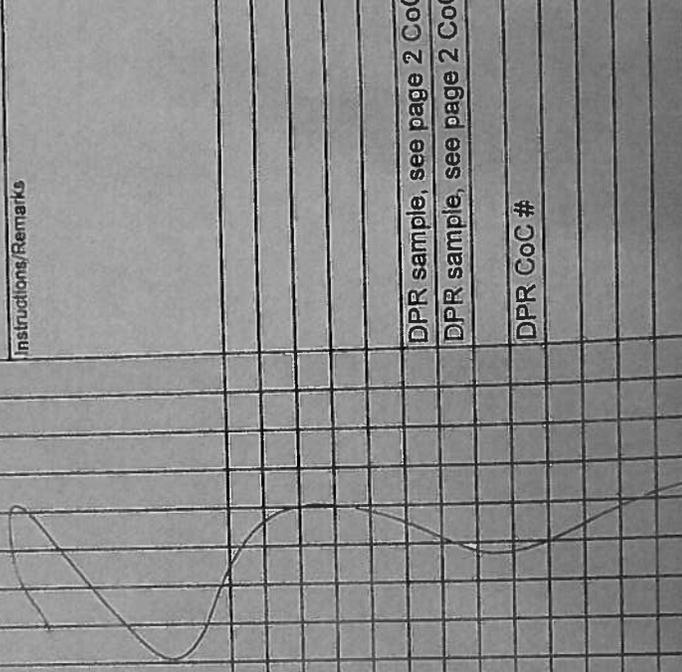




COC# 928174

Project No. 20154800 003A Task 01		Project Name RPP-W7D2		Receiving Lab North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
LP No. (PO No.)	Samplers (Signature/Number) M Lee / L. Short	Sample I.D.	Matrix	No. of Containers	Type of Containers
Date MM/DD/YY	Sample I.D. Time HH:MM:SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1	06/22/17 0715	SR1-NCL-7-2	W	1	500 mL
2	06/22/17 0830	SSB-NCL-7-2	W	1	500 mL
3	06/22/17 0925	BS1-NCL-7-2	W	1	500 mL
4	06/22/17 1025	CBD5-NCL-7-2	W	1	500 mL
5	06/22/17 1225	CBD1-NCL-7-2	W	1	500 mL
6	06/22/17 1225	GC1-NCL-7-2	W	1	500 mL
7	06/22/17 1240	GC2-NCL-7-2	W	1	500 mL
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time: 06/17/1500	Received By: <i>[Signature]</i>	Instructions/Remarks: Please send invoice to VALENT LABS	
Relinquished By:		Date/Time:	Received By:	Send Results To: rfirevod@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
Relinquished By:		Date/Time:	Received By:	DPR sample, see page 2 CoC DPR sample, see page 2 CoC DPR CoC #	

Analysis



CHAIN-OF-CUSTODY

**SAMPLE CHECK-OUT SHEET**

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): Rice Samples Logged out by (data entry): \_\_\_\_\_

Date delivered to lab: 6/22/17 Data entry date: \_\_\_\_\_

Checked-out by: K Newhart Storage location code: \_\_\_\_\_

Laboratory delivering To: DePue Page 1 of 1

Remarks: Dropped off at DePue Warehouse

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
6701	TB	6/22/17				X	1
	Ben						2
	BU						3
662	TB						4
	Ben						5
	BU						6
							7
							8
							9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22











Event ID: *Rice CRC Sampling*

Project ID <del>355</del>	Field Crew: <i>KH, KH</i>
Site ID <i>GCT</i>	
Site Location	Sample Type <input checked="" type="radio"/> Norm Duplicate Blank
Sample Date <i>6/27/2017</i>	Sample Matrix <input checked="" type="radio"/> Water Sediment
Sample Time <i>10:19</i>	Sampler Hand <input checked="" type="radio"/> Pole

**Water Body Conditions**

Water Body Type	River <input checked="" type="radio"/> Creek/Stream <input checked="" type="radio"/> Ag Drain
Water Flow	Dry Ponded <input checked="" type="radio"/> Flowing
Water Color	Clear Murky: Green <input checked="" type="radio"/> Brown Black Other
Emergent Vegetation	Absent <input checked="" type="radio"/> Present
Floating Macrophytes	<input checked="" type="radio"/> Absent Present
Vegetation on the Bank	Absent <input checked="" type="radio"/> Present
Substrates	Cement <input checked="" type="radio"/> Silt Sand <input checked="" type="radio"/> Cobble Other

**Crops and Irrigation**

Crops in Vicinity	<i>Rice</i>
Irrigation	<input checked="" type="radio"/> not observed observed: sprinkler dripper furrow other
Notes	

**Water Quality Measurements**

Time <i>10:24</i>	TDS (g/L) <i>286 mg/L</i>	pH <i>6.73</i>
Temp (°C) <i>24.133</i>	Salinity (ppt) <i>0.21</i>	Turbidity (NTU) <i>-</i>
Conductivity (mS/cm) <i>0.439</i>	DO (mg/L) <i>6.03</i>	ExoSonde Unit # <i>1</i>

**Sample Numbers**

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: *Water flowing from fields left of drain*

Event ID: Rice CRC Sampling

Project ID: <del>208</del>	Field Crew: <u>KN, KH</u>
Site ID <u>GC2</u>	
Site Location	Sample Type <u>Norm</u> Duplicate Blank
Sample Date <u>06/27/2017</u>	Sample Matrix <u>Water</u> Sediment
Sample Time <u>10:35am</u>	Sampler Hand <u>Pole</u>

**Water Body Conditions**

Water Body Type	River <u>Creek/Stream</u> <u>Ag Drain</u>
Water Flow	Dry Ponded <u>Flowing</u>
Water Color	Clear Murky: Green Brown Black Other
Emergent Vegetation	Absent Present
Floating Macrophytes	Absent Present
Vegetation on the Bank	Absent Present
Substrates	Cement Silt Sand Cobble Other

**Crops and Irrigation**

Crops in Vicinity <u>Rice</u>
Irrigation not observed observed: sprinkler dripper furrow other
Notes

**Water Quality Measurements**

Time <u>1040</u>	TDS (g/L) <u>302 mg/L</u>	pH <u>7.24</u>
Temp (°C) <u>24.025</u>	Salinity (ppt) <u>0.22</u>	Turbidity (NTU) <u>-</u>
Conductivity (mS/cm) <u>0.465</u>	DO (mg/L) <u>6.22</u>	ExoSonde Unit # <u>1</u>

**Sample Numbers**

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_









COC# 358429

Project No. 20154800.003A Task 01		Project Name RPP- W8D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) Mark Lee/ Mehdi Galouei		Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1 06/27/17	0925	SSB-NCL-8-1-D	W	1	500 mL
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>Mark Lee</i>		Date/Time 6-27-17 1830		Received By: FEDEX	
Relinquished By:		Date/Time		Received By:	
Relinquished By:		Date/Time		Received By:	
Analysis			Instructions/Remarks		
Thiobencarb			Please send invoice to KLEINFELDER		
Send Results To:			rffiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): CRC Rice      Logged out by (data entry): \_\_\_\_\_  
 Date delivered to lab: 06/27/2017      Data entry date: \_\_\_\_\_  
 Checked-out by: KN, KH      Storage location code: DePue Warehouse  
 Laboratory delivering To: DePue WH      Page 1 of 1

Remarks:

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
G1C1	---						1
TB	P	6/27/17	WAT				2
BEN	P	↓	↓				3
BU	BU	↓	↓				4
							5
G1C2							6
TB	P	6/27/17	WAT				7
BEN	P	↓	↓				8
BU	BU	↓	↓				9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22



Project No. 20154800.003A Task 01		Project Name RPP-W8D1		No. of Containers	Type of Containers	Analysis	Receiving Lab: <b>KLF SAMPLE CONTROL</b>	
L.P. No. (PO No.)	Samplers: (Signature/Number) Mark Leer/ Mehdi Galouei	Sample I.D. Time HH-MM-SS	Sample I.D.					Matrix
1	06/27/17	0815	SR1-B-8-1	1	1-L Amber		See Craig Riddle or Sue Gardner before disturbing these samples	
2	06/27/17	0925	SSB-B-8-1	4	1-L Amber, 3 40mL VOA			
3	06/27/17	1115	BS1-B-8-1	4	1-L Amber, 3 40mL VOA			
4	06/27/17	1245	CBD5-B-8-1	4	1-L Amber, 3 40mL VOA			
5	06/27/17	1450	CBD1-B-8-1	4	1-L Amber, 3 40mL VOA			
6	06/27/17	1019	GC1-B-8-1	1	1-L Amber			
7	06/27/17	1035	GC2-B-8-1	1	1-L Amber			
8								
9								
10								
11								
12								
13								
14								
15								
Relinquished By: <i>Mark Leer</i>		Date/Time: 6-27-17 1800	Received By: KLF Sample Control		Instructions/Remarks			Send Results To:
Relinquished By:		Date/Time:	Received By:		Instructions/Remarks			
Relinquished By:		Date/Time:	Received By:		Instructions/Remarks			







Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC  
 StationID & Name : CBD5  
 Project ID: 20154800.003A-01  
 Sampling Crew (and Agency): Lauren Short/ Mark Lee

Date: 7/5/2017  
 FIRST SAMPLE TIME: 110  
 Target Lat. & Long.:  
 Actual Lat & Long:  
 Datum:  
 Accuracy (ft / m):

Arrival Time: 1057  
 Departure Time: 1117

WADEABLE: YES (NO)  
 PICTURE NAME/S:

OBSERVATIONS

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Jpk., Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:  
 Water Column Thickness: 9' Sample Depth: 4.5'

PHYSICAL PARAMETERS

SAC 2	SR	SAMPLE COLLECTION	Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)
Water Temp (Celsius): 25.57	25.76	STARTING BANK: LB / RB/NA	
Air Temp (°F): 80's		OCCUPATION METHOD: Walk-in, Bridg, Other:	
*pH>8.5 or <6.5	7.72	SAMPLING EQUIPMENT: indiv bottle by hand, By pole, Other: V. KUMAR	
*DO<7.0	6.91	SAMPLE LOCATION: Bank, Thalweg, Middlechannel, Open Water	
		HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other: _____	
		HYDROMODLOC: US / DS / NA	

CALCULATED SITE DISCHARGE (cfs):

Wet Channel Width (m):	Wet Channel Width (m):
Midchannel depth (m):	Stage:

Transfer Calculated Value From Discharge Worksheet

Sample ID	Analyte	Container	Number	Notes
√				

See Attached Chain of Custodies



Event ID:

Project ID <del>306</del> CRC sampling	Field Crew:
Site ID GC1	SW, KN
Site Location Colusa County	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 7/5/17	Sample Matrix <u>Water</u> Sediment
Sample Time 10:20	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River	<u>Creek/Stream</u>	Ag Drain
Water Flow	Dry	Ponded	<u>Flowing</u>
Water Color	Clear	Murky: Green	<u>Brown</u> Black Other
Emergent Vegetation	<u>Absent</u>	Present	
Floating Macrophytes	<u>Absent</u>	Present	
Vegetation on the Bank	Absent	<u>Present</u>	
Substrates	Cement	<u>Silt</u>	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	Crop duster applying/flying on adjacent field

Water Quality Measurements

Time 10:20-19	TDS (g/L) 279 mg/L	pH 7.60
Temp (°C) 24.253	Salinity (ppt) 0.21	Turbidity (NTU)
Conductivity (mS/cm) .430	DO (mg/L) 6.39	ExoSonde Unit # 2

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_

Event ID:

Project ID <b>306 CRC sampling</b>	Field Crew:
Site ID <b>GC 2</b>	<b>SW, KN</b>
Site Location <b>Colusa County</b>	Sample Type <b>Norm</b> Duplicate Blank
Sample Date <b>7/5/17</b>	Sample Matrix <b>Water</b> Sediment
Sample Time <b>10:40</b>	Sampler Hand <b>Pole</b>

Water Body Conditions

Water Body Type	River <b>Creek/Stream</b> Ag Drain
Water Flow	Dry Ponded <b>Flowing</b>
Water Color	Clear Murky: Green <b>Brown</b> Black Other
Emergent Vegetation	<b>Absent</b> Present
Floating Macrophytes	<b>Absent</b> Present
Vegetation on the Bank	Absent <b>Present</b>
Substrates	Cement <b>Silt</b> Sand Cobble Other

Crops and Irrigation

Crops in Vicinity <b>rice</b>
Irrigation not observed observed: sprinkler dripper furrow other
Notes

Water Quality Measurements

Time <b>10:39</b>	TDS (g/L) <b>265 mg/L</b>	pH <b>7.84</b>
Temp (°C) <b>25.012</b>	Salinity (ppt) <b>0.19</b>	Turbidity (NTU)
Conductivity (mS/cm) <b>0.408</b>	DO (mg/L) <b>5.74</b>	ExoSonde Unit # <b>2</b>

Sample Numbers

Organophosphates (OP-U)	Phenoxy (PX)	Triazines/Metribuzin (TR)
Dinitroaniline (DN)/Oxyfluorfen (OXY)	Imidacloprid	Backup (BU)

Comments: \_\_\_\_\_









Project No. 20154800.003A Task 01		Project Name RPP- W9D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) Mark Lee/ Lauren Short		Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
07/05/17	1230	CBD1-NCL-9-1-RB	W	1	500 mL
<i>Mark Lee</i>					
1					Thiocarb X
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>Mark Lee</i>	Date/Time 7/5/17 1600	Received By: FEDEX		Instructions/Remarks Please send invoice to KLEINFELDER	
Relinquished By:	Date/Time	Received By:		Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
Relinquished By:	Date/Time	Received By:			

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): CR Rice Samples logged out by (data entry): KN, SW  
 Date delivered to lab: 7/5/2017 Data entry date: \_\_\_\_\_  
 Checked-out by: KN, SW Storage location code: \_\_\_\_\_  
 Laboratory delivering To: DePue Warehouse Page 1 of 1

Remarks: Dropped off samples @ 11:20 am.

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
GC1		7/5/17					1
TB			P				2
BEN			P				3
BU			BU				4
							5
GC2		7/5/17					6
TB			P				7
BEN			P				8
BU			BU				9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22

KIF pick up @ 1130



Project No. 20154800.003A Task 01		Project Name RPP- W9D1		Receiving Lab: <b>KLF SAMPLE CONTROL</b>	
L.P. No. (PO No.)		Samplers: (Signature/Number) Mark Lee/ Lauren Short		Instructions/Remarks	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
1	07/05/17 0800	SR1-B-9-1	W	1	1-L Amber
2	07/05/17 0915	SSB-B-9-1	W	1	1-L Amber
3	07/05/17 1010	BS1-B-9-1	W	1	1-L Amber
4	07/05/17 1110	CBD5-B-9-1	W	1	1-L Amber
5	07/05/17 1230	CBD1-B-9-1	W	1	1-L Amber
6	07/05/17 1020	GC1-B-9-1	W	1	1-L Amber
7	07/05/17 1040	GC2-B-9-1	W	1	1-L Amber
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>Mark Lee</i>		Date/Time: 7/5/17 1500	Received By: KLF Sample Control		Instructions/Remarks
Relinquished By:		Date/Time:	Received By:		
Relinquished By: ENV-02		Date/Time:	Received By:		

**HOLD**

*Mark Lee*

See Craig Riddle or Sue Gardner before disturbing these samples

Send Results To:

**CHAIN-OF-CUSTODY**



Rice Pesticides Program - Field Data Sheet - Water Sample Collection

Coalition Name: CRC

StationID & Name : SSB

Project ID: 20154800.003A-01

Sampling Crew (and Agency): Lauren Short/ Mark Lee

Date: 7/11/2017

FIRST SAMPLE TIME: 0845

Target Lat. & Long.:

Actual Lat & Long:

Datum: Accuracy (ft / m):

Arrival Time: 0930 Departure Time: 0955

OBSERVATIONS

DOMINANT SUBSTRATE: Concrete, Cobble, Gravel, Sand, Mud, Link, Other

SITE ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

OTHER PRESENCE: Vascular, Nonvascular, OilySheen, Foam, Trash, None, Other

WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other

WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)

OBSERVED FLOW: NA, Dry Waterbody Bed, No Observed Flow, Isolated Pool, 0.1 - 1cfs, 1 - 5 cfs, 5 - 20 cfs, 20 - 50 cfs, 50 - 200 cfs, >200cfs

WADEABLE: YES / NO

PICTURE NAME/S:

SKY CODE: clear, partly cloudy, overcast, fog, hazy

PRECIPITATION: None, Foggy, Drizzle, Rain, Snow

PRECIPITATION (last 24 hrs): Unknown, <1", >1", None

WATERCOLOR: colorless, green, yellow, brown, other

Comments:

Water Column Thickness: 7

Sample Depth: ~3.5

PHYSICAL PARAMETERS

Water Temp (Celsius): 26.67

Air Temp (°F): 70.5

pH: 7.62

\*DO<7.0 DO (mg/L): 4.96

SAMPLE COLLECTION Sample Depth (circle one): 0.1 m (subsurface grab) -88 (integrated)

STARTING BANK: LB / RB / NA

OCCUPATION METHOD: Walk-in, Bridge, Other:

SAMPLING EQUIPMENT: Individ bottle by hand, By pole, Other: Kobalt

SAMPLE LOCATION: Bank, Thailweg, Midchannel, Open Water

HYDRO-MODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Other:

HYDROMODLOC: US / DS / NA

CALCULATED SITE DISCHARGE (cfs):

Transfer Calculated Value From Discharge Worksheet

Wet Channel Width (m):

Stage:

Wet Channel Width (m):

Midchannel depth (m):

Sample ID Analyte

Container

Number

Notes

See Attached Chain of Custodies







Event ID:

Project ID 306	Rice Samples	Field Crew:	
Site ID	GC 81 KW		KN, SW
Site Location	Willow Creek	Sample Type	Norm Duplicate Blank
Sample Date	7/11/2017	Sample Matrix	Water Sediment
Sample Time	10:30	Sampler	Hand Pole

Water Body Conditions

Water Body Type	River	Creek/Stream	Ag Drain
Water Flow	Dry	Ponded	Flowing
Water Color	Clear	Murky: Green	Brown Black Other
Emergent Vegetation	Absent	Present	
Floating Macrophytes	Absent	Present	
Vegetation on the Bank	Absent	Present	
Substrates	Cement	Silt	Sand Cobble Other

Crops and Irrigation

Crops in Vicinity	Rice
Irrigation	not observed observed: sprinkler dripper furrow other
Notes	Drainage from left side fields.

Water Quality Measurements

Time	10:30	TDS (g/L)	281	pH	7.72
Temp (°C)	25.183	Salinity (ppt)	0.21	Turbidity (NTU)	—
Conductivity (mS/cm)	0.433	DO (mg/L)	6.11	ExoSonde Unit #	2

Sample Numbers

<del>Organophosphates (OP-U)</del>	<del>Phenoxy (PX)</del>	<del>Triazines/Metribuzin (TR)</del>
<del>Dinitroaniline (DN)/Oxyfluorfen (OXY)</del>	<del>Imidacloprid</del>	<del>Backup (BU)</del>

Comments: \_\_\_\_\_

Event ID:

Project ID <del>305</del> Rice Samples	Field Crew: KN, SW
Site ID GCR <sup>REN</sup>	
Site Location — Bouvide Creek	Sample Type <u>Norm</u> Duplicate Blank
Sample Date 7/11/2017	Sample Matrix <u>Water</u> Sediment
Sample Time 11:20	Sampler Hand <u>Pole</u>

Water Body Conditions

Water Body Type	River <u>Creek/Stream</u> Ag Drain
Water Flow	Dry Ponded <u>Flowing</u>
Water Color	Clear Murky: Green <u>Brown</u> Black Other
Emergent Vegetation	Absent <u>Present</u>
Floating Macrophytes	Absent <u>Present</u>
Vegetation on the Bank	Absent <u>Present</u>
Substrates	Cement <u>Silt</u> <u>Sand</u> <u>Cobble</u> Other

Crops and Irrigation

Crops in Vicinity	Rice
Irrigation	not observed <u>observed</u> : sprinkler drifter furrow other
Notes	Water coming from field drain pipe

Water Quality Measurements

Time 11:20	TDS (g/L) 277	pH 7.81
Temp (°C) 25.965	Salinity (ppt) 0.20	Turbidity (NTU) —
Conductivity (mS/cm) 0.425	DO (mg/L) 5.53	ExoSonde Unit # 2

Sample Numbers

<del>Organophosphates (OP-U)</del>	<del>Phenoxy (PX)</del>	<del>Triazines/Metribuzin (TR)</del>
<del>Dinitroaniline (DN)/Oxyfluorfen (OXY)</del>	<del>Imidacloprid</del>	<del>Backup (BU)</del>

Comments: \_\_\_\_\_

KLEINFELDER  
INSTRUMENT CALIBRATION LOG

Sampler Name/No.: Mark Lee/ Lauren Short

Date: 7/11/2017

Project No.: 20154800.003A-01

Job Name: RPP 2017

Calibration  
Start Time: 0600

		pH Meter: YSI-SAC2				EC Meter: YSI-SAC2			
	Time	Temp. via Thermometer	Temp. via YSI Meter	pH7	mVpH (pH 7)	pH10	mVpH (pH10)	Reading (initial)	1413 umho
Reading (initial)	0620		28.43	7.01	-2.8	10.01	-179.0	1390	
Calibration (initial)	0630		28.23	7.00	-2.5	10.00	-178.7	1413	
Reading (intermediate)								Reading (intermediate)	
Calibration (intermediate)								Calibration (intermediate)	
Reading (end of day)	1500		53.37	7.00	-2.6	10.00	-182.3	Reading (end of day)	1460

Comments:

Turbidity Meter (make/number): \_\_\_\_\_

D.O. Meter: YSI-SAC2

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Reading (Initial)

mg/L

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Calibration

%

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Reading (Initial)

Reading (initial): 9.50

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Calibration

%

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Reading (Initial)

Reading (adj.): 8.84

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg

Calibration

%

\_\_\_\_ NTU

\_\_\_\_ NTU

Battery Check

Barometric Pressure: 756.9 mmHg





COC# 458719

Project No. 20154800.003A Task 01		Project Name RPP- W10D1		Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) Mark Leer/ Lauren Short		Instructions/Remarks	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	No. of Containers	Type of Containers
07/11/17	0735	SR1-NCL-10-1	W	1	500 mL
07/11/17	0845	SSB-NCL-10-1	W	1	500 mL
07/11/17	0955	BS1-NCL-10-1	W	1	500 mL
07/11/17	1050	CBD5-NCL-10-1	W	1	500 mL
07/11/17	1355	CBD1-NCL-10-1	W	1	500 mL
07/11/17	1030	GC1-NCL-10-1	W	1	500 mL
07/11/17	1120	GC2-NCL-10-1	W	1	500 mL
8					
9					
10					
11					
12					
13					
14					
15					
Relinquished By: <i>[Signature]</i>		Date/Time: 7/11/17 1600	Received By: FEDEX		
Relinquished By:		Date/Time:	Received By:		
Relinquished By:		Date/Time:	Received By:		
Analysis					
Thiobencarb					
DPR sample, see page 2 CoC					
DPR sample, see page 2 CoC					
DPR CoC #					
Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com					
Instructions/Remarks Please send invoice to VALENT LABS					

SAMPLE CHECK-OUT SHEET

STATE OF CALIFORNIA  
DEPARTMENT OF PESTICIDE REGULATION

Environmental Monitoring Branch  
(916) 322-3082

Study number (project ID): Rice(CRE) Logged out by (data entry): KN  
 Date delivered to lab: 7/11/2017 Data entry date: 7/11/17  
 Checked-out by: KN Storage location code: DePue Warehouse  
 Laboratory delivering To: Kleinfelder Page 1 of 1

Remarks: Dropped samples at DePue Warehouse

EM Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments
9C1	TB	P	7/11/17	WAT	ILAMB	X	1
	BEN	P	↓	↓	↓		2
	BU	BU	↓	↓	↓		3
							4
9C2	TB	P	7/11/17	WAT	ILAMB		5
	BEN	P	↓	↓	↓		6
	BU	BU	↓	↓	↓		7
							8
	KLF	pick up		@	1230		9
							10
							11
							12
							13
							14
							15
							16
							17
							18
							19
							20
							21
							22



Appendix E-2  
North Coast (Valent sub) Results



**NORTH COAST  
LABORATORIES LTD.**

May 22, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W1D1

Order No.: 1705178

Invoice No.: 133684

PO No.:

ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-1-1
02A	SSB-NCL-1-1
03A	BS1-NCL-1-1
04A	CBD5-NCL-1-1
05A	CBD1-NCL-1-1
06A	GC1-NCL-1-1
07A	GC2-NCL-1-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

Date: 22-May-2017

WorkOrder: 1705178

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-1-1

Lab ID: 1705178-01A

Received: 5/10/2017

Collected: 5/9/2017 08:55

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	1.0	5/11/2017	5/18/2017

Client Sample ID: SSB-NCL-1-1

Lab ID: 1705178-02A

Received: 5/10/2017

Collected: 5/9/2017 10:17

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	1.0	5/11/2017	5/18/2017

Client Sample ID: BS1-NCL-1-1

Lab ID: 1705178-03A

Received: 5/10/2017

Collected: 5/9/2017 11:37

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.49	µg/L	0.99	5/11/2017	5/18/2017

Client Sample ID: CBD5-NCL-1-1

Lab ID: 1705178-04A

Received: 5/10/2017

Collected: 5/9/2017 12:52

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	0.99	5/11/2017	5/18/2017

Client Sample ID: CBD1-NCL-1-1

Lab ID: 1705178-05A

Received: 5/10/2017

Collected: 5/9/2017 14:33

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	1.0	5/11/2017	5/18/2017

Client Sample ID: GC1-NCL-1-1

Lab ID: 1705178-06A

Received: 5/10/2017

Collected: 5/9/2017 10:30

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/11/2017	5/18/2017

Client Sample ID: GC2-NCL-1-1

Lab ID: 1705178-07A

Received: 5/10/2017

Collected: 5/9/2017 11:15

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/11/2017	5/18/2017

North Coast Laboratories, Ltd.

Date: 5/22/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705178  
**Project:** 20154800.003A Task 01 RPP-W1D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34693	34693	THIOW	µg/L	5/18/2017 20:38:06	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300152						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/22/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705178  
**Project:** 20154800.003A Task 01 RPP-W1D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34693	34693	THIOW	µg/L	5/18/2017 21:36:45	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300155						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8100	0.50	1.00	0	81.0%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34693	34693	THIOW	µg/L	5/18/2017 22:55:04	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300159						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8740	0.50	1.00	0	87.4%	70	120	0.810	7.60%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 921829

1705178

Project No. 20154800.003A Task 01		Project Name RPP- W1D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) <sup>1251</sup> <sup>1556</sup> M.lee / G. Short					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	05/09/17	0855	SR1-NCL-1-1	W	1	500 mL	X										
2	05/09/17	1017	SSB-NCL-1-1	W	1	500 mL	X										
3	05/09/17	1137	BS1-NCL-1-1	W	1	500 mL	X										
4	05/09/17	1252	CBD5-NCL-1-1	W	1	500 mL	X										
5	05/09/17	1433	CBD1-NCL-1-1	W	1	500 mL	X										
6	05/09/17	1630	GC1-NCL-1-1	W	1	<del>500 mL</del>	X										DPR sample, see page 2 CoC
7	05/09/17	1115	GC2-NCL-1-1	W	1	<del>500 mL</del>	X										DPR sample, see page 2 CoC
8																	
9																	DPR CoC # <i>N/A</i>
10																	
11																	<i>#1 L Ambers</i>
12																	
13																	
14																	
15																	
Relinquished By: <i>[Signature]</i>		Date/Time	Received By:		Instructions/Remarks										Send Results To:		
		5/9/17 11645	FED EX		Please send invoice to VALENT LABS										rfiroved@calrice.org		
Relinquished By:		Date/Time	Received By:												jenny.krenz@CH2M.com		
			<i>Reed 5/10/17</i>												criddle@kleinfelder.com		
Relinquished By:		Date/Time	Received By:												sgardner@kleinfelder.com		
			<i>322</i>														

2 Coolers



**NORTH COAST  
LABORATORIES LTD.**

May 22, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1705180  
Invoice No.: 133683  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W1D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CBD5-NCL-1-1-RB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

Date: 22-May-2017

WorkOrder: 1705180

# ANALYTICAL REPORT

Client Sample ID: CBD5-NCL-1-1-RB

Received: 5/10/2017

Lab ID: 1705180-01A

Collected: 5/9/2017 13:05

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	1.0	5/11/2017	5/18/2017

North Coast Laboratories, Ltd.

Date: 5/22/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705180  
**Project:** 20154800.003A Task 01 RPP-W1D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34693	34693	THIOW	µg/L	5/18/2017 8:38:06 PM	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300152						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/22/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705180  
**Project:** 20154800.003A Task 01 RPP-W1D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34693	34693	THIOW	µg/L	5/18/2017 9:36:45 PM	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300155						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8100	0.50	1.00	0	81.0%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34693	34693	THIOW	µg/L	5/18/2017 10:55:04 PM	5/11/2017						
Client ID:		Run ID:	ORLCMSMS2_170518A	SeqNo:	1300159						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8740	0.50	1.00	0	87.4%	70	120	0.810	7.60%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 810797

1705180

Project No. 20154800.003A Task 01		Project Name RPP- W1D1			Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649				
L.P. No. (PO No.)		Samplers: (Signature/Number) M. Lee 1556 L. Shock 12071			No. of Containers	Type of Containers	Thiobencarb											Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix																
1	05/09/17	1305	CBD5-NCL-1-1-RB	W	1	500 mL	X												
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
Relinquished By:		Date/Time 5/9/18 1645	Received By: FEDEX			Instructions/Remarks Please send invoice to KLEINFELDER										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			
Relinquished By:		Date/Time	Received By: Ruel 5-10-17 1145																
Relinquished By:		Date/Time	Received By: 322																

2 coolers



**NORTH COAST  
LABORATORIES LTD.**

May 30, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: RPP-W2D1 20154800.003A Task 01

Order No.: 1705333

Invoice No.: 133805

PO No.:

ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-2-1
02A	SSB-NCL-2-1
03A	BS1-NCL-2-1
04A	CBD5-NCL-2-1
05A	CBD1-NCL-2-1
06A	GC1-NCL-2-1
07A	GC2-NCL-2-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

Date: 30-May-2017

WorkOrder: 1705333

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-2-1

Lab ID: 1705333-01A

Received: 5/18/2017

Collected: 5/16/2017 09:10

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.53	µg/L	1.1	5/22/2017	5/25/2017

Client Sample ID: SSB-NCL-2-1

Lab ID: 1705333-02A

Received: 5/18/2017

Collected: 5/16/2017 10:35

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/22/2017	5/25/2017

Client Sample ID: BS1-NCL-2-1

Lab ID: 1705333-03A

Received: 5/18/2017

Collected: 5/16/2017 13:00

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/22/2017	5/25/2017

Client Sample ID: CBD5-NCL-2-1

Lab ID: 1705333-04A

Received: 5/18/2017

Collected: 5/16/2017 15:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>1.1</i>		0.50	µg/L	1.0	5/22/2017	5/25/2017

Client Sample ID: CBD1-NCL-2-1

Lab ID: 1705333-05A

Received: 5/18/2017

Collected: 5/16/2017 17:14

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.50	µg/L	1.0	5/22/2017	5/25/2017

Client Sample ID: GC1-NCL-2-1

Lab ID: 1705333-06A

Received: 5/18/2017

Collected: 5/16/2017 10:35

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.67</i>		0.51	µg/L	1.0	5/22/2017	5/25/2017

Client Sample ID: GC2-NCL-2-1

Lab ID: 1705333-07A

Received: 5/18/2017

Collected: 5/16/2017 11:06

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>2.5</i>		0.52	µg/L	1.0	5/22/2017	5/26/2017

North Coast Laboratories, Ltd.

Date: 5/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705333  
**Project:** RPP-W2D1 20154800.003A Task 01

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34726	34726	THIOW	µg/L	5/25/2017 21:10:34	5/22/2017						
		ORLCMSMS2_170525A		1301408							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705333  
**Project:** RPP-W2D1 20154800.003A Task 01

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34726	34726	THIOW	µg/L	5/25/2017 22:06:59	5/22/2017						
Client ID:	Run ID:	ORLCMSMS2_170525A		SeqNo:	1301411						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7827	0.50	1.00	0	78.3%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34726	34726	THIOW	µg/L	5/25/2017 23:22:09	5/22/2017						
Client ID:	Run ID:	ORLCMSMS2_170525A		SeqNo:	1301415						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7233	0.50	1.00	0	72.3%	70	120	0.783	7.89%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W2D1			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) <i>Mark Lee / 1536</i>						Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix															
1	05/16/17	0910	SR1-NCL-2-1	W	1	500 mL	X											
2	05/16/17	1035	SSB-NCL-2-1	W	1	500 mL	X											
3	05/16/17	1300	BS1-NCL-2-1	W	1	500 mL	X											
4	05/16/17	1520	CBD5-NCL-2-1	W	1	500 mL	X											
5	05/16/17	1714	CBD1-NCL-2-1	W	1	500 mL	X											
6	05/16/17	1035	GC1-NCL-2-1	W	1	500 mL	X											DPR sample, see page 2 CoC
7	05/16/17	1106	GC2-NCL-2-1	W	1	500 mL	X											DPR sample, see page 2 CoC
8																		
9																		DPR CoC #
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished By: <i>Mark Lee</i>	Date/Time: 5/16/17 1900	Received By: <i>Sarah Arnold</i>	Instructions/Remarks <b>Please send invoice to VALENT LABS</b> <i>3.8c</i>	Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com
Relinquished By: <i>Mark Lee</i>	Date/Time: 5/17/17 1000	Received By:		
Relinquished By:	Date/Time: 5/18/17 1233	Received By: <i>Roe</i>		



**NORTH COAST  
LABORATORIES LTD.**

May 30, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1705331  
Invoice No.: 133804  
PO No.:  
ELAP No.1247-Expires July 2017

RE: RPP-W2D1 20154800.003A Task 01

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CBD5-NCL-2-1-D

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

**Date:** 30-May-2017

**WorkOrder:** 1705331

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 30-May-2017

WorkOrder: 1705331

**ANALYTICAL REPORT**

Client Sample ID: CBD5-NCL-2-1-D

Received: 5/18/2017

Lab ID: 1705331-01A

Matrix: Aqueous

Collected 5/16/2017 15:20

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	1.2			0.52	0.16	µg/L	1.0	5/22/2017	05/25/17 21:29

North Coast Laboratories, Ltd.

Date: 5/30/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705331  
**Project:** RPP-W2D1 20154800.003A Task 01

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34726	34726	THIOW	µg/L	5/25/2017 21:10:34	5/22/2017						
		ORLCMSMS2_170525A		1301408							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/30/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705331  
**Project:** RPP-W2D1 20154800.003A Task 01

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34726	34726	THIOW	µg/L	5/25/2017 22:06:59	5/22/2017						
Client ID:		Run ID:	ORLCMSMS2_170525A	SeqNo:	1301411						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7827	0.50	1.00	0	78.3%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34726	34726	THIOW	µg/L	5/25/2017 23:22:09	5/22/2017						
Client ID:		Run ID:	ORLCMSMS2_170525A	SeqNo:	1301415						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7233	0.50	1.00	0	72.3%	70	120	0.783	7.89%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



1705331

Project No. 20154800.003A Task 01		Project Name RPP- W2D1			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) <i>Mondlee / 1556</i>					Thiobencarb											Instructions/Remarks  Standard turn around time
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix															
1	05/16/17	1520	CBD5-NCL-2-1-D	W	1	500 mL	X											
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
Relinquished By: <i>Machyung</i>		Date/Time 5/16/17   1900	Received By: <i>Sample Control #2</i>		Instructions/Remarks Please send invoice to KLEINFELDER										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			
Relinquished By: <i>Machyung</i>		Date/Time 5/17/17   1000	Received By:															
Relinquished By:		Date/Time 5/18/17   1233	Received By: <i>Ala 382</i>															



**NORTH COAST  
LABORATORIES LTD.**

June 06, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: RPP-W3D1 20154800.003A Task 01

Order No.: 1705415

Invoice No.: 133898

PO No.:

ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-3-1
02A	SSB-NCL-3-1
03A	BS1-NCL-3-1
04A	CBD5-NCL-3-1
05A	CBD1-NCL-3-1
06A	GC1-NCL-3-1
07A	GC2-NCL-3-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 06-Jun-2017

WorkOrder: 1705415

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-3-1

Lab ID: 1705415-01A

Received: 5/24/2017

Collected: 5/23/2017 8:35

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/25/2017	6/3/2017

Client Sample ID: SSB-NCL-3-1

Lab ID: 1705415-02A

Received: 5/24/2017

Collected: 5/23/2017 10:45

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/25/2017	6/3/2017

Client Sample ID: BS1-NCL-3-1

Lab ID: 1705415-03A

Received: 5/24/2017

Collected: 5/23/2017 12:00

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.8</b>		0.50	µg/L	1.0	5/25/2017	6/3/2017

Client Sample ID: CBD5-NCL-3-1

Lab ID: 1705415-04A

Received: 5/24/2017

Collected: 5/23/2017 13:00

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.8</b>		0.51	µg/L	1.0	5/25/2017	6/3/2017

Client Sample ID: CBD1-NCL-3-1

Lab ID: 1705415-05A

Received: 5/24/2017

Collected: 5/23/2017 14:30

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	5/25/2017	6/3/2017

Client Sample ID: GC1-NCL-3-1

Lab ID: 1705415-06A

Received: 5/24/2017

Collected: 5/23/2017 10:24

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.2</b>		0.50	µg/L	0.99	5/25/2017	6/3/2017

Client Sample ID: GC2-NCL-3-1

Lab ID: 1705415-07A

Received: 5/24/2017

Collected: 5/23/2017 10:33

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>2.7</b>		0.50	µg/L	0.99	5/25/2017	6/3/2017

North Coast Laboratories, Ltd.

Date: 6/6/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705415  
**Project:** RPP-W3D1 20154800.003A Task 01

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34743	34743	THIOW	µg/L	6/3/2017 8:26:57 PM	5/25/2017						
		ORLCMSMS2_170603A		1302172							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/6/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1705415  
**Project:** RPP-W3D1 20154800.003A Task 01

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34743	34743	THIOW	µg/L	6/3/2017 9:23:24 PM	5/25/2017						
Client ID:		Run ID:	ORLCMSMS2_170603A	SeqNo:	1302175						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8918	0.50	1.00	0	89.2%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34743	34743	THIOW	µg/L	6/3/2017 10:38:32 PM	5/25/2017						
Client ID:		Run ID:	ORLCMSMS2_170603A	SeqNo:	1302179						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7797	0.50	1.00	0	78.0%	70	120	0.892	13.4%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





**NORTH COAST  
LABORATORIES LTD.**

June 06, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1705414  
Invoice No.: 133897  
PO No.:  
ELAP No.1247-Expires July 2017

RE: RPP-W3D1 20154800.003A Task 01

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CRC1-NCL-3-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 06-Jun-2017  
**WorkOrder:** 1705414

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 06-Jun-2017

WorkOrder: 1705414

# ANALYTICAL REPORT

Client Sample ID: CRC1-NCL-3-1

Received: 5/24/2017

Lab ID: 1705414-01A

Matrix: Aqueous

Collected 5/23/2017 7:13

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	1.2			0.62	0.18	µg/L	1.2	5/25/2017	06/03/17 20:45

North Coast Laboratories, Ltd.

Date: 6/6/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705414  
**Project:** RPP-W3D1 20154800.003A Task 01

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34743	34743	THIOW	µg/L	6/3/2017 8:26:57 PM	5/25/2017						
Client ID:		Run ID:	ORLCMSMS2_170603A	SeqNo:	1302172						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/6/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1705414  
**Project:** RPP-W3D1 20154800.003A Task 01

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34743	34743	THIOW	µg/L	6/3/2017 9:23:24 PM	5/25/2017						
Client ID:		Run ID:	ORLCMSMS2_170603A	SeqNo:	1302175						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8918	0.50	1.00	0	89.2%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34743	34743	THIOW	µg/L	6/3/2017 10:38:32 PM	5/25/2017						
Client ID:		Run ID:	ORLCMSMS2_170603A	SeqNo:	1302179						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7797	0.50	1.00	0	78.0%	70	120	0.892	13.4%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 839231

1705414

Project No. 20154800.003A Task 01		Project Name RPP- W3D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649																																																																																																																																																																																																																																																																																
L.P. No. (PO No.)		Samplers: (Signature/Number) M. Lee LE Short				<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Thiobencarb</div> <table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>										X																																																																																																																																																																																																																																																																																
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Relinquished By: <i>[Signature]</i>		Date/Time 5/23/17 1630		Received By: FEDEX		Instructions/Remarks Please send invoice to KLEINFELDER										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com cridle@kleinfelder.com sgardner@kleinfelder.com																																																																																																																																																																																																																																																																																
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**NORTH COAST  
LABORATORIES LTD.**

June 09, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W4D1

Order No.: 1706023  
Invoice No.: 133967  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-4-1
02A	SSB-NCL-4-1
03A	BS1-NCL-4-1
04A	CBD5-NCL-4-1
05A	CBD1-NCL-4-1
06A	GC1-NCL-4-1
07A	GC2-NCL-4-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 09-Jun-2017

WorkOrder: 1706023

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-4-1

Lab ID: 1706023-01A

Received: 6/2/2017

Collected: 5/30/2017 8:50

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: SSB-NCL-4-1

Lab ID: 1706023-02A

Received: 6/2/2017

Collected: 5/30/2017 10:10

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: BS1-NCL-4-1

Lab ID: 1706023-03A

Received: 6/2/2017

Collected: 5/30/2017 11:59

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: CBD5-NCL-4-1

Lab ID: 1706023-04A

Received: 6/2/2017

Collected: 5/30/2017 13:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.8</b>		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: CBD1-NCL-4-1

Lab ID: 1706023-05A

Received: 6/2/2017

Collected: 5/30/2017 15:45

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.4</b>		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: GC1-NCL-4-1

Lab ID: 1706023-06A

Received: 6/2/2017

Collected: 5/30/2017 10:38

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.7</b>		0.50	µg/L	0.99	6/5/2017	6/7/2017

Client Sample ID: GC2-NCL-4-1

Lab ID: 1706023-07A

Received: 6/2/2017

Collected: 5/30/2017 10:51

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>2.8</b>		0.49	µg/L	0.99	6/5/2017	6/7/2017

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706023  
**Project:** 20154800.003A Task 01 RPP-W4D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34774	34774	THIOW	µg/L	6/7/2017 7:01:44 PM	6/5/2017						
		ORLCMSMS2_170607A		1302808							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706023  
**Project:** 20154800.003A Task 01 RPP-W4D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34774	34774	THIOW	µg/L	6/7/2017 8:34:33 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302813						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7550	0.50	1.00	0	75.5%	70	120	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W4D1			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649					
L.P. No. (PO No.)	Samplers: (Signature/Number) M. Lee / C. Short			Date MM/DD/YY			Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	Thiobencarb												
1	05/30/17	0850	SR1-NCL-4-1		W	1																
2	05/30/17	1010	SSB-NCL-4-1	W	1	500 mL	X															
3	05/30/17	1159	BS1-NCL-4-1	W	1	500 mL	X															
4	05/30/17	1320	CBD5-NCL-4-1	W	1	500 mL	X															
5	05/30/17	1545	CBD1-NCL-4-1	W	1	500 mL	X															
6	05/30/17	1638	GC1-NCL-4-1	W	1	500 mL	X															DPR sample, see page 2 CoC
7	05/30/17	1651	GC2-NCL-4-1	W	1	500 mL	X															DPR sample, see page 2 CoC
8																						
9																						DPR CoC #
10																						
11																						
12																						
13																						
14																						
15																						
Relinquished By: <i>[Signature]</i>		Date/Time: 5/31/17 11820	Received By: <i>[Signature]</i>		Instructions/Remarks: Please send invoice to VALENT LABS										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com							
Relinquished By: <i>[Signature]</i>		Date/Time: 6/1/17 16730	Received By: <i>[Signature]</i>																			
Relinquished By: <i>[Signature]</i>		Date/Time: 6/1/17 1800	Received By: <i>[Signature]</i>																			

6/2/17 1330 *[Signature]*



**NORTH COAST  
LABORATORIES LTD.**

June 09, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1706025  
Invoice No.: 133966  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W4D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	BS1-NCL-4-1-D

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 09-Jun-2017

WorkOrder: 1706025

# ANALYTICAL REPORT

Client Sample ID: BS1-NCL-4-1-D

Received: 6/2/2017

Lab ID: 1706025-01A

Collected: 5/30/2017 11:51

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706025  
**Project:** 20154800.003A Task 01 RPP-W4D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34774	34774	THIOW	µg/L	6/7/2017 7:01:44 PM	6/5/2017						
		ORLCMSMS2_170607A		1302808							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706025  
**Project:** 20154800.003A Task 01 RPP-W4D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34774	34774	THIOW	µg/L	6/7/2017 8:34:33 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302813						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7550	0.50	1.00	0	75.5%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34774	34774	THIOW	µg/L	6/7/2017 10:44:31 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302820						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7340	0.50	1.00	0	73.4%	70	120	0.755	2.82%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 287759

1706025

Project No. 20154800.003A Task 01		Project Name RPP- W4D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) M. Lee / L. Short					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	05/30/17	1151	BS1-NCL-4-1-D	W	1	500 mL	X										
2																	
3																	
4																	
5																	
6																	
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8																	
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12																	
13																	
14																	
15																	
Relinquished By: <i>[Signature]</i>		Date/Time: 9/30/17 11820	Received By: KLF Sample Control		Instructions/Remarks: Please send invoice to KLEINFELDER										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com cridle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By: KLF SC		Date/Time: 6/1/17 11730	Received By: <i>[Signature]</i>														
Relinquished By: <i>[Signature]</i>		Date/Time: 6/1/17 11800	Received By: FEDEX														

6/2/17 1330 *[Signature]*



**NORTH COAST  
LABORATORIES LTD.**

June 09, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W4D2

Order No.: 1706027  
Invoice No.: 133965  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-4-2
02A	SSB-NCL-4-2
03A	BS1-NCL-4-2
04A	CBD5-NCL-4-2
05A	CBD1-NCL-4-2
06A	GC1-NCL-4-2
07A	GC2-NCL-4-2

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 09-Jun-2017

WorkOrder: 1706027

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-4-2

Lab ID: 1706027-01A

Received: 6/2/2017

Collected: 6/1/2017 8:55

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.52	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: SSB-NCL-4-2

Lab ID: 1706027-02A

Received: 6/2/2017

Collected: 6/1/2017 10:27

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: BS1-NCL-4-2

Lab ID: 1706027-03A

Received: 6/2/2017

Collected: 6/1/2017 12:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: CBD5-NCL-4-2

Lab ID: 1706027-04A

Received: 6/2/2017

Collected: 6/1/2017 13:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.5</b>		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: CBD1-NCL-4-2

Lab ID: 1706027-05A

Received: 6/2/2017

Collected: 6/1/2017 15:00

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.8</b>		0.54	µg/L	1.1	6/5/2017	6/7/2017

Client Sample ID: GC1-NCL-4-2

Lab ID: 1706027-06A

Received: 6/2/2017

Collected: 6/1/2017 10:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.2</b>		0.51	µg/L	1.0	6/5/2017	6/7/2017

Client Sample ID: GC2-NCL-4-2

Lab ID: 1706027-07A

Received: 6/2/2017

Collected: 6/1/2017 10:40

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.4</b>		0.51	µg/L	1.0	6/5/2017	6/8/2017

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706027  
**Project:** 20154800.003A Task 01 RPP-W4D2

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34774	34774	THIOW	µg/L	6/7/2017 7:01:44 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302808						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/9/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706027  
**Project:** 20154800.003A Task 01 RPP-W4D2

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34774	34774	THIOW	µg/L	6/7/2017 8:34:33 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302813						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7550	0.50	1.00	0	75.5%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34774	34774	THIOW	µg/L	6/7/2017 10:44:31 PM	6/5/2017						
Client ID:		Run ID:	ORLCMSMS2_170607A	SeqNo:	1302820						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7340	0.50	1.00	0	73.4%	70	120	0.755	2.82%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W4D2			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) <i>L Shors M. Galonei</i>					Thiobencarb										Instructions/Remarks Standard turn around time	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix															
1	06/01/17	0855	SR1-NCL-4-2	W	1	500 mL	X											
2	06/01/17	1027	SSB-NCL-4-2	W	1	500 mL	X											
3	06/01/17	1220	BS1-NCL-4-2	W	1	500 mL	X											
4	06/01/17	1320	CBD5-NCL-4-2	W	1	500 mL	X											
5	06/01/17	1500	CBD1-NCL-4-2	W	1	500 mL	X											
6	06/01/17	1020	GC1-NCL-4-2	W	1	500 mL	X										DPR sample, see page 2 CoC	
7	06/01/17	1040	GC2-NCL-4-2	W	1	500 mL	X										DPR sample, see page 2 CoC	
8																		
9																	DPR CoC #	
10																		
11																		
12																		
13																		
14																		
15																		
Relinquished By: <i>[Signature]</i>		Date/Time 6/1/17 1800		Received By: FEDEX		Instructions/Remarks Please send invoice to VALENT LABS										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By:		Date/Time 6/3/17 1330		Received By: <i>[Signature]</i>														
Relinquished By:		Date/Time		Received By:														



**NORTH COAST  
LABORATORIES LTD.**

June 19, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W5D1

Order No.: 1706145  
Invoice No.: 134102  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-5-1
02A	SSB-NCL-5-1
03A	BS1-NCL-5-1
04A	CBD5-NCL-5-1
05A	CBD1-NCL-5-1
06A	GC1-NCL-5-1
07A	GC2-NCL-5-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 19-Jun-2017

WorkOrder: 1706145

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-5-1

Lab ID: 1706145-01A

Received: 6/9/2017

Collected: 6/6/2017 8:55

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.53	µg/L	1.1	6/13/2017	6/15/2017

Client Sample ID: SSB-NCL-5-1

Lab ID: 1706145-02A

Received: 6/9/2017

Collected: 6/6/2017 10:05

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.53	µg/L	1.1	6/13/2017	6/15/2017

Client Sample ID: BS1-NCL-5-1

Lab ID: 1706145-03A

Received: 6/9/2017

Collected: 6/6/2017 11:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/15/2017

Client Sample ID: CBD5-NCL-5-1

Lab ID: 1706145-04A

Received: 6/9/2017

Collected: 6/6/2017 12:25

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.5</b>		0.51	µg/L	1.0	6/13/2017	6/15/2017

Client Sample ID: CBD1-NCL-5-1

Lab ID: 1706145-05A

Received: 6/9/2017

Collected: 6/6/2017 14:05

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.1</b>		0.51	µg/L	1.0	6/13/2017	6/15/2017

Client Sample ID: GC1-NCL-5-1

Lab ID: 1706145-06A

Received: 6/9/2017

Collected: 6/6/2017 10:25

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>0.66</b>		0.50	µg/L	1.0	6/13/2017	6/15/2017

Client Sample ID: GC2-NCL-5-1

Lab ID: 1706145-07A

Received: 6/9/2017

Collected: 6/6/2017 10:50

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>0.69</b>		0.51	µg/L	1.0	6/13/2017	6/15/2017

North Coast Laboratories, Ltd.

Date: 6/19/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706145  
**Project:** 20154800.003A Task 01 RPP-W5D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34802	34802	THIOW	µg/L	6/15/2017 9:21:28 PM	6/13/2017						
		ORLCMSMS2_170615A		1303818							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/19/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706145  
**Project:** 20154800.003A Task 01 RPP-W5D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34802	34802	THIOW	µg/L	6/15/2017 10:54:20 PM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303823						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7900	0.50	1.00	0	79.0%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34802	34802	THIOW	µg/L	6/16/2017 1:04:11 AM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303830						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7980	0.50	1.00	0	79.8%	70	120	0.790	1.01%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



STATE OF CALIFORNIA

DEPARTMENT OF FOOD & AGRICULTURE  
ENVIRON. MONITOR. & PEST MGMT.  
SACRAMENTO SOILS LABORATORY  
3971 COMMERCE DRIVE, SUITE D  
WEST SACRAMENTO, CA 95691  
(916) 322-3082

SAMPLE CHECK-OUT SHEET  
30-008 (4/90)

Today's Date: 6/8/2017

Project ID (Study no.): Rice Sample

Logged out by: \_\_\_\_\_  
(key data entry person)

Date Delivered: 6/8/2017

Storage location: \_\_\_\_\_  
(see # on outside of storage)

Checked-out by: KL, AB

Laboratory Delivering to: CRC - Kleinfelder

Remarks: \_\_\_\_\_

EHAP Sample No.	Sample Code	Date Collected	Sample Type	Container Type	Analysis Type	Analysis	Comment
TB	GC1	<del>6/8/17</del>	P				
BEN	GC1	6/8/17	P				
BU	GC1	6/8/17	BU				
TB	GC2	6/8/17	P				
BEN	GC2	✓	P				
BU	GC2	✓	BU				

Picked up by K/E @ 1305



**NORTH COAST  
LABORATORIES LTD.**

June 20, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1706148  
Invoice No.: 134100  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W5D2

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-5-1-D

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 20-Jun-2017

WorkOrder: 1706148

## ANALYTICAL REPORT

Client Sample ID: SR1-NCL-5-1-D

Received: 6/9/2017

Lab ID: 1706148-01A

Collected: 6/6/2017 8:55

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

North Coast Laboratories, Ltd.

Date: 6/20/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706148  
**Project:** 20154800.003A Task 01 RPP-W5D2

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34802	34802	THIOW	µg/L	6/15/2017 9:21:28 PM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303818						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/20/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706148  
**Project:** 20154800.003A Task 01 RPP-W5D2

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34802	34802	THIOW	µg/L	6/15/2017 10:54:20 PM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303823						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7900	0.50	1.00	0	79.0%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34802	34802	THIOW	µg/L	6/16/2017 1:04:11 AM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303830						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7980	0.50	1.00	0	79.8%	70	120	0.790	1.01%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 550717

Project No. 20154800.003A Task 01		Project Name RPP- W5D1			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649																																										
L.P. No. (PO No.)		Samplers: (Signature/Number) <i>LESwork/M. Lee</i>					<table border="1"> <tr><td>Thiobencarb</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>										Thiobencarb																																										
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1200



**NORTH COAST  
LABORATORIES LTD.**

June 19, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W5D2

Order No.: 1706147  
Invoice No.: 134101  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-5-2
02A	SSB-NCL-5-2
03A	BS1-NCL-5-2
04A	CBD5-NCL-5-2
05A	CBD1-NCL-5-2
06A	GC1-NCL-5-2
07A	GC2-NCL-5-2

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

Date: 19-Jun-2017

WorkOrder: 1706147

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-5-2

Lab ID: 1706147-01A

Received: 6/9/2017

Collected: 6/8/2017 8:55

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: SSB-NCL-5-2

Lab ID: 1706147-02A

Received: 6/9/2017

Collected: 6/8/2017 10:10

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: BS1-NCL-5-2

Lab ID: 1706147-03A

Received: 6/9/2017

Collected: 6/8/2017 11:30

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: CBD5-NCL-5-2

Lab ID: 1706147-04A

Received: 6/9/2017

Collected: 6/8/2017 12:35

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: CBD1-NCL-5-2

Lab ID: 1706147-05A

Received: 6/9/2017

Collected: 6/8/2017 14:05

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.94</i>		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: GC1-NCL-5-2

Lab ID: 1706147-06A

Received: 6/9/2017

Collected: 6/8/2017 11:20

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/13/2017	6/16/2017

Client Sample ID: GC2-NCL-5-2

Lab ID: 1706147-07A

Received: 6/9/2017

Collected: 6/8/2017 11:30

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.51</i>		0.51	µg/L	1.0	6/13/2017	6/16/2017

North Coast Laboratories, Ltd.

Date: 6/19/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706147  
**Project:** 20154800.003A Task 01 RPP-W5D2

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34802	34802	THIOW	µg/L	6/15/2017 9:21:28 PM	6/13/2017						
		ORLCMSMS2_170615A		1303818							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/19/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706147  
**Project:** 20154800.003A Task 01 RPP-W5D2

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34802	34802	THIOW	µg/L	6/15/2017 10:54:20 PM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303823						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7900	0.50	1.00	0	79.0%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34802	34802	THIOW	µg/L	6/16/2017 1:04:11 AM	6/13/2017						
Client ID:		Run ID:	ORLCMSMS2_170615A	SeqNo:	1303830						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7980	0.50	1.00	0	79.8%	70	120	0.790	1.01%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





**NORTH COAST  
LABORATORIES LTD.**

June 28, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W6D1

Order No.: 1706280  
Invoice No.: 134256  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-6-1
02A	SSB-NCL-6-1
03A	BS1-NCL-6-1
04A	CBD5-NCL-6-1
05A	CBD1-NCL-6-1
06A	GC1-NCL-6-1
07A	GC2-NCL-6-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 28-Jun-2017

**WorkOrder:** 1706280

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 28-Jun-2017

WorkOrder: 1706280

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-01A

Matrix: Aqueous

Collected 6/13/2017 17:15

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/19/2017	06/25/17 22:28

Client Sample ID: SSB-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-02A

Matrix: Aqueous

Collected 6/13/2017 9:25

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.16</i>	J		0.50	0.15	µg/L	1.0	6/19/2017	06/25/17 22:47

Client Sample ID: BS1-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-03A

Matrix: Aqueous

Collected 6/13/2017 11:45

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.38</i>	J		0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 23:24

Client Sample ID: CBD5-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-04A

Matrix: Aqueous

Collected 6/13/2017 13:45

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.39</i>	J		0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 23:43

Client Sample ID: CBD1-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-05A

Matrix: Aqueous

Collected 6/13/2017 15:40

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.50</i>	J		0.55	0.17	µg/L	1.1	6/19/2017	06/26/17 0:02

Client Sample ID: GC1-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-06A

Matrix: Aqueous

Collected 6/13/2017 11:00

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.34</i>	J		0.50	0.15	µg/L	1.0	6/19/2017	06/26/17 0:21

Date: 28-Jun-2017

WorkOrder: 1706280

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-6-1

Received: 6/16/2017

Lab ID: 1706280-07A

Matrix: Aqueous

Collected 6/13/2017 11:20

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>0.28</b>	J		0.50	0.15	µg/L	0.99	6/19/2017	06/26/17 0:39

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706280  
**Project:** 20154800.003A Task 01 RPP-W6D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34820	34820	THIOW	µg/L	6/25/2017 7:20:18 PM	6/19/2017						
		ORLCMSMS2_170625A		1304941							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706280  
**Project:** 20154800.003A Task 01 RPP-W6D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34820	34820	THIOW	µg/L	6/25/2017 8:54:19 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304946						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.029	0.50	1.00	0	103%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34820	34820	THIOW	µg/L	6/25/2017 11:06:03 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304953						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.010	0.50	1.00	0	101%	70	120	1.03	1.86%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name <b>RPP- W6D1</b>			No. of Containers	Type of Containers	Analysis										Receiving Lab: <b>North Coast Laboratories</b> 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) M Lee / LE Short					<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">Thiobencarb</div> </div>										Instructions/Remarks	
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix															
1	06/13/17	1715	SR1-NCL-6-1	W	1	500 mL	X											
2	06/13/17	0925	SSB-NCL-6-1	W	1	500 mL	X											
3	06/13/17	1145	BS1-NCL-6-1	W	1	500 mL	X											
4	06/13/17	1345	CBD5-NCL-6-1	W	1	500 mL	X											
5	06/13/17	1540	CBD1-NCL-6-1	W	1	500 mL	X											
6	06/13/17	1100	GC1-NCL-6-1	W	1	500 mL	X										DPR sample, see page 2 CoC	
7	06/13/17	1120	GC2-NCL-6-1	W	1	500 mL	X										DPR sample, see page 2 CoC	
8																		
9																	DPR CoC #	
10																		
11																		
12																		
13																		
14																		
15																		
Relinquished By:		Date/Time 6/13/17 1900		Received By: KLF Sample Control		Instructions/Remarks <b>Please send invoice to VALENT LABS</b>										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By: KLF Sample Control		Date/Time 6/15/17 1839		Received By:														
Relinquished By:		Date/Time 6/15/17 1730		Received By: FEDEX														

6/16/17 1100 See B.C.R.



**NORTH COAST  
LABORATORIES LTD.**

June 28, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1706279  
Invoice No.: 134257  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W6D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CBD1-NCL-6-1-D

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 28-Jun-2017

**WorkOrder:** 1706279

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 28-Jun-2017

WorkOrder: 1706279

# ANALYTICAL REPORT

Client Sample ID: CBD1-NCL-6-1-D

Received: 6/16/2017

Lab ID: 1706279-01A

Matrix: Aqueous

Collected 6/13/2017 15:40

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.45</i>		J	0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 19:39

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706279  
**Project:** 20154800.003A Task 01 RPP-W6D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34820	34820	THIOW	µg/L	6/25/2017 7:20:18 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304941						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706279  
**Project:** 20154800.003A Task 01 RPP-W6D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34820	34820	THIOW	µg/L	6/25/2017 8:54:19 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304946						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.029	0.50	1.00	0	103%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34820	34820	THIOW	µg/L	6/25/2017 11:06:03 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304953						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.010	0.50	1.00	0	101%	70	120	1.03	1.86%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 281988

1706279

Project No. 20154800.003A Task 01		Project Name RPP- W6D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) M Lee / LE Short					Thiobencarb	X										
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	06/13/17	1540	CBD1-NCL-6-1-D	W	1	500 mL	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
Relinquished By: <i>[Signature]</i>		Date/Time 6/13/17 1800		Received By: KLF Sample Control		Instructions/Remarks <b>Please send invoice to KLEINFELDER</b>										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
Relinquished By: KLF Sample Control		Date/Time 6/15/17 1839		Received By: <i>[Signature]</i>													
Relinquished By: <i>[Signature]</i>		Date/Time 6/15/17 1930		Received By: FEDEX													

6/16/17 1120 *[Signature]* 3.02



**NORTH COAST  
LABORATORIES LTD.**

June 28, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W6D2

Order No.: 1706277  
Invoice No.: 134258  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-6-2
02A	SSB-NCL-6-2
03A	BS1-NCL-6-2
04A	CBD5-NCL-6-2
05A	CBD1-NCL-6-2
06A	GC1-NCL-6-2
07A	GC2-NCL-6-2

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 28-Jun-2017

**WorkOrder:** 1706277

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 28-Jun-2017

WorkOrder: 1706277

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-01A

Matrix: Aqueous

Collected 6/15/2017 9:30

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 19:57

Client Sample ID: SSB-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-02A

Matrix: Aqueous

Collected 6/15/2017 10:47

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 20:16

Client Sample ID: BS1-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-03A

Matrix: Aqueous

Collected 6/15/2017 12:18

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.29</i>		J	0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 20:35

Client Sample ID: CBD5-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-04A

Matrix: Aqueous

Collected 6/15/2017 14:15

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.25</i>		J	0.52	0.16	µg/L	1.0	6/19/2017	06/25/17 21:13

Client Sample ID: CBD1-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-05A

Matrix: Aqueous

Collected 6/15/2017 16:07

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.64</i>			0.51	0.15	µg/L	1.0	6/19/2017	06/25/17 21:31

Client Sample ID: GC1-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-06A

Matrix: Aqueous

Collected 6/15/2017 10:40

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.27</i>		J	0.50	0.15	µg/L	1.0	6/19/2017	06/25/17 21:50

Date: 28-Jun-2017

WorkOrder: 1706277

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-6-2

Received: 6/16/2017

Lab ID: 1706277-07A

Matrix: Aqueous

Collected 6/15/2017 11:00

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>0.24</b>		J	0.50	0.15	µg/L	1.0	6/19/2017	06/25/17 22:09

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706277  
**Project:** 20154800.003A Task 01 RPP-W6D2

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34820	34820	THIOW	µg/L	6/25/2017 7:20:18 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304941						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/28/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706277  
**Project:** 20154800.003A Task 01 RPP-W6D2

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34820	34820	THIOW	µg/L	6/25/2017 8:54:19 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304946						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.029	0.50	1.00	0	103%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34820	34820	THIOW	µg/L	6/25/2017 11:06:03 PM	6/19/2017						
Client ID:		Run ID:	ORLCMSMS2_170625A	SeqNo:	1304953						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.010	0.50	1.00	0	101%	70	120	1.03	1.86%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W6D2			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)		Samplers: (Signature/Number) LE Short/ E. Santos					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix															
1	06/15/17	09-30	SR1-NCL-6-2	W	1	500 mL	X											
2	06/15/17	1047	SSB-NCL-6-2	W	1	500 mL	X											
3	06/15/17	1218	BS1-NCL-6-2	W	1	500 mL	X											
4	06/15/17	1415	CBD5-NCL-6-2	W	1	500 mL	X											
5	06/15/17	1607	CBD1-NCL-6-2	W	1	500 mL	X											
6	06/15/17	1540	GC1-NCL-6-2	W	1	500 mL	X											DPR sample, see page 2 CoC
7	06/15/17	1100	GC2-NCL-6-2	W	1	500 mL	X											DPR sample, see page 2 CoC
8																		
9																		DPR CoC #
10																		
11																		
12																		
13																		
14																		
15																		
Relinquished By:		Date/Time 6/15/17 1930		Received By: FEDEX		Instructions/Remarks Please send invoice to VALENT LABS										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By:		Date/Time 6/16/17 1120		Received By:  3.0E														
Relinquished By:		Date/Time		Received By:														



**NORTH COAST  
LABORATORIES LTD.**

June 30, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Order No.: 1706394  
Invoice No.: 134306  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

Attn:

RE: 20154800.003A Task 01 RPP-W7D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-7-1
02A	SSB-NCL-7-1
03A	BS1-NCL-7-1
04A	CBD5-NCL-7-1
05A	CBD1-NCL-7-1
06A	GC1-NCL-7-1
07A	GC2-NCL-7-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

**Date:** 30-Jun-2017

**WorkOrder:** 1706394

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 30-Jun-2017

WorkOrder: 1706394

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-01A

Matrix: Aqueous

Collected 6/20/2017 07:25

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 19:50

Client Sample ID: SSB-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-02A

Matrix: Aqueous

Collected 6/20/2017 08:30

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 20:10

Client Sample ID: BS1-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-03A

Matrix: Aqueous

Collected 6/20/2017 09:35

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 20:29

Client Sample ID: CBD5-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-04A

Matrix: Aqueous

Collected 6/20/2017 10:35

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.32</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 21:09

Client Sample ID: CBD1-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-05A

Matrix: Aqueous

Collected 6/20/2017 12:10

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>1.1</i>			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 21:29

Client Sample ID: GC1-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-06A

Matrix: Aqueous

Collected 6/20/2017 10:05

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.20</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 21:48

Date: 30-Jun-2017

WorkOrder: 1706394

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-7-1

Received: 6/23/2017

Lab ID: 1706394-07A

Matrix: Aqueous

Collected 6/20/2017 10:25

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.21</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 22:08

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706394  
**Project:** 20154800.003A Task 01 RPP-W7D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34859	34859	THIOW	µg/L	6/29/2017 19:10:40	6/27/2017						
		ORLCMSMS2_170629A		1305743							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706394  
**Project:** 20154800.003A Task 01 RPP-W7D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34859	34859	THIOW	µg/L	6/29/2017 20:49:32	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305748						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9315	0.50	1.00	0	93.2%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34859	34859	THIOW	µg/L	6/29/2017 23:08:01	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305755						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9346	0.50	1.00	0	93.5%	70	120	0.932	0.332%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 243754

1706394

Project No.		Project Name			No. of Containers	Type of Containers	Analysis										Receiving Lab:					
L.P. No. (PO No.)		Samplers: (Signature/Number)					Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	Thiobencarb											
20154800.003A Task 01		RPP- W7D1																				
		M. Lee/L. Short																				
1	06/20/17	0725	SR1-NCL-7-1	W	1	500 mL			X													
2	06/20/17	0830	SSB-NCL-7-1	W	1	500 mL			X													
3	06/20/17	0935	BS1-NCL-7-1	W	1	500 mL			X													
4	06/20/17	1035	CBD5-NCL-7-1	W	1	500 mL			X													
5	06/20/17	1210	CBD1-NCL-7-1	W	1	500 mL			X													
6	06/20/17	1005	GC1-NCL-7-1	W	1	500 mL			X													DPR sample, see page 2 CoC
7	06/20/17	1025	GC2-NCL-7-1	W	1	500 mL			X													DPR sample, see page 2 CoC
8																						
9																						DPR CoC #
10																						
11																						
12																						
13																						
14																						
15																						
Relinquished By: <i>Malden</i>		Date/Time: 6/20/17 1400		Received By: <i>R-L Sample Central #2</i>		Instructions/Remarks <b>Please send invoice to VALENT LABS</b>										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com						
Relinquished By: <i>KLFC An</i>		Date/Time: 6/24/17 1405		Received By: <i>[Signature]</i>																		
Relinquished By: <i>[Signature]</i>		Date/Time: 6/24/17 1507		Received By: <i>[Signature]</i>																		

6/23/17 1048 *[Signature]* 503



**NORTH COAST  
LABORATORIES LTD.**

June 30, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1706393  
Invoice No.: 134305  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W7D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CRC1-NCL-7-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

**Date:** 30-Jun-2017

**WorkOrder:** 1706393

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 30-Jun-2017

WorkOrder: 1706393

# ANALYTICAL REPORT

Client Sample ID: CRC1-NCL-7-1

Received: 6/23/2017

Lab ID: 1706393-01A

Collected: 6/20/2017 13:56

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<b>1.3</b>		0.50	µg/L	1.0	6/27/2017	6/29/2017

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706393  
**Project:** 20154800.003A Task 01 RPP-W7D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34859	34859	THIOW	µg/L	6/29/2017 19:10:40	6/27/2017						
		ORLCMSMS2_170629A		1305743							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706393  
**Project:** 20154800.003A Task 01 RPP-W7D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34859	34859	THIOW	µg/L	6/29/2017 20:49:32	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305748						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9315	0.50	1.00	0	93.2%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34859	34859	THIOW	µg/L	6/29/2017 23:08:01	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305755						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9346	0.50	1.00	0	93.5%	70	120	0.932	0.332%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





**NORTH COAST  
LABORATORIES LTD.**

June 30, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Order No.: 1706395  
Invoice No.: 134307  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

Attn:

RE: 20154800.003A Task 01 RPP-W7D2

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-7-2
02A	SSB-NCL-7-2
03A	BS1-NCL-7-2
04A	CBD5-NCL-7-2
05A	CBD1-NCL-7-2
06A	GC1-NCL-7-2
07A	GC2-NCL-7-2

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Trudie Blasi, Project Manager

Date: 30-Jun-2017

WorkOrder: 1706395

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-01A

Matrix: Aqueous

Collected 6/22/2017 07:15

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 22:28

Client Sample ID: SSB-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-02A

Matrix: Aqueous

Collected 6/22/2017 08:20

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 22:48

Client Sample ID: BS1-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-03A

Matrix: Aqueous

Collected 6/22/2017 09:23

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 23:27

Client Sample ID: CBD5-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-04A

Matrix: Aqueous

Collected 6/22/2017 10:25

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.26</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/29/17 23:47

Client Sample ID: CBD1-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-05A

Matrix: Aqueous

Collected 6/22/2017 12:25

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.98</i>			0.50	0.15	µg/L	1.0	6/27/2017	06/30/17 00:07

Client Sample ID: GC1-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-06A

Matrix: Aqueous

Collected 6/22/2017 10:25

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.27</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/30/17 00:27

Date: 30-Jun-2017

WorkOrder: 1706395

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-7-2

Received: 6/23/2017

Lab ID: 1706395-07A

Matrix: Aqueous

Collected 6/22/2017 10:40

Test Name: Thiobencarb

Analyst: WHB

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.22</i>		J	0.50	0.15	µg/L	1.0	6/27/2017	06/30/17 00:46

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706395  
**Project:** 20154800.003A Task 01 RPP-W7D2

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34859	34859	THIOW	µg/L	6/29/2017 19:10:40	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305743						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 6/30/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706395  
**Project:** 20154800.003A Task 01 RPP-W7D2

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34859	34859	THIOW	µg/L	6/29/2017 20:49:32	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305748						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9315	0.50	1.00	0	93.2%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34859	34859	THIOW	µg/L	6/29/2017 23:08:01	6/27/2017						
Client ID:		Run ID:	ORLCMSMS2_170629A	SeqNo:	1305755						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9346	0.50	1.00	0	93.5%	70	120	0.932	0.332%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W7D2		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) M. Lee / L. Short					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	06/22/17	0715	SR1-NCL-7-2	W	1	500 mL	X										
2	06/22/17	0830	SSB-NCL-7-2	W	1	500 mL	X										
3	06/22/17	0923	BS1-NCL-7-2	W	1	500 mL	X										
4	06/22/17	1025	CBD5-NCL-7-2	W	1	500 mL	X										
5	06/22/17	1225	CBD1-NCL-7-2	W	1	500 mL	X										
6	06/22/17	1025	GC1-NCL-7-2	W	1	500 mL	X										DPR sample, see page 2 CoC
7	06/22/17	1040	GC2-NCL-7-2	W	1	500 mL	X										DPR sample, see page 2 CoC
8																	
9																	DPR CoC #
10																	
11																	
12																	
13																	
14																	
15																	
Relinquished By: <i>[Signature]</i>		Date/Time: 6/22/17 1150	Received By: <i>[Signature]</i>		Instructions/Remarks <b>Please send invoice to VALENT LABS</b>										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com		
Relinquished By:		Date/Time: 6/23/17 1048	Received By: <i>[Signature]</i> 502														
Relinquished By:		Date/Time:	Received By:														



**NORTH COAST  
LABORATORIES LTD.**

July 13, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Order No.: 1706451  
Invoice No.: 134488  
PO No.:  
ELAP No.1247-Expires July 2017

Attn:

RE: 20154800.003A Task 01 RPP-W8D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-8-1
02A	SSB-NCL-8-1
03A	BS1-NCL-8-1
04A	CBD5-NCL-8-1
05A	CBD1-NCL-8-1
06A	GC1-NCL-8-1
07A	GC2-NCL-8-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 13-Jul-2017

**WorkOrder:** 1706451

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 13-Jul-2017

WorkOrder: 1706451

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-01A

Matrix: Aqueous

Collected 6/27/2017 8:15

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	6/30/2017	07/10/17 21:30

Client Sample ID: SSB-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-02A

Matrix: Aqueous

Collected 6/27/2017 9:25

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	6/30/2017	07/10/17 21:30

Client Sample ID: BS1-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-03A

Matrix: Aqueous

Collected 6/27/2017 11:15

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	6/30/2017	07/10/17 22:10

Client Sample ID: CBD5-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-04A

Matrix: Aqueous

Collected 6/27/2017 12:45

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.22</i>		J	0.51	0.15	µg/L	1.0	6/30/2017	07/10/17 22:30

Client Sample ID: CBD1-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-05A

Matrix: Aqueous

Collected 6/27/2017 14:50

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.46</i>		J	0.51	0.15	µg/L	1.0	6/30/2017	07/10/17 22:49

Client Sample ID: GC1-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-06A

Matrix: Aqueous

Collected 6/27/2017 10:19

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.19</i>		J	0.50	0.15	µg/L	1.0	6/30/2017	07/10/17 23:09

Date: 13-Jul-2017

WorkOrder: 1706451

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-8-1

Received: 6/28/2017

Lab ID: 1706451-07A

Matrix: Aqueous

Collected 6/27/2017 10:35

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.16</i>		J	0.50	0.15	µg/L	1.0	6/30/2017	07/10/17 23:29

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706451  
**Project:** 20154800.003A Task 01 RPP-W8D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34879	34879	THIOW	µg/L	7/10/2017 8:11:37 PM	6/30/2017						
		ORLCMSMS2_170710A		1306866							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1706451  
**Project:** 20154800.003A Task 01 RPP-W8D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34879	34879	THIOW	µg/L	7/10/2017 8:31:26 PM	6/30/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306867						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.133	0.50	1.00	0	113%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34879	34879	THIOW	µg/L	7/10/2017 8:51:16 PM	6/30/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306868						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9097	0.50	1.00	0	91.0%	70	120	1.13	21.9%	20	R

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W8D1			No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649		
L.P. No. (PO No.)	Samplers: (Signature/Number) Mark Lee/ Mehdi Galouei			Date MM/DD/YY			Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix	Thiobencarb									
1	06/27/17	0815	SR1-NCL-8-1		W	1													
2	06/27/17	0925	SSB-NCL-8-1	W	1	500 mL	X												
3	06/27/17	1115	BS1-NCL-8-1	W	1	500 mL	X												
4	06/27/17	1245	CBD5-NCL-8-1	W	1	500 mL	X												
5	06/27/17	1450	CBD1-NCL-8-1	W	1	500 mL	X												
6	06/27/17	1019	GC1-NCL-8-1	W	1	500 mL	X												DPR sample, see page 2 CoC
7	06/27/17	1035	GC2-NCL-8-1	W	1	500 mL	X												DPR sample, see page 2 CoC
8																			
9																			DPR CoC #
10																			
11																			
12																			
13																			
14																			
15																			
Relinquished By: <i>Mark Lee</i>		Date/Time: 6-27-17 1830		Received By: FEDEX		Instructions/Remarks Please send invoice to VALENT LABS										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com			
Relinquished By:		Date/Time: 6/28/17 1325		Received By: <i>Ally 52E on ice</i>															
Relinquished By:		Date/Time:		Received By:															



**NORTH COAST  
LABORATORIES LTD.**

July 13, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn:

Order No.: 1706452  
Invoice No.: 134487  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W8D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SSB-NCL-8-1-D

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 13-Jul-2017

**WorkOrder:** 1706452

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

The relative percent difference (RPD) between the laboratory control samples was above the acceptance limit for thiobencarb. This indicates that the sample results could be variable. Since there were no detectable levels of analyte in the sample, the data were accepted.

Date: 13-Jul-2017

WorkOrder: 1706452

# ANALYTICAL REPORT

Client Sample ID: SSB-NCL-8-1-D

Received: 6/28/2017

Lab ID: 1706452-01A

Collected: 6/27/2017 9:25

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	6/30/2017	7/10/2017

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706452  
**Project:** 20154800.003A Task 01 RPP-W8D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34879	34879	THIOW	µg/L	7/10/2017 8:11:37 PM	6/30/2017						
		ORLCMSMS2_170710A		1306866							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1706452  
**Project:** 20154800.003A Task 01 RPP-W8D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34879	34879	THIOW	µg/L	7/10/2017 8:31:26 PM	6/30/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306867						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	1.133	0.50	1.00	0	113%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34879	34879	THIOW	µg/L	7/10/2017 8:51:16 PM	6/30/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306868						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9097	0.50	1.00	0	91.0%	70	120	1.13	21.9%	20	R

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 358429

Project No. 20154800.003A Task 01		Project Name RPP- W8D1		No. of Containers	Type of Containers	Analysis										Receiving Lab:
L.P. No. (PO No.)	Samplers: (Signature/Number) Mark Lee/ Mehdi Galouei					Thiobencarb										
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix													
1	06/27/17	0925	SSB-NCL-8-1-D	W	1	500 mL	X									
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

Relinquished By: <i>Mehdi Galouei</i>	Date/Time 6/27/17 1830	Received By: FEDEX	Instructions/Remarks Please send invoice to KLEINFELDER	Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com
Relinquished By:	Date/Time 6/28/17 1325	Received By: <i>9/00 5.2°C</i>		
Relinquished By:	Date/Time	Received By:		



**NORTH COAST  
LABORATORIES LTD.**

July 13, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W9D1

Order No.: 1707043  
Invoice No.: 134486  
PO No.: CR-2507/VP-39377  
ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-9-1
02A	SSB-NCL-9-1
03A	BS1-NCL-9-1
04A	CBD5-NCL-9-1
05A	CBD1-NCL-9-1
06A	GC1-NCL-9-1
07A	GC2-NCL-9-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 13-Jul-2017

**WorkOrder:** 1707043

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 13-Jul-2017

WorkOrder: 1707043

**ANALYTICAL REPORT**

Client Sample ID: SR1-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-01A

Matrix: Aqueous

Collected 7/5/2017 8:00

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/7/2017	07/11/17 1:28

Client Sample ID: SSB-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-02A

Matrix: Aqueous

Collected 7/5/2017 9:15

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	7/7/2017	07/11/17 1:47

Client Sample ID: BS1-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-03A

Matrix: Aqueous

Collected 7/5/2017 10:10

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/7/2017	07/11/17 2:07

Client Sample ID: CBD5-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-04A

Matrix: Aqueous

Collected 7/5/2017 11:10

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.17</i>		J	0.51	0.15	µg/L	1.0	7/7/2017	07/11/17 2:27

Client Sample ID: CBD1-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-05A

Matrix: Aqueous

Collected 7/5/2017 12:30

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.18</i>		J	0.51	0.15	µg/L	1.0	7/7/2017	07/11/17 2:47

Client Sample ID: GC1-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-06A

Matrix: Aqueous

Collected 7/5/2017 10:20

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	7/7/2017	07/11/17 3:07

Date: 13-Jul-2017

WorkOrder: 1707043

# ANALYTICAL REPORT

Client Sample ID: GC2-NCL-9-1

Received: 7/6/2017

Lab ID: 1707043-07A

Matrix: Aqueous

Collected 7/5/2017 10:40

Test Name: Thiobencarb

Analyst: KAS

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
<i>Thiobencarb</i>	<i>0.17</i>		J	0.50	0.15	µg/L	1.0	7/7/2017	07/11/17 3:26

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707043  
**Project:** 20154800.003A Task 01 RPP-W9D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34900	34900	THIOW	µg/L	7/11/2017 12:09:01 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306877						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707043  
**Project:** 20154800.003A Task 01 RPP-W9D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34900	34900	THIOW	µg/L	7/11/2017 12:28:45 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306878						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7900	0.50	1.00	0	79.0%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34900	34900	THIOW	µg/L	7/11/2017 12:48:30 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306879						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8830	0.50	1.00	0	88.3%	70	120	0.790	11.1%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 177649

1707043

Project No. 20154800.003A Task 01		Project Name RPP- W9D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) Mark Lee/ Lauren Short					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	07/05/17	0800	SR1-NCL-9-1	W	1	500 mL	X										
2	07/05/17	0915	SSB-NCL-9-1	W	1	500 mL	X										
3	07/05/17	1010	BS1-NCL-9-1	W	1	500 mL	X										
4	07/05/17	1110	CBD5-NCL-9-1	W	1	500 mL	X										
5	07/05/17	1230	CBD1-NCL-9-1	W	1	500 mL	X										
6	07/05/17	1020	GC1-NCL-9-1	W	1	500 mL	X										DPR sample, see page 2 CoC
7	07/05/17	1040	GC2-NCL-9-1	W	1	500 mL	X										DPR sample, see page 2 CoC
8																	
9																	DPR CoC #
10																	
11																	
12																	
13																	
14																	
15																	
Relinquished By: <i>Mark Lee</i>		Date/Time: 7/5/17   1600		Received By: FEDEX		Instructions/Remarks <b>Please send invoice to VALENT LABS</b>										Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com	
Relinquished By:		Date/Time: 7/6/17   1045		Received By: <i>Loep 5.8°C</i>													
Relinquished By:		Date/Time:		Received By:													



**NORTH COAST  
LABORATORIES LTD.**

July 13, 2017

Kleinfelder  
2882 Prospect Park Dr.  
Suite 200  
Rancho Cordova, CA 95670  
Attn: Craig Riddle

Order No.: 1707042  
Invoice No.: 134485  
PO No.:  
ELAP No.1247-Expires July 2017

RE: 20154800.003A Task 01 RPP-W9D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CBD1-NCL-9-1-RB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

Roxanne Moore, Project Manager

**Date:** 13-Jul-2017

**WorkOrder:** 1707042

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 13-Jul-2017

WorkOrder: 1707042

# ANALYTICAL REPORT

Client Sample ID: CBD1-NCL-9-1-RB

Received: 7/6/2017

Lab ID: 1707042-01A

Collected: 7/5/2017 12:30

Test Name: Thiobencarb

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND		0.51	µg/L	1.0	7/7/2017	7/11/2017

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1707042  
**Project:** 20154800.003A Task 01 RPP-W9D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34900	34900	THIOW	µg/L	7/11/2017 12:09:01 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306877						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/13/2017

**CLIENT:** Kleinfelder  
**Work Order:** 1707042  
**Project:** 20154800.003A Task 01 RPP-W9D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34900	34900	THIOW	µg/L	7/11/2017 12:28:45 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306878						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.7900	0.50	1.00	0	79.0%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34900	34900	THIOW	µg/L	7/11/2017 12:48:30 AM	7/7/2017						
Client ID:		Run ID:	ORLCMSMS2_170710A	SeqNo:	1306879						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8830	0.50	1.00	0	88.3%	70	120	0.790	11.1%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



COC# 365268

1707042

Project No. 20154800.003A Task 01		Project Name <b>RPP- W9D1</b>			No. of Containers	Type of Containers	Analysis										Receiving Lab: <b>North Coast Laboratories</b> 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649																			
L.P. No. (PO No.)		Samplers: (Signature/Number) Mark Lee/ Lauren Short					<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Thiobencarb</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>										Thiobencarb																			
Thiobencarb																																				
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix																																	
1	07/05/17	1230	CBD1-NCL-9-1-RB	W	1	500 mL	X																													
2																																				
3																																				
4																																				
5																																				
6																																				
7																																				
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14																																				
15																																				
Relinquished By: <i>Mark Lee</i>		Date/Time 7/5/17 1600		Received By: FEDEX		Instructions/Remarks <b>Please send invoice to KLEINFELDER</b>						Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com																								
Relinquished By:		Date/Time 7/6/17 1045		Received By: <i>Rolle 58°C</i>																																
Relinquished By:		Date/Time		Received By:																																



**NORTH COAST  
LABORATORIES LTD.**

July 20, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Attn: Robin Charlton

RE: 20154800.003A Task 01 RPP-W10D1

Order No.: 1707145

Invoice No.: 134595

PO No.:

ELAP No.1247-Expires July 2017

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	SR1-NCL-10-1
02A	SSB-NCL-10-1
03A	BS1-NCL-10-1
04A	CBD5-NCL-10-1
06A	GC1-NCL-10-1
07A	GC2-NCL-10-1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

**Date:** 20-Jul-2017

**WorkOrder:** 1707145

## CASE NARRATIVE

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### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 20-Jul-2017

WorkOrder: 1707145

**ANALYTICAL REPORT****Client Sample ID:** SR1-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-01A**Matrix:** Aqueous**Collected:** 7/11/2017 7:35**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.50	0.15	µg/L	1.0	7/17/2017	07/18/17 22:12

**Client Sample ID:** SSB-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-02A**Matrix:** Aqueous**Collected:** 7/11/2017 8:45**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/18/17 22:32

**Client Sample ID:** BS1-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-03A**Matrix:** Aqueous**Collected:** 7/11/2017 9:55**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/18/17 22:52

**Client Sample ID:** CBD5-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-04A**Matrix:** Aqueous**Collected:** 7/11/2017 10:50**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/18/17 23:31

**Client Sample ID:** GC1-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-06A**Matrix:** Aqueous**Collected:** 7/11/2017 10:30**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/18/17 23:51

**Client Sample ID:** GC2-NCL-10-1**Received:** 7/12/2017**Lab ID:** 1707145-07A**Matrix:** Aqueous**Collected:** 7/11/2017 11:20**Test Name:** Thiobencarb**Analyst:** BLT**Reference:** RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/19/17 0:11

North Coast Laboratories, Ltd.

Date: 7/20/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707145  
**Project:** 20154800.003A Task 01 RPP-W10D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-34940	34940	THIOW	µg/L	7/18/2017 9:13:31 PM	7/17/2017						
Client ID:		Run ID:	ORLCMSMS2_170718A	SeqNo:	1308126						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/20/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707145  
**Project:** 20154800.003A Task 01 RPP-W10D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34940	34940	THIOW	µg/L	7/18/2017 9:53:09 PM	7/17/2017						
Client ID:		Run ID:	ORLCMSMS2_170718A	SeqNo:	1308128						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9651	0.50	1.00	0	96.5%	70	120	0			
Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34940	34940	THIOW	µg/L	7/18/2017 11:12:09 PM	7/17/2017						
Client ID:		Run ID:	ORLCMSMS2_170718A	SeqNo:	1308132						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8811	0.50	1.00	0	88.1%	70	120	0.965	9.10%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



Project No. 20154800.003A Task 01		Project Name RPP- W10D1		No. of Containers	Type of Containers	Analysis										Receiving Lab: North Coast Laboratories 5680 West End Rd., Arcata CA 95521 Attn: Roxanne Moore (707) 822-4649	
L.P. No. (PO No.)	Samplers: (Signature/Number) Mark Lee/ Lauren Short					Thiobencarb											
Date MM/DD/YY	Sample I.D. Time HH-MM-SS	Sample I.D.	Matrix														
1	07/11/17	0735	SR1-NCL-10-1	W	1	500 mL	X										
2	07/11/17	0845	SSB-NCL-10-1	W	1	500 mL	X										
3	07/11/17	0955	BS1-NCL-10-1	W	1	500 mL	X										
4	07/11/17	1050	CBD5-NCL-10-1	W	1	500 mL	X										
5	07/11/17	1355	CBD1-NCL-10-1	W	1	500 mL	X										
6	07/11/17	1030	GC1-NCL-10-1	W	1	500 mL	X										DPR sample, see page 2 CoC
7	07/11/17	1120	GC2-NCL-10-1	W	1	500 mL	X										DPR sample, see page 2 CoC
8																	
9																	DPR CoC #
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished By:	Date/Time: 7/11/17 1600	Received By: FEDEX	Instructions/Remarks: Please send invoice to VALENT LABS	Send Results To: rfiroved@calrice.org jenny.krenz@CH2M.com criddle@kleinfelder.com sgardner@kleinfelder.com
Relinquished By:	Date/Time: 7-12-17 1326	Received By:		
Relinquished By:	Date/Time:	Received By:		



**NORTH COAST  
LABORATORIES LTD.**

July 20, 2017

Valent USA Corporation  
6560 Trinity Court  
Dublin, CA 94568

Order No.: 1707210  
Invoice No.: 134602  
PO No.:  
ELAP No.1247-Expires July 2017

Attn:

RE: 20154800.003A Task 01 RPP W10D1

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	CBD1-B-10-1-B1

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**Approved for release by:**

**Date:** 20-Jul-2017

**WorkOrder:** 1707210

## CASE NARRATIVE

---

### J Flags:

Test results that fall below the reporting limit and above the method detection limit are considered approximate values.

Date: 20-Jul-2017

WorkOrder: 1707210

# ANALYTICAL REPORT

Client Sample ID: CBD1-B-10-1-B1

Received: 7/14/2017

Lab ID: 1707210-01A

Matrix: Aqueous

Collected 7/11/2017 13:55

Test Name: Thiobencarb

Analyst: BLT

Reference: RM-16W-5a

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>Flag</u>	<u>Limit</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Thiobencarb	ND			0.51	0.15	µg/L	1.0	7/17/2017	07/18/17 21:33

North Coast Laboratories, Ltd.

Date: 7/20/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707210  
**Project:** 20154800.003A Task 01 RPP W10D1

**QC SUMMARY REPORT**

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Client ID	Run ID	SeqNo									
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MB-34940	34940	THIOW	µg/L	7/18/2017 9:13:31 PM	7/17/2017						
		ORLCMSMS2_170718A		1308126							
Thiobencarb	ND	0.50									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 7/20/2017

**CLIENT:** Valent USA Corporation  
**Work Order:** 1707210  
**Project:** 20154800.003A Task 01 RPP W10D1

**QC SUMMARY REPORT**  
 Laboratory Control Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-34940	34940	THIOW	µg/L	7/18/2017 9:53:09 PM	7/17/2017						
Client ID:		Run ID:	ORLCMSMS2_170718A	SeqNo:	1308128						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.9651	0.50	1.00	0	96.5%	70	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-34940	34940	THIOW	µg/L	7/18/2017 11:12:09 PM	7/17/2017						
Client ID:		Run ID:	ORLCMSMS2_170718A	SeqNo:	1308132						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thiobencarb	0.8811	0.50	1.00	0	88.1%	70	120	0.965	9.10%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1707210

PROJECT NO.		PROJECT NAME			NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS										RECEIVING LAB:	
L.P. NO. (P.O. NO.)		SAMPLERS: (Signature/Number)					<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); border: 1px solid black; padding: 2px;">Thiobencarb</div> <div style="flex-grow: 1; border: 1px solid black; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>										INSTRUCTIONS/REMARKS	
DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX															
1	7-11-17	1355	CB01-B-10-1-B1	W	1	500ml Amber	X										Note - This sample was poured from a 1-liter pack-up sample (# CB01-B-10-1) in KLR Sample Control. The 1-Liter bottle was shaken, then approximately 250 ml poured into the 500ml bottle, sample # CB01-B-10-1-B1. The 1-Liter was then shaken again, after which the remaining 250ml volume was poured into the 500ml sample bottle. Reference KLR chain of custody (back-up samples) # 236705 dated 7-11-17. - Mark Lee	
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20																		

Mark Lee

Relinquished by: (Signature) <i>Mark Lee</i>	Date/Time 7-13-17 1800	Received by: (Signature) <i>Red Ex</i>	Instructions/Remarks: Please send invoice to Valent Labs	Send Results To: r.firoved@calrice.org jenny.krenz@ch2m.com criddle@kleinfelder.com sgardner@kleinfelder.com Attn:
Relinquished by: (Signature)	Date/Time 7/14/17 1355	Received by: (Signature) <i>A Coel</i>		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		